

# **The living conditions and health status of international immigrants in Chile:**

**Comparisons among international immigrants,  
and between them and the Chilean-born**

**Volume 2 of 2**

Appendix Book

Baltica Beatriz Cabieses Valdes

Submitted in accordance with the requirements for the degree of  
Doctor of Philosophy

**The University of York  
Department of Health Sciences**

August 2011

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## **APPENDIX 1**

### **THE CASEN 2006 QUESTIONNAIRE [IN SPANISH ONLY]**





**Observatorio Social**  
Universidad Alberto Hurtado



**GOBIERNO DE CHILE**  
MINISTERIO DE PLANIFICACION  
Integro y protege



**FUNDACION PARA  
LA SUPERACION  
DE LA POBREZA**

Segmento         Folio    Encuesta    Teléfono:

Dirección:         Comuna:

Sitio:    Vivienda:    Hogar 2001:    Hogar 2006:    Localidad:

Encuestador (a):  Códigos:

Supervisor (a):

Codificador (a):

Digitador (a):

Supervisión	1. Sí	2. No
Encuesta completa		
Flujo lógico		
Letra legible		
Entrevistado idóneo		

Fecha de la entrevista:

1º Visita:   2006 2º Visita:   2006 3º Visita:   2006

Inicio	Término	Inicio	Término	Inicio	Término
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Observaciones

Observatorio Social Universidad Alberto Hurtado  
Alameda 1869, 5º piso – Santiago Centro. Telefones (56-2) 692-0253, 692-0227. Fax: (56-2) 692-0360  
informa@osuah.cl http://www.osuah.cl

**Módulo Residentes**

*Indique a todos los miembros del hogar. Escriba el nombre de cada uno de todos los integrantes del hogar e indique quién está presente en la entrevista.*

**Presencia en la entrevista (P)**

1. Contada   
2. Presente pero no contada   
3. No está Presente

Total Personas:

**1. Parentesco con el jefe o la jefa del hogar**

01. Jefe(a) de Hogar 06. Yerno o nuera  
02. Espos(a) / pareja 07. Hermano(a)  
03. Hij(a) de ambos 08. Cuñado(a)  
04. Hij(a) solo del jefe 09. Nieto(a)  
05. Hij(a) solo del esposo(a) pareja 10. Otro familiar  
06. Padre o madre 11. Servicio Doméstico  
07. Suegro(a) 12. Pueras Adentro

**2. Sexo**  1. Hombre  3. Edad   
2. Mujer  (#Mes cumplidos)

**4. Núcleo familiar**  
(Anote el N° de orden del Núcleo)  
1. Principal  
2. Segundo  
3. Tercero  
n. Enclavo  
0. Servicio Doméstico

**5. Relación de parentesco con el jefe o jefa del núcleo**  
01. Jefe(a) de Núcleo  
02. Espos(a) / Pareja  
03. Hij(a) de ambos  
04. Hij(a) solo del jefe  
05. Hij(a) solo del esposo(a) pareja  
12. Otro familiar  
13. No familiar

**6. ¿Cuál es su estado civil actual?** *(Escriba alternativa)*  
1. Casado(a)  
2. Conviviente o pareja  
3. Anulado(a)  
4. Separado(a)  
5. Divorciado  
6. Viudo(a)  
7. Soltero (a)

**7. Antes de cumplir 15 años, Ud. vivió la mayor parte del tiempo con:** *Indique para cada parentesco con cuántas personas vivió*

1. Su padre  
2. Su madre  
3. Su abuelo (máximo 2)  
4. Su abuela (máximo 2)  
5. Hermanos  
6. Otros parientes  
7. No parientes  
8. En un internado u hogar menores

**8. Antes de que Ud. cumpliera 15 años, su padre / madre trabajó la mayor parte de tiempo como:**

1. Patrón o empleador con 1 a 4 empleados  
2. Patrón o empleador con 5 o más empleados  
3. Trabajador por cuenta propia  
4. Empleado u obrero  
5. Fuerzas armadas y de Orden  
6. Servicio Doméstico  
7. No trabajaba  
8. No sabe no recuerda

**Alternativas 1, 2 y 8. Registre:**  
0: Si no vivió con la(s) persona(s) o en el lugar que se menciona  
1: Si vivió con la persona o en el lugar que se menciona

**Alternativas 3, 4, 5, 6 y 7. Registre:**  
0: Si no vivió con las personas que se mencionan  
Número (cantidad de personas): si vivió con las personas que se mencionan

P	Nombres	1			2			3			4	5	6	7								Patrón	Madre
		1	2	3	1	2	3	1	2	3				4	5	6	7	8					
1																							
2																							
3																							
4																							
5																							
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9																							
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2																							

Patrimonio																				
Personas de 5 años o más				Jefes de núcleo																
<b>9. ¿Tiene Ud. actualmente, en uso y en funcionamiento: ?</b> a. Teléfono móvil 1. Si, prepago 2. Si, contrato 3. No				<b>¿Tiene Ud. actualmente, en uso y en funcionamiento: ?</b> b. Lavadora automática c. Refrigerador d. Calefón e. Teléfono fijo f. Conexión a TV Cable/TV Satelital / Digital 1. Si 2. No  g. Vehículo uso particular (cuántos) h. Vehículo uso laboral (cuántos)  i. Computador 1. Si 2. No → <i>pase a P10</i>  j. Conexión a Internet CONMUTADA k. Conexión a Internet DEDICADA 1. Si 2. No  <i>*Para alternativas g y h registre la cantidad.</i>										<b>10. ¿Tiene usted un terreno para desarrollar actividades económicas rurales?</b> 1. Si 2. No  <b>11. ¿Posee usted: ...?</b> a. Maquinaria agrícola ¿Qué tipo de maquinaria? _____  b. Animales ¿Qué animales? ¿Cuántos? _____  c. Carreta d. Galpón e. Otros. <i>Especifique</i> _____  1. Si 2. No  <i>*Para cada alternativa marque 1 (Si) ó 2 (No), y en el caso de alternativas a, b y e especifique qué tipo y cantidad</i>						
				<b>9</b>																
				<b>10</b>						<b>11</b>										
				a b c d e f g (nº) h (nº) i j k						a (nº) b (nº) c d e (nº)										
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Módulo Educación																				
Jefes de núcleo y Cónyuges				Todos				Todos los que no asisten				Menores de 30 años que no asisten								
<b>1. Indique el último Curso aprobado y Tipo de estudio al que llegaron sus padres (Indique padre y madre)</b> <i>Tipo de estudios:</i> 01. Educación Preescolar o Educación Parvularia 02. Preparatoria (Sistema Antiguo) 03. Educación Básica 04. Escuela Especial (Diferencial) 05. Humanidades (Sistema Antiguo) 06. Educación Media Científico-Humanística (Sistema Antiguo) 07. Técnica, Comercial, Industrial o Normalista (Sistema Antiguo) 08. Educación Media Técnica Profesional 09. Centro de Formación Técnica incompleta (sin título) 10. Centro de Formación Técnica completa ( con título) 11. Instituto Profesional incompleta (sin título) 12. Instituto Profesional completa (con título) 13. Educación Universitaria incompleta (sin título) 14. Educación Universitaria completa (con título) 15. Universitaria de Postgrado 0. Ninguno X. No sabe				<b>2. ¿Asiste actualmente a algún establecimiento educacional, jardín infantil, sala cuna u otro programa preescolar no convencional?</b> 1. Si → <i>pase a 6.a</i> 2. No				<b>3. ¿El último año que Ud. asistió formalmente a un establecimiento educacional, jardín infantil, sala cuna, o a algún programa preescolar no convencional fue...?</b> 1. Antes del 2001 2. Año 2001 3. Año 2002 4. Año 2003 5. Año 2004 6. Año 2005 7. Este año ( <i>antes de nov.</i> ) 8. Nunca ha asistido a un establecimiento educacional  <i>*Alternativas 1, 2 y 8 no contestan P6</i>				<b>4. ¿Cuál es la principal razón por la cual no asiste actualmente a un jardín infantil, sala cuna, programa preescolar no convencional o algún establecimiento educacional?</b> <i>(No lea las alternativas)</i> 01. No tiene edad suficiente. 02. No es necesario porque lo(s) cuidan en la casa 03. No existe establecimiento cercano 04. Dificultad de acceso o movilización 05. Dificultad económica 06. No tiene dinero para financiar la movilización 07. Trabaja o busca trabajo para aportar al presupuesto del hogar 08. Trabaja o busca trabajo para cubrir sus gastos 09. Trabajo o busca trabajo para aportar al cuidado de sus hijos 10. Ayuda en la casa o quehaceres del hogar 11. Requiere establecimiento especial 12. Metamorfosis (paternidad) o embarazo 13. No le interesa 14. Prepara la Prueba de Selección Universitaria PSU 15. Está realizando el Servicio Militar 16. Enfermedad que lo inhabilita 17. Problemas familiares 18. Problemas de conducta o rendimiento 19. Terminó de estudiar 20. Otra razón.								
				<b>2</b>				<b>3</b>				<b>4</b>								
<b>Padre</b>		<b>Madre</b>																		
Curso Tipo		Curso Tipo																		
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9																				
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Módulo Educación											
Menores de 30 años que no asisten	Personas menores de 30 años								Todos		
<p><b>5. Dado que Ud. no asiste a un establecimiento educacional ¿Qué piensa hacer el próximo año?</b> (No lea las alternativas)</p> <p>1. Estudiar 2. Trabajar 3. Quehaceres del Hogar 4. Cuidar a los niños 5. Estudiar y trabajar 6. Servicio Militar 7. Otras actividades 8. Es menor de 6 años y no estudia 99. No sabe</p>	<p><b>6.a Indique para cada año si asistió a un Establecimiento Educacional</b></p> <p>1. Si 2. No → Pase a 6b</p> <p><i>*Registre esta información los años 2002, 2003, 2004, 2005.</i></p> <p><b>6.b ¿Por qué no estudió ese año?</b></p> <p>01. Terminó de estudiar 02. Por dificultad económica 03. Por estar trabajando o buscando trabajo 04. Se casó 05. Por maternidad (paternidad) o embarazo 06. Por cambio de domicilio 07. Por repetencia (académicos)</p> <p><i>* Si en algún año interrumpió sus estudios y luego se reintegró pase a P7</i></p>				<p><b>7. Especifique la principal razón por la que volvió estudiar</b></p> <p>1. Se resolvieron mis dificultades económicas 2. Preferí estudiar que continuar trabajando 3. Mis hijos ya no requieren tanto de mi presencia 4. Se resolvió mi problema de salud 5. Quería terminar mis estudios 6. Para obtener un ingreso más alto 7. Cumplicé edad para incorporarse a estudiar 8. Otro</p>				<p><b>8. Indique el Curso y Tipo de estudio actual (para los que están estudiando) o el último curso aprobado (para los que no están estudiando)</b></p> <p>Tipo de estudios:</p> <p>01. Educación Preescolar o Educación Parvularia (Sistema Antiguo) 02. Educación Básica (Diferencial) 03. Escuela Especial (Sistema Antiguo) 04. Educación Media Científico-Humanística (Sistema Antiguo) 05. Educación Media Técnica Profesional 06. Centro de Formación Técnica incompleta (sin título)</p> <p>10. Centro de Formación Técnica completa (con título) 11. Instituto Profesional incompleta (sin título) 12. Instituto Profesional completa (con título) 13. Educación Universitaria incompleta (sin título) 14. Educación Universitaria completa (con título) 15. Universitaria de Postgrado 16. Educación básica de adultos 17. Educación media de adultos 0. Ninguno</p>		
5	2002		2003		2004		2005		7	8	
	6a	6b	6a	6b	6a	6b	6a	6b		Curso	Tipo
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3											
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Módulo Educación						
Estudiantes (asisten)						
<p><b>9. Indique el Establecimiento Educacional, Sala Cuna, Jardín Infantil al cual asiste actualmente (Año 2006).</b> Escriba con letra clara y legible el Nombre del Establecimiento (9.a), Dirección (9.b) y Comuna (9.c) en que se ubica</p> <p><i>*En caso de los Programas Especiales a preescolares, anote el Nombre del Programa Especial y Lugar donde se imparte</i></p> <p><i>*En caso de Educación Superior, anote el Nombre de la Universidad, Centro de Formación Técnica o Instituto Profesional.</i></p>			<p><b>10. ¿Cuál es la dependencia administrativa del establecimiento?</b> <i>Para Educación Pre Básica, Básica y Media</i></p> <p>1. Municipal 2. Particular Subvencionada 3. Corporación en Administración Delegada 4. Particular no subvencionado 5. JUNJI</p> <p><i>Sólo Educación Superior</i></p> <p>09. Universidad del Consejo de Rectores 10. Universidad Privada 11. Instituto Profesional 12. Centro de Formación Técnica 99. No sabe</p> <p><b>11. ¿Paga colegiatura o financiamiento compartido?</b> (No se aplica a educación superior)</p> <p>1. Si (indique monto mensual) 2. No</p>		<p><b>12. ¿Hasta qué nivel educacional cree Ud. que llegará el niño o joven?</b></p> <p>1. Terminar Enseñanza Básica 2. Terminar Enseñanza Media, Científica-Humanista 3. Terminar Enseñanza Media, Técnica Profesional 4. Terminar Enseñanza Técnica Superior 5. Terminar Enseñanza Superior Universitaria 99. No sabe</p> <p><i>*Anotar la información en la casilla del niño o joven</i></p>	
9.a Nombre del Establecimiento	9.b Dirección del Establecimiento	9.c Comuna	10	11	11 \$Monto	12
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6

Módulo Empleo										
Situación ocupacional personas de 12 años y más			Desocupados		Cesantes/Buscan trabajo por 1ª vez		Inactivos			
<b>1. ¿Trabajó usted la semana pasada?</b> 1. Si → pasa como Ocupado a P10  2. No, se insiste: ¿Ni siquiera una hora?  ¿Ni ayudando a un familiar?  ¿Ni como aprendiz sin paga?  ¿Ni vendiendo algún producto?  1. Si → pasa como Ocupado a P10 2. No → pasa a P2	<b>2. Aunque no trabajó la semana pasada, ¿tenía algún empleo del cual estuvo ausente temporalmente por licencia, huelga, enfermedad, vacaciones u otra razón?:</b> 1. Si → pasa como Ocupado a P10  2. No		<b>4. ¿Cuántas semanas ha estado buscando trabajo?</b> (Señale el número de semanas cumplidas, si es menos de una semana anote 00)  <b>5. ¿Ha trabajado alguna vez?:</b> 1. Si → pasa como Cesante a P6.a 2. No → pasa como Busca trabajo por 1ª vez a P6.b		<b>6.a A los cesantes, ¿Qué tipo de ocupación u oficio realizaba en su último trabajo?</b> → Pasa a P33  <b>6.b A los que buscan trabajo por primera vez, ¿Para qué profesión, oficio o actividad se preparó en su Enseñanza?</b>  Si no tiene oficio anote "sin oficio". → Pasa a P33		<b>7. ¿Por qué no buscó trabajo en los últimos dos meses?:</b> 01. Quehaceres del hogar 02. No tiene con quien dejar los niños 03. Enfermedad crónica o invalidez 04. Estudiante 05. Jubilado(a), montepiado(a) o pensionado(a)  06. Rentista esporádico 07. Tiene trabajo en buscar 08. Se aburrió de trabajar 09. No tiene interés en trabajar 10. Otra razón  <b>8. ¿Aceptaría una oferta de trabajo remunerado?:</b> 1. Si → pasa a P9 2. No → pasa a P33  <b>9. ¿Cuál es el salario por el cual Ud. está dispuesto a trabajar?</b> → pasar a P33			
1	2	3	4 n° semanas	5	6		7	8	9 monto	
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Módulo Empleo									
Ocupados (responden alternativa 1 en P1 o 1 en P2)									
<b>10. ¿Cuál es su ocupación u oficio actual o qué hace usted en su trabajo principal?</b> Describa la ocupación o el oficio de la persona en su actual trabajo principal. No basta anotar: empleado, obrero, agricultor, comerciante, jornalero.  <i>Anote siempre:</i> abogado, albañil, contador, corredor de propiedades, chofer de taxi, dactilógrafo, embotallador de bebidas, escribiente, estucador, gasfiter, ingeniero agrónomo, jornalero agrícola, mayordomo, tecedor de radio, sacerdote, médico, vendedor ambulante, etc.  <i>*Si la persona entrevistada declara que no tiene oficio, deberá describirse lo más preciso posible la actividad que desempeña y por ningún motivo podrá venir sin oficio</i>	<b>11. ¿Qué clase de actividad realiza la empresa, industria o servicio donde desempeña su trabajo principal actual?</b>  Describa la actividad a que se dedica la empresa, negocio o establecimiento en que la persona realiza su actividad u ocupación principal. En el caso de los trabajadores que son del tipo transitorio anotar la actividad que realiza la empresa en que presta sus servicios.  <i>Por ejemplo:</i> fábrica de zapatos, taller de reparación de automóviles, etc.  <i>*No deberá anotarse simplemente: fábrica, taller, etc., como tampoco el nombre o razón social de ellos.</i>		<b>12. ¿Cuántas personas trabajan en ese negocio, oficina, empresa o predio?</b> (Incluya al entrevistado) A. Una (1) persona B. 2 a 5 personas C. 6 a 9 personas D. 10 a 49 personas E. 50 a 199 personas F. 200 y más personas X. No sabe  <b>13. ¿Dónde realiza la actividad o dónde se ubica el negocio, oficina o empresa en la cual trabaja?</b> 01. Dentro de su vivienda 02. Dentro de otra vivienda 03. En taller o local anexo a una vivienda 04. En un establecimiento independiente 05. En un predio agrícola 06. En una concesión o área de manejo marítimo 07. A domicilio 08. En la vía pública, transporte terrestre, aéreo o acuático 09. Teletrabajo 10. En otro lugar. Especifique X. No sabe  <i>*Alternativas 1, 2, 3, 4 y 10 → pasan a P4.a</i> <i>*Alternativas 5, 6, 7, 8 y 9 → pasan a P4.b</i>				<b>14.a ¿Dónde queda la actividad, negocio, oficina u empresa en la cual trabaja?</b> Señale la intersección de calles más cercana y la comuna. Si no recuerda la intersección de calles anote el nombre de la empresa, oficina o negocio.  <i>Si no sabe la intersección de calles ni el nombre de la empresa, oficina o negocio, anotar "X"</i>  <b>14.b ¿En qué comuna o comunas realiza principalmente su trabajo?</b> Si no sabe, anotar "X"		
10 ocupación u oficio	11	12	13	14.a intersección calles o nombre empresa u oficina		14.a comuna	14.b comuna 1	14.b comuna 2	

Módulo Empleo																				
Ocupados (responden alternativa 1 en P1 o 1 en P2)					Ocupados asalariados códigos 3, 4, 5, 6, 7 y 9 en P19															
<b>15. ¿Cuántas horas trabaja efectivamente en su empleo principal?</b> <i>(señale horas semanales)</i>		<b>16. Su actual empleo principal es de tipo:</b> 1. Permanente 2. Temporal 3. A plazo fijo 4. Por tarea o servicio 5. Otra. <i>Especifique</i>			<b>17. ¿Desde cuándo tiene su actual empleo?</b> <i>Señale mes y año (año a 4 dígitos)</i>		<b>18. Además de su propio esfuerzo, ¿gracias a quién o quiénes cree usted que consiguió su actual empleo?</b> 01. Familiares 02. Amigos o vecinos 03. Ex compañeros de trabajo 04. Ex empleadores 05. Oficinas municipales de Intermediación laboral (OMIL) 06. A Programa PUENTE o su Apoyo familiar 07. Agencias privadas de empleo 08. A la institución en que estudio o se capacitó 09. Decidió trabajar por su cuenta (emprendió actividad Independiente) 10. Bolsa de empleo en Internet 11. Al municipio 12. Otro 13. A Nadie		<b>19. En su ocupación principal, Ud. trabaja como: ...</b> 1. Patrón o Empleador 2. Trabajador por Cuenta Propia 3. Empleado u Obrero del Sector Público (Gov. Central o Municipal) 4. Empleado u Obrero de empresas públicas 5. Empleado u Obrero del Sector Privado 6. Servicio Doméstico Puertas Adentro 7. Servicio Doméstico Puertas Afuera 8. Familiar no remunerado 9. FFAA. y del Orden *Alternativas 1 y 2 → pasan a P26 *Alternativa 8 → pasa a P29		<b>20. En su trabajo actual principal, ¿tiene contrato de trabajo escrito?:</b> 1. Sí, firmó 2. Sí, pero no ha firmado 3. No tiene 4. No se acuerda o no sabe si firmó contrato		<b>21. En su actual empleo principal, su relación contractual es de tipo:</b> 1. Plazo indefinido 2. Plazo fijo 3. Por obra, faena o servicio 4. De aprendizaje 5. Servicios transitorios 99. No sabe		<b>22. En su actual empleo principal, ¿usted boletea (trabaja a honorarios)?</b> 1. Sí 2. No 99. No sabe		<b>23. Según su contrato de trabajo o el trato con su empleador, su jornada de trabajo normal es de:</b> 1. Una jornada completa 2. Jornada parcial		<b>24. ¿Qué tipo de horario tiene su trabajo actual?:</b> 1. Sólo diurna 2. Sólo nocturna 3. Rotativa o turnos	
15	16	17 mes	17 año	18		19		20	21	22	23	24	1							
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Módulo Empleo							
Ocupado Asalariado Privado código 5 en P19		Empleadores (código 1 en P19) y trabajadores independientes (código 2 en P19)					
<b>Sólo a ocupados del sector privado</b>		<b>25. ¿Se encuentra afiliado o al seguro de cesantía?</b> 1. Sí 2. No 9. No sabe		<b>26.a Este trabajo lo realiza:</b> 1. Todos los meses del año 2. Sólo en algunos meses ¿Cuales? _____ 3. Solo por solicitud específica de personas o clientes		<b>26.b ¿Utiliza para su trabajo algún tipo de herramientas, maquinaria, etc.?</b> 1. Sí ¿Cuales? _____ 2. No	
		<b>27.a En esta actividad ¿Usted paga impuestos o permisos para realizarla?</b> 1. Sí → Pasa a P28a 2. No → Pasa a P 27b		<b>27.b Si no lo hacía, ¿Cuál era el motivo?</b> 1. No sabía que había que hacerlo 2. No me convenía 3. No sabía cómo hacerlo 4. No era necesario 5. No había iniciado actividades 6. Nunca he pagado impuestos 7. Otra. <i>Especifique</i>		<b>28.a ¿De qué personas o instituciones recibe apoyo para realizar esta actividad?</b> 1. Municipalidad 2. Gobernación 3. Bancos 4. ONG's 5. Amigos 6. Vecinos 7. Familiares 8. Otras instituciones de gobierno. <i>Especifique</i> 9. Ninguna → Pasa a P29	
		<b>28.b ¿Qué tipo de apoyo recibe?</b> 1. Capacitación 2. Crédito en dinero 3. Facilitan información 4. Apoyo en sus actividades 5. Entrega de herramientas 6. Otro. <i>Especifique</i>					
	25	26.a	26.b	27.a	27.b	28.a	28.b
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Módulo Empleo						
Ocupación secundaria (responden alternativa 1 en P1 o 1 en P2)				15 años y más		
<p><b>29. ¿Tiene otra u otras ocupaciones además del trabajo principal? (actividad u ocupación secundaria)</b>                      1. Sí → Pasa a P30                      2. No → Pasa a P33</p> <p><b>30. ¿Qué clase de actividad realiza la empresa, industria o servicio donde desempeña su trabajo secundario?</b>                      Describa la actividad a que se dedica la empresa, negocio o establecimiento en que la persona realiza su actividad u ocupación secundaria. En el caso de los trabajadores que son del tipo transitorio anotar la actividad que realiza la empresa en que presta sus servicios.                      Por ejemplo: fábrica de zapatos, taller de reparación de automóviles, etc.</p> <p><i>*No deberá anotarse simplemente: fábrica, taller, etc., como tampoco el nombre o razón social de ellos.                      *Recuerde que en el Módulo de Ingresos se levantarán los ingresos de este tipo de ocupación</i></p>		<p><b>31. ¿En su ocupación secundaria usted trabaja como...?</b>                      1. Patrón o empleador                      2. Trabajador por cuenta propia                      3. Empleado u obrero del sector público (Gov. Central o Municipal)                      4. Empleado u obrero de empresas públicas</p> <p><b>32. ¿Cuántas personas trabajan en ese negocio, oficina, empresa o predio? (Induya al entrevistado)</b>                      A. Una (1) persona                      B. 2 a 5 personas                      C. 6 a 9 personas                      D. 10 a 49 personas</p>		<p><b>33. ¿Se encuentra cotizando en algún sistema previsional (sistema de pensiones)?</b>                      1. Si AFP (Administradora de Fondos de Pensiones)                      2. Si INP (Caja Nacional de Empleados Públicos (CANAEMPU), Caja de Empleados Particulares (EMPART), Servicio de Seguro Social (SSS)                      3. Si, Caja de Previsión de la Defensa Nacional (CAPREDENA)</p> <p><b>34. ¿Por qué no cotiza?</b>                      1. Por problemas financieros en la empresa                      2. Porque el empleador me lo solicitó                      3. Porque yo pedí que no me las paguen                      4. Porque no tengo la obligación de cotizar                      99. No sabe</p>		
29	30 actividad		31	32	33	34
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9						
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Módulo Empleo							
15 años y más							
<p><b>35. Independiente de si trabaja o no ¿cómo piensa financiar su vejez (o solventar los gastos durante su vejez)? Anote máximo 3 opciones.</b>                      01. Con una pensión de AFP                      02. Con una pensión del INP                      03. Con ayuda de sus hijos                      04. Con arriendo de propiedades                      05. Con renta de su empresa o negocio                      06. Con un seguro de vida con ahorro                      07. Con sus ahorros                      08. Con una pensión asistencial                      09. Con ayuda del Estado                      10. No lo ha pensado                      11. De otra forma</p>		<p><b>36. ¿Ha asistido a algún curso de capacitación laboral en los últimos 5 años?</b>                      1. Sí, a través de la empresa donde trabaja (o trabajo) financiado por SENCE (vía franquicia tributaria).                      2. Sí, a través de la empresa donde trabaja (o trabajo) pero sin financiamiento SENCE (curso interno de la empresa)                      3. Sí, a través de un programa público de becas de capacitación (por ejemplo: FOSIS, INDAP, SENCE, CHILECALIFRICA, SERCOTEC, u otros)                      4. Sí, con recursos de usted o su familia                      5. Sí, con una beca de institución privada                      6. Sí, otro medio                      7. No ha asistido → Pase a siguiente módulo</p> <p><i>*Alternativas 1 a 6 → Pasan a P37.</i></p>			<p><b>38. La capacitación recibida o la que actualmente recibe tenía o tiene por finalidad:</b>                      1. Capacitarse en un oficio para encontrar un trabajo                      2. Aprender un nuevo oficio para cambiar de trabajo o actividad                      3. Mejorar su desempeño en su actual actividad                      4. Mejorar sus conocimientos en general sin que ello se relacione necesariamente a su puesto de trabajo.                      5. Mejorar sus ingresos                      6. Cumplir con los requisitos que demanda su actual actividad laboral (licencias de conducir profesionales, licencias especiales, etc.)                      7. Acreditar los conocimientos y habilidades laborales (certificar competencias) en su oficio o profesión.                      8. Otro. Especifique</p>		
35 1ª opción		35 2ª opción	35 3ª opción	36	37		38
					2002    2003    2004    2005    2006		
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Módulo Ingresos													
Ingresos de los asalariados (trabajadores dependientes en ocupación principal) responde códigos 3, 4, 5, 6, 7 ó 9 en p19 del módulo empleo													
Remuneración Monetaria													
<b>1. En el mes pasado, ¿cuál fue su sueldo o salario líquido en su ocupación principal?</b> <i>Incluya:</i> Los descuentos por planilla de: -préstamos y consumos en casas comerciales, -cuotas sindicales o a clubes, -días de licencia médica y subsidio maternal. <i>Excluya:</i> Los descuentos legales correspondientes a: -sistema previsional, -sistema de salud, -impuestos a las remuneraciones.  Los pagos por: - horas extras - aguinaldos y otros - bonificaciones, beneficios, - gratificaciones, - asignaciones familiares.  (Anote el monto declarado en pesos, si no tuvo remuneración o ingresos, anote cero)			<b>2. ¿A qué jornada correspondió ese sueldo o salario del mes anterior?</b> (Anote el total de horas y días mensuales pactados por contrato o acuerdo con su empleador. Excluya las horas extraordinarias.)			<b>3. Además del ingreso declarado en la pregunta 1, ¿recibió el mes pasado otros ingresos provenientes de su ocupación principal? (Lea Alternativas)</b> <i>Tipo de ingreso:</i> - Horas extras - Comisiones - Bonificación o aguinaldos y otras asignaciones especiales - Gratificación - Viáticos no sujetos a rendición  →(Continúan alternativas en la siguiente página)  ¿Cuál es la periodicidad de este ingreso? (P) 1. Diario 2. Semanal 3. Quincenal 4. Mensual 5. Bimestral 6. Trimestral 7. Cuatrimestral 8. Semestral 9. Anual							
1	2		3 Horas extra		3 Comisiones		3 Bonificación o aguinaldo		3 Gratificación		3 Viático no sujeto rendición		
\$	Horas	Días	\$	P	\$	P	\$	P	\$	P	\$	P	
													1
													2
													3
													4
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													6
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													10
													13

Módulo Ingresos													
Ingresos de los asalariados (trabajadores dependientes en ocupación principal) responde códigos 3, 4, 5, 6, 7 ó 9 en p19 del módulo empleo													
Remuneración Monetaria													
<b>Además del ingreso declarado en la pregunta 1, ¿recibió el mes pasado otros ingresos provenientes de su ocupación principal? (Lea Alternativas)</b> <i>Tipo de ingreso:</i> - Asignaciones por vivienda, transporte, educación de los hijos y semejantes - Vales de alimentación - Propinas - Otros. Especifique. 90. No recibió otros ingresos 99. No sabe  ¿Cuál es la periodicidad de este ingreso? (P) 1. Diario 2. Semanal 3. Quincenal 4. Mensual 5. Bimestral 6. Trimestral 7. Cuatrimestral 8. Semestral 9. Anual								<b>4. Durante los últimos 12 meses, además de los ingresos informados en las preguntas 1 y 3, ¿Ha recibido Ud. alguno de los siguientes tipos de ingreso derivados de su ocupación principal? (Lea Alternativas)</b> - Bonificaciones o Aguinaldos y otras asignaciones especiales - Gratificaciones - Décimo tercer mes o meses adicionales por sobre la remuneración mensual - Otros similares. <i>Especifique.</i> 90. No ha recibido ninguno de estos ingresos. 99. No sabe  (Anote el monto anual correspondiente)					
3 Asignación vivienda Transp.		3 Vales alimentación		3 Propinas		3 Otros		4 Bonificación	4 Gratificación	4 Mes 13 o más	4 Otro similar	90	
\$	P	\$	P	\$	P	\$	P	\$	\$	\$	\$	99	
													1
													2
													3
													4
													5
													6
													7
													8
													9
													10
													14

Módulo Ingresos											Ocupación Secundaria	
Ingresos de los asalariados (trab. depend. en ocup. principal) responde códigos 3, 4, 5, 6, 7 ó 9 en p19 del módulo empleo											90	
Remuneración Especies											99	
<p><b>5. En el mes pasado, ¿recibió en su trabajo...?</b> (Lea Alternativas)</p> <ul style="list-style-type: none"> <li>- Bienes o servicios producidos por el empleador</li> <li>- Alimentos y bebidas</li> <li>- Vivienda o alojamiento</li> <li>- Automóvil para uso privado</li> <li>- Servicio de transporte</li> <li>- Estacionamiento gratuito</li> <li>- Teléfono</li> <li>- Vestimenta</li> <li>- Servicios de guardería o salacuna</li> <li>- Leña</li> <li>- Otros similares. Especifique</li> </ul> <p>90. No recibió ningún pago en especie 99. No sabe</p> <p><i>Estime el monto que hubiera tenido que pagar</i></p>											<p><b>6. El mes pasado, ¿cuál fue el ingreso líquido total, considere ingresos en dinero y en especie, por otra u otras ocupaciones además de su ocupación principal?</b> (Se incluye el total de los ingresos líquidos recibidos el mes anterior por todos los trabajos distintos al principal, contemplando ingresos en dinero y en especie. En caso de haber ingresos en especie, deben valorarse a precios de mercado, según juicio de la persona encuestada.)</p> <p>*Anotar: 90. No tiene 99. No sabe</p>	
5.1 Bienes	5.2 Alimentos	5.3 Vivienda	5.4 Automov	5.5 Serv.Tpte	5.6 Estacionamiento	5.7 Teléfono	5.8 Vestimenta	5.9 Sala cuna	5.10 Leña	5.11 Otros	90	99
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

Módulo Ingresos			
Ingresos de Empleadores y Trabajadores por Cuenta Propia o Independientes en Ocupación Principal (responden códigos 1 ó 2 en p19 del módulo empleo)			Ocupación Secundaria
<p><b>7. ¿Cuánto dinero retiró el mes pasado de su negocio o actividad para sus gastos propios o de su hogar? (Incluya sueldo si lo tiene)</b> (Anotar el monto declarado en pesos, si no retiró dinero, anote cero)</p>	<p><b>8. El mes pasado, ¿cuánto retiró en productos de su negocio o actividad para consumo propio o de su hogar?</b> Estime el monto que hubiera tenido que pagar</p> <p><i>*Si no retiró productos anote cero.</i></p>	<p><b>9. Durante los últimos 12 meses, ¿cuánto recibió Ud. por ganancias derivadas de la venta de productos silvoagropecuarios, mineros o pesqueros en su negocio o actividad?</b> Si no recibió ganancias de este tipo, anote cero.</p>	<p><b>10. El mes pasado, ¿cuál fue el ingreso líquido total, contemplando ingresos en dinero y en especie, por otra u otras ocupaciones además de su ocupación principal?</b> (Se incluye el total de los ingresos líquidos recibidos el mes anterior por todos los trabajos distintos al principal, contemplando ingresos en dinero y en especie. En caso de haber ingresos en especie, deben valorarse a precios de mercado, según juicio de la persona encuestada.)</p> <p>*Si no tuvo remuneración o ingresos, anote 90. *En caso de que la persona no responda - a pesar de la insistencia - ya sea porque se niega a declarar el ingreso o porque no es capaz de recordar, anote 99.</p>
7	8	9	10
\$	\$	\$	\$



<b>Módulo Ingresos</b>										
<b>Otros Ingresos de origen Privado</b>										
A todas las Personas										
Mes pasado										
<b>11. El mes pasado, ¿recibió ingresos por ... ?</b> - Arriendo de propiedades urbanas - Arriendo de maquinarias, animales o implementos 90. No recibió este tipo de ingreso			<b>12. El mes pasado, ¿Recibió ingresos por: ... ?</b> - Pensión de alimentos (12.1) - Dinero aportado por familiares ajenos al hogar residentes en el país (12.2) - Dinero aportado por familiares ajenos al hogar residentes fuera del país (12.3) 90.No recibió este tipo de ingreso			<b>13. El mes pasado, ¿Recibió ingresos por: ... ?</b> - Remuneración por trabajos ocasionales (13.1) - Trabajos realizados antes del mes anterior (septiembre u octubre) (13.2) - Seguro de desempleo o de cesantía (13.3) 90. No recibió este tipo de ingresos				
11.1 Prop. Urbana	11.2 Maquinas	90	12.1 (\$)	12.2 (\$)	12.3 (\$)	90	13.1 (\$)	13.2 (\$)	13.3 (\$)	90
\$	\$		\$	\$	\$		\$	\$	\$	

17

<b>Módulo Ingresos</b>												
<b>Otros Ingresos de origen Privado</b>												
A todas las Personas												
Últimos doce meses												
<b>14. En los últimos 12 meses (Noviembre 2005 a Octubre 2006), ¿Recibió ingresos por: ... ?</b> - Intereses por depósitos - Dividendo por acciones o bonos financieros - Retiro de utilidades 90. No recibió este tipo de ingresos			<b>15. En los últimos 12 meses (Noviembre 2005 a Octubre 2006), ¿Recibió ingresos por: . ?</b> - Arriendo de propiedades agrícolas (tierras e instalaciones) - Arriendo de propiedades por temporadas (urbanas o rurales) 90.No recibió este tipo de ingresos			<b>16. En los últimos 12 meses (Noviembre 2005 a Octubre 2006), ¿consumió productos agropecuarios producidos o recolectados por el hogar (Carnes, Lácteos, Huevos y aves, Productos de la huerta, Leña, Productos del mar, Otros alimentos, etc.)                      Estime el monto que hubiera tenido que pagar</b> 90. No recibió este tipo de ingresos			<b>17. En los últimos 12 meses (Noviembre 2005 a Octubre 2006), ¿Recibió ingresos por: ... ?</b> - Donaciones de instituciones o personas ajenas al hogar -Otros ingresos. Especifique. 90. No recibió este tipo de ingresos			
14.1 (\$)	14.2 (\$)	14.3 (\$)	90	15.1 (\$)	15.2 (\$)	90	16 (\$)	90	17.1 (\$)	17.2 (\$)	90	
Interés depósito	Dividendo	Retiro utilidades		Arriendo agrícola	Arriendo temporada		Auto consumos		Donación Institución	Otros Ingresos		

18

### Módulo Ingresos

#### Previsión

Personas de 15 años y más

A Todas las Personas

**18. ¿Recibió el mes pasado asignación familiar?**  
*Anote el N° de asignaciones recibidas y el tramo de ingresos, en el casillero del beneficiario.*  
 01. \$4.126 (sueldo bruto hasta \$128.445)  
 02. \$4.014 (sueldo bruto entre \$128.446 y \$251.585)  
 03. \$1.307 (sueldo bruto entre \$251.586 y \$392.387)  
 90. No percibe asignación familiar

**19. El mes pasado, ¿recibió ingresos por: ... ?**  
 - Pensión de vejez o jubilación  
 - Rentas vitalicias  
 - Pensión de invalidez  
 - Montepío o pensión de viudez  
 - Pensión de orfandad  
 - Otro. Especifique  
 90. No recibió este tipo de ingresos.

**Institución que la paga: (I)**  
 1. AFP, Administradora de Fondos de Pensiones  
 2. INP, Instituto de Normalización Previsional  
 3. Cajas de las Fuerzas Armadas (CAPREDENA o DIPRECA)  
 4. Mutual  
 5. Compañía de Seguros  
 6. Otra institución. Especifique.

18		90	Pensión Vejez		Pensión Vitalicia		Pensión Invalidez		Montepío o Viudez		Pensión Orfandad		Otro		90
Tramo	N° asignac		19.1 (\$)	I	19.2 (\$)	I	19.3 (\$)	I	19.4 (\$)	I	19.5 (\$)	I	19.6 (\$)	I	

1  
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19

### Módulo Ingresos

#### Transferencia del Estado a Todas las Personas

**20. ¿Recibió el mes pasado ingresos por alguno de los siguientes?**  
**PASIS** (Excluya asignaciones familiares)  
 01. Pensión asistencial de vejez o ancianidad (\$ 44.186 mensual entre 65 y 69 años)  
 02. Pensión asistencial de vejez o ancianidad (\$ 47.103 entre 70 y 74 años de edad)  
 03. Pensión asistencial de vejez o ancianidad (\$ 51.503 mensual de 75 años y más)  
 04. Pensión asistencial de invalidez (\$ 44.186 mensual)  
 05. Pensión asistencial por deficiencia mental (\$ 44.186 mensual)  
**SUF**  
 06. Subsidio familiar al menor o recién nacido (\$ 4.126)  
 07. Subsidio familiar a la mujer embarazada (\$41.260 por una sola vez, equivalente a 10 meses)  
 08. Subsidio familiar a la madre (\$ 4.126)  
**SUF DUPLO**  
 09. Subsidio familiar por deficiencia mental (\$ 8.252)  
 10. Subsidio familiar por invalidez (\$ 8.252)

**Subsidios del Estado ...?**  
**Subsidio de Cesantía**  
 11. \$17.338 por mes (0 a 90 días de cesantía)  
 12. \$11.560 por mes (91 a 180 días de cesantía)  
 13. \$8.669 por mes (181 a 360 días de cesantía)  
**SAP**  
 14. SAP (Subsidio Agua Potable)  
**Bonos del Sistema de Protección Social (Programa PUENTE)**  
 15. \$ 11.139 mensual durante los seis primeros meses.  
 16. \$ 8.487 mensual entre el mes 7 y el año.  
 17. \$ 5.835 mensual entre los meses 13 y 18.  
 18. \$ 4.126 mensual entre los meses 19 y 24  
 19. Bono de Egreso: \$ 4.126 mensual entre los meses 25 y 60  
 20. Bono extraordinario por alza de combustible (\$18.000, pagado una sola vez)  
 21. Otro subsidio del Estado (Bono basura, bono agrícola u otro bono estatal).  
 90. No recibió este tipo de ingresos

20 PASIS		20 SUF		20 SUF DUPLO		20 CESANTÍA		20 SAP		20 BONO SPS		20 BONO EXTRA		20 OTRO		90
T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	T	Monto(\$)	
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

20

Módulo Ingresos																
Personas de 18 años y más																
Bienes de Capital				Deudas y Otros Gastos				Jefes de Núcleo								
<p><b>21. Tiene Ud. alguno de los siguientes ahorros, inversiones, acciones o similares?</b> (Anote hasta 3 opciones)</p> <p>01. Si, Ahorro para la vivienda 02. Si, Ahorro en AFV 03. Si, Ahorro previsional voluntario 04. Si, Ahorro cuenta 2 AFP 05. Si, Cuenta Ahorro Bancaria 06. Si, Depósito a plazo 07. Si, Inversiones en Fondos Mutuos 08. Si, Acciones o bonos de empresa 09. Si, Prestamos a terceros 10. Si, Otros Ahorros 90. No tiene ahorro</p> <p><i>*(Señale el Tipo (t) y el tramo (\$) según el monto total por cada tipo de ahorro indicado)</i></p>				<p><b>22. Tiene ud. alguna de las siguientes deudas?</b> (Anote hasta 4 opciones)</p> <p>01. Si, Tarjetas de crédito bancaria 02. Si, Línea de crédito bancaria 03. Si, Casas comerciales 04. Si, Prestamos de consumo bancario 05. Si, Prestamos de consumo en financiera 06. Si, Crédito automotriz 07. Si, Crédito hipotecario 08. Si, Crédito social (CCAAF) 09. Si, Deudas Educativas 10. Si, Prestamos de parientes o amigos 11. Si, Créditos de prestamistas 12. Si, Casa de crédito prendario (tia rica) 13. Si, Fiado 14. Si, Otras deudas 90. No tiene deudas → <i>pase a P 24</i></p> <p><i>*(Señale el Tipo (t), Tramo del total adeudado (\$) y la cuota mensual en pesos (Cuota) para cada tipo de deuda indicada)</i></p>				<p><b>23. En los últimos doce meses, ¿Ha tenido Usted serias dificultades económicas que hayan impedido pagar sus deudas?</b></p> <p>1. Si 2. No</p>			<p><b>Tramos de montos para inversiones y deudas</b></p> <p>01. 30.000 o menos 02. 30.001 a 50.000 03. 50.001 a 70.000 04. 70.001 a 100.000 05. 100.001 a 150.000 06. 150.001 a 200.000 07. 200.001 a 250.000 08. 250.001 a 300.000 09. 300.001 a 400.000 10. 400.001 a 500.000 11. 500.001 a 750.000 12. 750.001 a 1.000.000 13. 1.000.001 a 1.500.000 14. 1.500.001 a 2.000.000 15. 2.000.001 a 3.000.000 16. 3.000.001 a 5.000.000 17. 5.000.001 a 10.000.000 18. 10.000.001 a 15.000.000 19. 15.000.001 a 20.000.000 20. Más de 20.000.000</p>					
21.1	21.2	21.3	90	22.1		22.2		22.3		22.4		90	23	Observaciones Ingresos y Activos Financieros		
T	Tramo(\$)	Tramo(\$)	Tramo(\$)	T	\$	Cuota	T	\$	Cuota	T	\$	Cuota	T		\$	Cuota
															1	
															2	
															3	
															4	
															5	
															6	
															7	
															8	
															9	
														10		

21

Módulo Ingresos															
Personas mayores de 15 años presentes					Jefes de Hogar, Pareja o Persona que está a cargo del hogar										
<p><b>24. Desde el punto de vista económico. Ud. diría que durante los últimos 5 años su situación económica personal....</b></p> <p>1. Ha mejorado 2. Se ha mantenido igual de bien 3. Se ha mantenido igual de mal 4. Ha empeorado</p>					<p><b>25. Pensando en los próximos 3 años ¿Cree Ud. que su situación económica personal....</b></p> <p>1. Probablemente mejorará 2. Probablemente se mantendrá igual de bien 3. Probablemente se mantendrá igual de mal 4. Probablemente empeorará</p>					<p><b>26. ¿Cuál de las siguientes alternativas refleja de mejor manera la situación de ingreso de su hogar?</b></p> <p>1. Cubre todos sus gastos básicos y además puede ahorrar o invertir 2. Sus ingresos le permiten cubrir todos sus gastos básicos 3. Debe restringir los gastos básicos para no endeudarse 4. Cubre sus gastos básicos pero debe endeudarse 5. No cubre sus gastos básicos</p>			<p><b>27. ¿De su grupo familiar, quiénes aportan actualmente el primer y segundo ingreso más importante para el hogar?</b> <i>Anote esta información respecto a la relación de parentesco con el jefe de hogar.</i></p> <p>01. Jefe (a) de hogar 02. Esposo (a) o pareja 03. Hijo(a) 04. Hijastro (a) 05. Padre o Madre 06. Suegro (a) 07. Yerno o nuera 08. Nieto (a) 09. Hermano (a) 10. Cuñado (a) 11. Otro familiar 12. No familiar 13. Nadie</p> <p><i>*Recuerde: Esta pregunta intenta identificar al Primer y Segundo perceptor de ingresos del hogar, ya que posteriormente el módulo historia laboral debe ser contestado por el jefe de hogar y el Primer o Segundo perceptor de ingresos.</i></p> <p>En la casilla registre el código correspondiente y además, escriba con letra clara el NOMBRE de pila de la persona que aporta el primer y segundo ingreso más importante en el hogar.</p>		
24	25	26	1° Perceptor de Ingresos		2° Perceptor de Ingresos										
			27	Nombre	27	Nombre									
1															
2															
3															
4															
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22

**Módulo Historial Laboral. Jefe de Hogar**

**Jefe de Hogar**

**1a. En los últimos 5 años (2001-2006), ¿Ha habido en su hogar algún cambio en la familia?** (Por ejemplo, algún miembro se va de la casa, nacimiento o muerte de un miembro, etc.)  
1. Si → Pasa a P+ b  
2. No → Pasa a P 2a

**1b. ¿Cuándo? (mes y año)**  
Señale mes y año de todos los cambios (año a 4 dígitos).

*\*Registre en la matriz de historia laboral del jefe de hogar la incorporación o alejamiento de un miembro, por ejemplo, ante +2 si se incorporan dos miembros al hogar, -1 cuando un miembro ya no está en el hogar.*

**2a. En los últimos 5 años (2001-2006), ¿Se vio usted enfrentado a algún problema económico grave que afecte a los ingresos del hogar?**

1. Si, pérdida del empleo
2. Si, disminución importante del ingreso en el mismo trabajo
3. Si, otros (incendio, robo, deterioro de maquinaria de trabajo, etc.)
4. No → Pasa a P 2e

**2b. ¿Cuándo? (mes y año)**  
Señale mes y año (año a 4 dígitos) de todos los problemas económicos y regístrelo con una "x" en la matriz de historia laboral del jefe de hogar.

**2c. ¿A quién o a quienes acudió para que la/lo ayudara frente a ese problema económico?**

- (Registre esta información para cada problema económico)
01. Parientes o miembros del hogar
  02. Familiares fuera del hogar
  03. Amigos
  04. Vecinos
  05. Organizaciones comunitarias y/o religiosas
  06. Compañeros de trabajo
  07. Instituciones privadas
  08. Instituciones públicas
  09. Algún tipo de seguro
  10. Otro
  11. Ocupa sus ahorros u otros bienes
  12. No acudió a nadie

*\*Alternativas 11 y 12 → pasan a P 2e*

**2d. ¿La ayuda que recibió le sirvió para mejorar su situación económica?**

01. Si
02. No
99. No sabe

	1			2a	2b		2c	2d
	1a	1b Mes	1b Año		b Mes	b Año		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

24

**Salud**

**Todos**

**1a. En los últimos 5 años (2001-2006), ¿Se vio usted enfrentado a algún problema de salud, que demande gran cantidad de cuidados y gastos de recursos?**

1. Si → Pasa a P+ b
2. No → Pasa a P 6

**1b. ¿Cuándo? (mes y año)**  
Señale mes y año (año a 4 dígitos) y para el jefe de hogar, y Primer ó Segundo perceptor regístrelo en la Matriz de historia laboral respectiva.

**2. ¿Dónde se atendió por ese problema de salud?**

- |                                  |  |
|----------------------------------|--|
| 1. Hospital público              | 5. Hospital de las Fuerzas Armadas o del orden |
| 2. Hospital privado, clínica     | 6. Urgencia                                    |
| 3. Consultorio de especialidades | 7. No me quiso atender                         |
| 4. Hospital mutual               | 8. No me pudo atender                          |

**3. ¿El problema enfrentado le obligó a dejar de trabajar?**

1. Si, indefinidamente
2. Si, por un tiempo
3. No
4. No trabaja

**4. El problema enfrentado ¿le significó alguna secuela que le ha exigido continuar con un tratamiento?**

1. Si → Pasa a P 5
2. No → Pasa a P 6

**5. Aproximadamente, ¿Cuánto gasta en promedio al mes por el tratamiento de esa secuela?**

*Anote en pesos cada uno de los gastos (remedios, médicos, exámenes, total).*

Si no tiene dinero para el tratamiento anote "X".

**6. Si actualmente se viera enfrentado a algún problema de salud, que demande gran cantidad de cuidados y gastos de recursos, ¿A quién o a quienes acudiría en primer lugar y en segundo lugar?**

- |  |                                      |
|--|--------------------------------------|
| 01. Parientes o miembros del hogar             | 07. Instituciones privadas           |
| 02. Familiares fuera del hogar                 | 08. Instituciones públicas           |
| 03. Amigos                                     | 09. Ocupa sus ahorros u otros bienes |
| 04. Vecinos                                    | 10. Otro                             |
| 05. Organizaciones comunitarias y/o religiosas | 11. A nadie porque no necesito       |
| 06. Compañeros de trabajo                      | 12. A nadie porque no tengo a quién  |

**7. ¿A qué sistema previsional de salud pertenece usted?**

- |                                  |                         |
|----------------------------------|-------------------------|
| 1. Sistema Público grupo A       | 6. F.F.A.A. y del orden |
| 2. Sistema Público grupo B       | 7. ISAPRE               |
| 3. Sistema Público grupo C       | 8. Ninguno (particular) |
| 4. Sistema Público grupo D       | 9. Otro Sistema         |
| 5. Sistema Público no sabe grupo | 99. No sabe             |

16 años y más

Jefe de Núcleo

**8. Usted diría que su salud es...?**

1. Muy buena
2. Buena
3. Regular
4. Mala
5. Muy mala
9. No sabe

**9. ¿Su familia (núcleo) participa en Chile Solidario, a través de Programa PUENTE?**

1. Si
2. No, no ha sido invitada
3. No, fue invitada pero no aceptó
4. No, estábamos participando, pero nos retiramos
5. No, estábamos participando y ya egresamos.

	1			2	3	4	5				6		7	8	9	
	1a	1b Mes	1b Año				remedios	médicos	exámenes	Total	6 1º lugar	6 2º lugar				
1																
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10																

23

Módulo Historial Laboral. Jefe de Hogar									
Jefe de Hogar									
<p><b>2e. Si actualmente se le presentara un problema económico grave que afecte a los ingresos del hogar, (por ejemplo, pérdida del empleo, una disminución importante del ingreso, incendio, robo, etc.) ¿A quién o a quienes acudiría en primer lugar y en segundo lugar?</b></p> <p>01. Parientes o miembros del hogar                  02. Familiares fuera del hogar                  03. Amigos                  04. Vecinos                  05. Organizaciones comunitarias y/o religiosas                  06. Compañeros de trabajo                  07. Instituciones privadas                  08. Instituciones públicas                  09. Algún tipo de seguro                  10. Ocupa sus ahorros u otros bienes                  11. Otro                  12. A nadie porque no lo necesito                  13. A nadie porque no tengo a quien</p>		<p><b>3. ¿Cuántas veces ha estado sin trabajo en los últimos 5 años?</b> (Anote el número de veces)</p> <p>*Si ha estado trabajado siempre en los últimos 5 años, anote 0 y →pase a P5a</p>		<p><b>5a. En los últimos 5 años (2001-2006) ¿Ha tenido más de un trabajo?</b>                  1. Si → Pasa a P5b                  2. No (Sólo un trabajo) →Pasa a P5c</p> <p><b>5b. ¿Cuándo comenzó esos trabajos? (mes y año) *Señale mes y año del inicio de cada trabajo (año a 4 dígitos).</b></p> <p>Registre con una "X" el inicio de cada trabajo en la casilla "cambio de trabajo" en la <b>matriz de historia laboral del jefe de hogar.</b></p>			<p><b>6a. Señale cuál es su situación laboral ACTUAL,</b>                  1) Trabajando,                  2) Cesante,                  3) Buscando trabajo por 1ª vez,                  4) Inactivo.</p> <p>(Registrar la respuesta en la Matriz de Historia Laboral del Jefe de Hogar en NOVIEMBRE DE 2006 Y SEGUIR MES A MES HACIA ATRÁS HASTA LLEGAR A NOVIEMBRE DE 2001. Utilice los hitos identificados en la misma matriz, como ayuda de memoria para el entrevistado)</p>		
2e		3		5			6		
1º Lugar	2º Lugar		4	5a	5b Mes	5b Año	5c	5d	Registre en la MATRIZ

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HITOS

**MATRIZ Historial Laboral. Jefe de Hogar**

MATRIZ 2006-2001		Año	dic	nov	oct	sep	ago	Jul	Jun	may	abr	mar	feb	ene	Año	dic	nov	oct	sep	ago	Jul	Jun	may	abr	mar	feb	ene	
HITOS	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
STATUS	Trabajo Principal	0													0													
	Trabajo Secundario o polio	6													5													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												
HITOS	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
STATUS	Trabajo Principal	0													0													
	Trabajo Secundario o polio	4													3													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												
HITOS	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
STATUS	Trabajo Principal	0													0													
	Trabajo Secundario o polio	2													1													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												

(Encuestador) Una vez terminado el llenado de la MATRIZ, vaya a la Hoja de Ruta y revise cuál era la situación laboral del Jefe de hogar en el año 2001. Con esta información, haga la pregunta 6b.



**MATRIZ Corrección Historial Laboral. Jefe de Hogar**

(Revise información laboral del encuestado en 2001 en la Hoja de ruta antes de realizar esta pregunta)

6b. Ya que su hogar fue entrevistado anteriormente en el año 2001, sabemos que en ese momento usted estaba \_\_\_\_\_.

¿Esa información es correcta?

1. Si → Pase a P6c

2. No → Llene la MATRIZ CORRECCIÓN HISTORIA LABORAL (Pero ahora desde NOVIEMBRE del año 2001 hacia delante, utilizando para ayudar la recordación los hitos registrados en la MATRIZ anterior)

MATRIZ 2001-2006		Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic	Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic
S T A T U S	Trabajo Principal	2													2												
	Trabajo Secundario o pololo	0													0												
	Estaba Cesante	0													0												
	Buscaba Trabajo por 1ª vez	1													2												
	Era Inactivo																										
		Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic	Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic
S T A T U S	Trabajo Principal	2													2												
	Trabajo Secundario o pololo	0													0												
	Estaba Cesante	0													0												
	Buscaba Trabajo por 1ª vez	3													4												
	Era Inactivo																										
S T A T U S	Trabajo Principal	2													2												
	Trabajo Secundario o pololo	0													0												
	Estaba Cesante	0													0												
	Buscaba Trabajo por 1ª vez	0													6												
	Era Inactivo	5																									
MATRIZ 2001-2006		Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic	Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic

6c. Ahora me gustaría que me contara acerca de los "pololos" o "peguitas" (trabajos secundarios) que Ud. ha realizado al margen de su ocupación principal. Actualmente, ¿Ud. trabaja en algún pololo?  
(Registrar la respuesta en la matriz de historia laboral (pág. 26) en Noviembre del 2006 y seguir mes a mes hacia atrás hasta llegar a Noviembre de 2001. Deben marcarse incluso cuando se haya señalado desempleo).

**Módulo Historial Laboral. Jefe de Hogar**

Jefe de Hogar

Jefe de Hogar Ocupado (para periodos en que trabaja/trabajó)

7a. A partir de la información de la Matriz (si utilizó la Matriz de Corrección use esa información), describa cronológicamente todas las actividades que Usted ha realizado desde noviembre de 2001 hasta la fecha. Indique la fecha de inicio y término de cada actividad. Considere:

- Trabajando (Trabajo principal)
- Cesante
- Buscando trabajo por 1ª vez
- Inactivo

\*Comenzar realizando las preguntas P8 a P24 respecto al periodo de actividad y cuando se termine con éste seguir con las siguientes preguntas.

7b. Considere también:

- Trabajo secundario o "pololo"

8. En ese periodo, ¿en cuál de las siguientes situaciones se encontraba?

1. Trabajando → Pase a P9
2. Cesante → Pase a P23
3. Buscando trabajo por 1ª vez → termine el módulo
4. Inactivo → Pase a P24

9. ¿Cuál es (era) su ocupación u oficio o qué hace (hacia) en su trabajo principal en este periodo? Describa la ocupación o el oficio de la persona en su trabajo principal en ese periodo.

No anote: Obrero, Empleado, Oficinista, Jornalero, etc.

Anote siempre: Abogado, Albañil, Contador, Comedor de propietarios, Chofer de taxi, Dactilógrafo, Embotellador de bebidas, Escribiente, Estucador, Gasfiter, Ingeniero agrónomo, Jornalero agrícola, Locutor de radio, Mayordomo, Médico, Sacerdote, Vendedor ambulante, etc.

\*Si la persona entrevistada declara que no tiene oficio, deberá describirse lo más preciso posible la actividad que desempeña y por ningún motivo deberá venir sin oficio.

10. ¿Qué clase de actividad realiza/ba la empresa, industria o servicio donde desempeña/ba su trabajo principal? Describa la actividad a que se dedica la empresa, negocio o establecimiento en que la persona realiza (realizaba) su actividad u ocupación principal.

\*En el caso de trabajadores que son del tipo transitorio anotar la actividad que realiza la empresa en la que presta sus servicios.

No anote: Industria, Fábrica, Taller, Escuela ni Razón social. Anote siempre: Fábrica de zapatos de cuero, Taller de xxx, Panadería, Colegio particular, etc.

11. ¿Cuántas personas trabajan (trabajaban) en ese negocio, oficina, empresa o predio?

- A. Una (1) persona
- B. 2 a 5 personas
- C. 6 a 9 personas
- D. 10 a 49 personas
- E. 50 a 199 personas
- F. 200 y más personas
- X. No sabe

	7 Inicio		7 Término		8	9	10	11
	Mes	Año	Mes	Año				
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2								
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8								
1								
2								

Módulo Historial Laboral. Jefe de Hogar										
Jefe de Hogar Ocupado (para períodos en que trabaja/trabajó)			Sólo empleadores y trabajadoras independientes (código 1 ó 2 en P15)	Jefe de Hogar asalariado (código 3, 4, 5, 6, 7 y 8 en P15)						
<b>12. ¿Dónde realiza/ba la actividad o dónde se ubica/ba el negocio, oficina o empresa en la cual trabaja/ba?</b> 01. Dentro de su vivienda 02. Dentro de otra vivienda 03. En taller o local anexo a una vivienda 04. En un establecimiento independiente 05. En un predio agrícola 06. En un predio marítimo 07. A domicilio 08. En la vía pública, transporte terrestre, aéreo o acuático. 09. Teletrabajo 10. En otro lugar. 99. No sabe Especifique			<b>15. En su ocupación principal Ud. trabaja/ba como...</b> 1. Patrón o Empleador 2. Trabajador por Cuenta Propia 3. Empleado u Obrero del Sector Público 4. Empleado u Obrero de empresas públicas 5. Empleado u Obrero del Sector Privado 6. Servicio Doméstico Puertas Adentro 7. Servicio Doméstico Puertas Afuera 8. Familiar no remunerado 9. FFAA. y del Orden Alternativas 1 y 2 → <i>Pasan a P16</i> Alternativas 3, 4, 5, 6, 7 y 9 → <i>Pasan a P17</i> Alternativa 8 → <i>Pasa a P21</i>	<b>16. En esta actividad ¿Usted paga (pagaba) impuestos o permisos para realizarla?</b> 1. Sí 2. No → <i>Pase a P20</i>	<b>17. En su trabajo principal, ¿tiene (tenía) contrato de trabajo escrito?:</b> 1. Sí, firmó 2. Sí, pero no ha firmado 3. No tiene 4. No se acuerda o no sabe si firmó contrato <b>18. En su empleo principal, su relación contractual es/era de tipo:</b> 1. Plazo indefinido 2. Plazo fijo 3. Por obra, faena o servicio 4. De aprendizaje 5. Servicios transitorios 9. No sabe <b>19. En su empleo principal, ¿Usted, boleta/ba (trabaja/ba a honorarios)?</b> 1. Sí 2. No 99. No sabe					
12	13 Hrs/Sem	14	15	16	17	18	19			
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								8		
								1		
								2		

29

Módulo Historial Laboral. Jefe de Hogar					
Jefe de Hogar		Cesantes	Inactivos	Encuestador	
<b>20. ¿Cuál era(es) el ingreso mensual promedio en este trabajo o cuanto le deja/ba esta actividad? Anote el monto mensual declarado en pesos.</b> <i>Incluya:</i> Los descuentos por préstamos y consumos en casas comerciales <i>Excluya:</i> Las asignaciones familiares, bonificaciones, gratificaciones, descuentos provisionales y de salud.		<b>23. ¿Recibió usted pago de Subsidio de cesantía o Seguro de cesantía?</b> 01. Subsidio de cesantía 02. Seguro de cesantía 03. No recibió subsidio ni seguro de cesantía 99. No sabe → <i>Pase a P25</i>	<b>24. ¿Cuál fue la razón de su inactividad?</b> 01. Enfermedad o discapacidad 02. Cuidado de los niños 03. Responsabilidades personales o familiares 04. Embarazo 05. Estudiaba o se estaba capacitando 06. Realizaba la práctica 07. Quehaceres de hogar 08. Jubilado 09. No le interesaba trabajar 10. Estaba haciendo el servicio militar 11. Otro 99. No sabe	<b>25. ¿El Jefe de hogar es el Primer receptor de Ingresos?</b> 1. Sí → <i>Aplique la siguiente Historia Laboral al Segundo receptor de Ingresos</i> 2. No → <i>Aplique la siguiente Historia Laboral al Primer receptor de Ingresos</i> * <i>Recuerde:</i> El primer receptor de Ingresos es la persona que aporta el ingreso más importante al hogar. * <i>Puede identificar al Primer y Segundo Receptor de Ingresos en la pregunta 27 del módulo Ingresos.</i>	
20	21	22	23	24	25
Monto mensual					Encuestador

30

**Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

**Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

<p><b>1a. En los últimos 5 años (2001-2006), ¿Ha habido en su hogar algún cambio en la familia? (Por ejemplo, algún miembro se va de la casa, nacimiento o muerte de un miembro, etc.)</b>                  1. Si → Pasa a P 1b                  2. No → Pasa a P 2a</p> <p><b>1b. ¿Cuándo? (mes y año)</b>                  Señale mes y año de TODOS los cambios (año a 4 dígitos).                  Registre en la MATRIZ DE HISTORIA LABORAL del PRIMER O SEGUNDO PERCEPTOR DE INGRESOS la incorporación o alejamiento de un miembro, por ejemplo, anate +2 si se incorporan dos miembros al hogar, -1 cuando un miembro ya no está en el hogar.</p>	<p><b>2a. En los últimos 5 años (2001-2006), ¿Se vio usted enfrentado a algún problema económico grave que afecte a los ingresos del hogar?</b>                  1. Si, pérdida del empleo                  2. Si, disminución importante del ingreso en el mismo trabajo                  3. Si, otros (incendio, robo, deterioro de maquinaria de trabajo, etc.)                  4. No → Pasa a P 2e</p> <p><b>2b. ¿Cuándo? (mes y año)</b>                  Señale mes y año (año a 4 dígitos) de todos los problemas económicos y regístrelo con una "X" en la MATRIZ DE HISTORIA LABORAL</p>	<p><b>2c. ¿A quién o a quienes acudió para que la/lo ayudara frente a ese problema económico?</b>                  (Registre esta información para cada problema económico)                  01. Parientes o miembros del hogar                  02. Familiares fuera del hogar                  03. Amigos                  04. Vecinos                  05. Organizaciones comunitarias y/o religiosas                  06. Compañeros de trabajo                  07. Instituciones privadas                  08. Instituciones públicas                  09. Algún tipo de seguro                  10. Otro                  11. Ocupa sus ahorros u otros bienes                  12. No acudió a nadie</p> <p style="text-align: right;">*Alternativas 11 y 12 → Pasan a P 2e</p>	<p><b>2d. ¿La ayuda que recibió le sirvió para mejorar su situación económica?</b>                  01. Si                  02. No                  99. No sabe</p>
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1			2			2c	2d
1a	1b Mes	1b Año	2a	2b Mes	2b Año		

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HITOS

**Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

**Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

<p><b>2e. Si actualmente se le presentara un problema económico grave que afecte a los ingresos del hogar, (por ejemplo, pérdida del empleo, una disminución importante del ingreso, incendio, robo, etc.) ¿A quién o a quienes acudiría en primer lugar y en segundo lugar?</b>                  01. Parientes o miembros del hogar                  02. Familiares fuera del hogar                  03. Amigos                  04. Vecinos                  05. Organizaciones comunitarias y/o religiosas                  06. Compañeros de trabajo                  07. Instituciones privadas                  08. Instituciones públicas                  09. Algún tipo de seguro                  10. Ocupa sus ahorros u otros bienes                  11. Otro                  12. A nadie porque no lo necesito                  13. A nadie porque no tengo a quién</p>	<p><b>3. ¿Cuántas veces ha estado sin trabajo los últimos 5 años?</b>                  (Anote el número de veces)                  Si afirma no haber estado sin trabajo en los últimos 5 años, anote 0 y → Pase a P 3a</p> <p><b>4. ¿Cuál fue la duración del periodo más largo que estuvo sin trabajo en estos 5 años?</b>                  (Anote número de semanas)</p>	<p><b>5a. En los últimos 5 años (2001-2006) ¿Ha tenido más de un trabajo?</b>                  1. Si → Pasa a P 5b                  2. No (Sólo un trabajo) → Pasa a P 5c</p> <p><b>5b. ¿Cuándo comenzó esos trabajos? (mes y año) *Señale mes y año del inicio de cada trabajo (año a 4 dígitos).</b>                  Registre con una "X" el inicio de cada trabajo en la casilla "cambio de trabajo" en la matriz de historia laboral del primer o segundo perceptor de ingresos.</p> <p><b>5c. ¿En esta ocupación, ¿ha desempeñado siempre la misma función, o ha cambiado desde que comenzó?</b>                  1. Siempre la misma → Pasa a P 6a                  2. Ha cambiado → Pasa a P 5d</p> <p><b>5d. ¿Con qué función partió y en cuál está actualmente? (respuesta abierta)</b></p>	<p><b>6a. Señale cuál es su situación laboral ACTUAL,</b>                  1) Trabajando,                  2) Cesante,                  3) Buscando trabajo por 1ª vez                  4) Inactivo.</p> <p>(Registrar la respuesta en la Matriz de Historia Laboral del Primer o Segundo Perceptor en NOVIEMBRE DE 2006 Y SEGUIR MES A MES HACIA ATRÁS HASTA LLEGAR A NOVIEMBRE DE 2001. Utilice los hitos identificados en la misma matriz, como ayuda de memoria para el entrevistado)</p>
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2e		3	4	5				6
1º Lugar	2º Lugar			5a	5b Mes	5b Año	5c	

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HITOS

Registre en la MATRIZ



**Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

MATRIZ 2006-2001		Año	dic	nov	oct	sep	ago	jul	jun	may	abr	mar	feb	ene	Año	dic	nov	oct	sep	ago	jul	jun	may	abr	mar	feb	ene	
H I T O S	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
S T A T U S	Trabajo Principal	0													0													
	Trabajo Secundario o pololo	6													5													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												
H I T O S	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
S T A T U S	Trabajo Principal	0													0													
	Trabajo Secundario o pololo	4													3													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												
H I T O S	Cambio en familia																											
	Problema de Salud																											
	Crisis Económica	2													2													
	Cambio de Trabajo	0													0													
S T A T U S	Trabajo Principal	0													0													
	Trabajo Secundario o pololo	2													1													
	Estaba Cesante																											
	Buscaba Trabajo por 1ª vez																											
Era Inactivo																												

(Encuestador) Una vez terminado el llenado de la MATRIZ, vaya a la Hoja de Ruta y revise cuál era la situación laboral del Primer Perceptor de ingresos en el año 2001. Con esta información, haga la pregunta 6b.

33

**Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos**

(Revise información laboral del encuestado en 2001 en la Hoja de ruta antes de realizar esta pregunta)

6b. Ya que su hogar fue entrevistado anteriormente en el año 2001, sabemos que en ese momento usted estaba \_\_\_\_\_,

¿Esa información es correcta?

1. Si → Pase a P6c
2. No → Llene la MATRIZ CORRECCIÓN HISTORIA LABORAL. (Pero ahora desde NOVIEMBRE del año 2001 hacia delante, utilizando para ayudar la recordación los hitos registrados en la MATRIZ anterior)

MATRIZ 2001-2006		Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic	Año	ene	feb	mar	abr	may	jun	jul	ago	sep	oct	nov	dic	
S T A T U S	Trabajo Principal	2													2													
	Trabajo Secundario o pololo	0													0													
	Estaba Cesante	0													0													
	Buscaba Trabajo por 1ª vez	1													2													
Era Inactivo																												
S T A T U S	Trabajo Principal	2													2													
	Trabajo Secundario o pololo	0													0													
	Estaba Cesante	0													0													
	Buscaba Trabajo por 1ª vez	3													4													
Era Inactivo																												
S T A T U S	Trabajo Principal	2													2													
	Trabajo Secundario o pololo	0													0													
	Estaba Cesante	0													0													
	Buscaba Trabajo por 1ª vez	5													6													
Era Inactivo																												

MATRIZ 2001-2006 Año ene feb mar abr may jun jul ago sep oct nov dic Año ene feb mar abr may jun jul ago sep oct nov dic

6c. Ahora me gustaría que me contara acerca de los "pololos" o "peguitas" (trabajos secundarios) que Ud. ha realizado al margen de su ocupación principal. Actualmente, ¿Ud. trabaja en algún pololo? (Registrar la respuesta en la matriz de historia laboral (pág. 33) en Noviembre del 2006 y seguir mes a mes hacia atrás hasta llegar a Noviembre de 2001. Deben marcarse incluso cuando se haya señalado desempleo).

34

<b>Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos</b>															
1° Perceptor ó 2° Perceptor de Ingresos				1° ó 2° Perceptor Ocupado (para periodos en que trabaja/trabajó)											
<p>7a. A partir de la información de la Matriz (si utilizó la Matriz de Corrección use esa información), describa cronológicamente todas las actividades que Usted ha realizado o desde noviembre de 2001 hasta la fecha. Indique la fecha de inicio y término de cada actividad.</p> <p>Considere:</p> <ul style="list-style-type: none"> <li>- Trabajando (Trabajo principal)</li> <li>- Cesante</li> <li>- Buscando trabajo por 1ª vez</li> <li>- Inactivo</li> </ul> <p>*Comenzar realizando las preguntas P8 a P24 respecto al periodo de actividad y cuando se termine con éste seguir con los siguientes periodos.</p> <p>7b. Considere también:</p> <ul style="list-style-type: none"> <li>- Trabajo secundario o "pololo"</li> </ul>				<p>9. ¿Cuál es (era) su ocupación u oficio o qué hace (hacia) en su trabajo principal en este periodo? Describa la ocupación o el oficio de la persona en su trabajo principal en ese periodo.</p> <p>No anote: Obrero, Empleado, Oficinista, Jornalero, etc.</p> <p>Anote siempre: Abogado, Albañil, Contador, Corredor de propiedades, Chofor de taxi, Dactilógrafo, Embalsador de bobinas, Escritor/a, Educador, Gasfiter, Ingeniero agrónomo, Jornalero agrícola, Locutor de radio, Mayordomo, Médico, Sacerdote, Vendedor ambulante, etc.</p> <p>*Si la persona entrevistada dedora que no tiene oficio, deberá describirse lo más preciso posible la actividad que desempeña y por ningún motivo deberá venir sin oficio.</p>				<p>10. ¿Qué clase de actividad realiza/ba la empresa, industria o servicio donde desempeña/ba su trabajo principal? Describa la actividad a que se dedica la empresa, negocio o establecimiento en que la persona realiza (realizaba) su actividad u ocupación principal.</p> <p>*En el caso de trabajadores que son del tipo transitorio anotar la actividad que realiza la empresa en la que presta sus servicios.</p> <p>No anote: Industria, Fábrica, Taller, Escuela ni Razón social.</p> <p>Anote siempre: Fábrica de zapatos de cuero, Taller de joy, Panadería, Colegio particular, etc.</p>				<p>11. ¿Cuántas personas trabajan (trabajaban) en ese negocio, oficina, empresa o predio?</p> <p>A. Una (1) persona</p> <p>B. 2 a 5 personas</p> <p>C. 6 a 9 personas</p> <p>D. 10 a 49 personas</p> <p>E. 50 a 199 personas</p> <p>F. 200 y más personas</p> <p>X. No sabe</p>			
7 Inicio		7 Término		8	9	10	11								
Mes	Año	Mes	Año												

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ACTIVIDAD

Tr. sec. unid.

<b>Módulo Historial Laboral. Primer Perceptor de Ingresos (que no sea Jefe de hogar) ó Segundo Perceptor de Ingresos</b>												
1° ó 2° Perceptor de Ocupado (para periodos en que trabaja/trabajó)				Solo empleadores y trabajadores independientes (códigos 1 ó 2 en P16)		1° ó 2° perceptor Ocupado asalariado (códigos 3, 4, 5, 6, 7 y 9 en P16)						
<p>12. ¿Dónde realiza/ba la actividad o dónde se ubica/ba el negocio, oficina o empresa en la cual trabaja/ba?</p> <p>01. Dentro de su vivienda      07. A domicilio</p> <p>02. Dentro de otra vivienda    08. En la vía pública,</p> <p>03. En taller o local anexo        transporte terrestre, a una vivienda    aéreo o acuático.</p> <p>04. En un establecimiento      09. Teletrabajo Independiente</p> <p>05. En un predio agrícola        10. En otro lugar. Especifique</p> <p>06. En un predio marítimo      99. No sabe</p>				<p>15. En su ocupación principal Ud. trabaja/ba como...</p> <p>1. Patrón o Empleador</p> <p>2. Trabajador por Cuenta Propia</p> <p>3. Empleado u Obrero del Sector Público</p> <p>4. Empleado u Obrero de empresas públicas</p> <p>5. Empleado u Obrero del Sector Privado</p> <p>6. Servicio Doméstico Puertas Adentro</p> <p>7. Servicio Doméstico Puertas Afuera</p> <p>8. Familiar no remunerado</p> <p>9. FF.AA. y del Orden</p> <p>Alternativas 1 y 2 → Pasan a P16</p> <p>Alternativas 3, 4, 5, 6, 7 y 9 → Pasan a P17</p> <p>Alternativa 8 → Pasa a P21</p>				<p>16. En esta actividad ¿Usted paga (pagaba) impuestos o permisos para realizarla?</p> <p>1. Si</p> <p>2. No</p> <p>→ Pasa a P20</p>		<p>17. En su trabajo principal, ¿tiene (tenía) contrato de trabajo escrito?:</p> <p>1. Si, firmó</p> <p>2. Si, pero no ha firmado</p> <p>3. No tiene</p> <p>4. No se acuerda o no sabe si firmó contrato</p>		
<p>13. En este trabajo ¿Cuántas horas semanales trabaja/trabajaba o cuantas le dedicó/dedicaba a esta actividad? (Anote horas semanales)</p>								<p>18. En su empleo principal, su relación contractual es/era de tipo:</p> <p>1. Plazo indefinido      4. De aprendizaje</p> <p>2. Plazo fijo                5. Servicios transitorios o servicio</p> <p>99. No sabe</p>				
<p>14. Su trabajo principal es (era) de tipo...</p> <p>1. Permanente                4. Por tarea o servicio</p> <p>2. Temporal                    5. Otra. Especifique</p> <p>3. A plazo fijo</p>								<p>19. En su empleo principal, ¿Usted, boleta/ba (trabaja/ba a honorarios)?</p> <p>1. Si</p> <p>2. No</p> <p>99. No sabe</p>				

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ACTIVIDAD

Tr. sec. unid.



Módulo Vivienda	
<b>1. ¿Su hogar, bajo qué situación ocupa el sitio?</b> 01. Propio pagado 02. Propio pagándose 03. Propiedad compartida (pagada) con las otras viviendas del sitio 04. Propiedad compartida (pagándose) con las otras viviendas del sitio 05. Arrendado con contrato 06. Arrendado sin contrato 07. Cedido por servicios 08. Cedido por familiar u otro 09. Usufructo (sólo uso y goce) 10. Ocupación irregular (de hecho) 11. Comunidad agrícola 12. Tierras indígenas 13. Otro. <i>Especifique</i>	<b>5a. ¿Cuántas camas hay en su vivienda?</b> Si contesta 0 → <i>Pase a P6a</i>
<b>2a. ¿Cuántas viviendas hay en el sitio?</b> Anote "0" en caso de departamento, condominio, conventillo o propiedad compartida. Si contesta "0" ó "1" → <i>Pase a P3</i>	<b>5b. ¿Cuántas de esas camas son matrimoniales?</b>
<b>2b. Su vivienda ¿es la principal del sitio?</b> 1. Sí 2. No	<b>6a. Material predominante en muros exteriores de la vivienda</b> 1. De acero u hormigón armado 2. Albañilería de ladrillo, bloque de cemento o piedra. 3. Tabique forrado por ambas caras (madera u otro) 4. Adobe 5. Tabique sin toro interior (madera u otro) 6. Barro, quincha, pirca u otro artesanal tradicional. 7. Material de desecho y/o reciclaje (cartón, lata, sacos, plástico, etc.) 8. Otro. <i>Especifique</i>
<b>3. ¿Cuántas piezas de cada tipo tiene la vivienda que ocupa?</b> a. Dormitorios (uso exclusivo) b. Estar-comer (uso exclusivo) c. Estar-comer y dormir (uso múltiple) d. Estar-comer y cocinar (uso múltiple) e. Estar-comer, dormir y cocinar (uso múltiple) f. Cocina (uso exclusivo) g. Baño h. Otras piezas no habitables	<b>6b. Estado de conservación de los muros</b> 1. Bueno 2. Aceptable 3. Malo
<b>4. ¿Cuántos metros cuadrados tiene el sitio donde se encuentra su vivienda?</b>	<b>7a. Material predominante en el piso de la vivienda</b> 1. Radier revestido (parquet, cerámica, tabla, linóleo, flexit, baldosa, alfombra, etc.) 2. Radier no revestido 3. Tabla o parquet sobre soleras o vigas 4. Madera, plástico o pastelones directamente sobre tierra 5. Piso de tierra
	<b>7b. Estado de conservación del piso</b> 1. Bueno 2. Aceptable 3. Malo
	<b>8a. Material predominante en el techo de la vivienda</b> 1. Teja, tejuela, losa de hormigón con cielo interior 2. Zinc o pizarra con cielo interior 3. Zinc, pizarra, teja, tejuela o madera, sin cielo interior 4. Fonollita 5. Paja, coltrón, totora o caña 6. Desecho (plásticos, latas, etc.)
	<b>8b. Estado de conservación del techo</b> 1. Bueno 2. Aceptable 3. Malo
	<b>9a. ¿Durante los últimos 5 años (Nov 2001 y Nov. 2006) ha realizado en su vivienda mejoras o transformaciones?</b> 1. Sí, reparaciones de muros, techos, pisos 2. Sí, urbanización del sitio, conexiones a servicios domiciliarios (red de agua potable, alcantarillado, energía eléctrica) 3. Sí, tabiques interiores. 4. No → <i>Pase a P10a</i>
	<b>9b. ¿Cómo financió estas transformaciones?</b> 1. Recursos propios (autoconstrucción, ahorro, ayuda de familiares o amigos) 2. Crédito con Instituciones financieras 3. Subsidio estatal 4. Otro

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Módulo Vivienda	
<b>10a. ¿Durante los últimos 5 años (Nov 2001 y Nov. 2006) ha realizado en su vivienda ampliaciones?</b> 1. Sí, construcción de piezas 2. No → <i>Pase a P11</i>	<b>15. ¿Su hogar es el principal de la vivienda?</b> 1. Sí 2. No
<b>10b. ¿Cómo financió estas ampliaciones?</b> 1. Recursos propios (autoconstrucción, ahorro, ayuda de familiares o amigos) 2. Crédito con Instituciones financieras 3. Subsidio estatal 4. Otro	<b>16. ¿Cuántas piezas de cada tipo ocupa su hogar?</b> a. Dormitorios (uso exclusivo para dormir) b. Estar-comer (uso exclusivo) c. Estar-comer y dormir (uso múltiple) d. Estar-comer y cocinar (uso múltiple) e. Estar-comer, cocinar y dormir (uso múltiple) f. Cocina (uso exclusivo) g. Baño (uso exclusivo) h. Otras piezas no habitables
<b>11. Tipo de vivienda donde Ud. vive:</b> 1. Casa o Casa en cité 2. Casa en condominio 3. Departamento en edificio 4. Pieza en casa o departamento 5. Pieza en casa antigua o conventillo 6. Medagua o Mejora 7. Rancho, ruca o choza 8. Otro tipo (móvil, carpa, etc.) <i>Especifique:</i>	<b>17. Comparado con 5 años atrás, usted percibe que la situación de su barrio o localidad en materia de:</b> 1. Ha mejorado mucho 2. Ha mejorado 3. Está igual 4. Ha empeorado
<b>12. ¿Bajo qué situación ocupa la vivienda?</b> 01. Propia pagada 02. Propia pagándose 03. Propiedad compartida (pagada) con otros hogares de la vivienda 04. Propiedad compartida (pagándose) con otros hogares de la vivienda 05. Arrendada con contrato 06. Arrendada sin contrato 07. Cedita por servicio 08. Cedita por familiar u otro 09. Usufructo 10. Ocupación irregular (de hecho) 11. Otro. <i>Especifique.</i>	a. Calles o veredas b. Espacios públicos para recreación y deportes c. Acceso a locales comerciales para compras diarias d. Acceso a servicio básicos de salud e. Acceso a escuelas, liceos f. Seguridad g. Relación con los vecinos
<b>13. ¿Cuánto paga de arriendo?, o si tuviera que pagar arriendo por esta vivienda, ¿cuánto le costaría el arriendo mensual?</b>	<b>Observaciones:</b>
<b>14. ¿Cuántos hogares hay en la vivienda?</b> Si existe un sólo hogar en la vivienda → <i>pase a P17</i>	

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## **APPENDIX 2**

### **PhD RELATED ABSTRACTS PRESENTED AT INTERNATIONAL CONFERENCES WITH PEER REVIEW COMMITTEE**

1. **Cabieses B**, Tunstall H & Pickett KE (2010) Oral presentation. Access to health care among international immigrants in Chile: a forgotten issue in Chilean health reform? Society of Latin American Studies, 46th Annual Conference 9-10 April 2010, University of Bristol, UK.
2. **Cabieses B**, Tunstall H & Pickett KE (2010) Oral presentation. How can we promote their health if we don't know who they are? Migrants and right to health conference, May 26th-27th 2010, London, UK.
3. **Cabieses B**, Tunstall H & Pickett KE (2010) Oral presentation. Describing social determinants of health of immigrants in Chile. PILAS Conference 2010, University of Manchester, 15-17 June 2010.
4. **Cabieses B**, Tunstall H & Pickett KE (2010). Poster. So, who are they? Using cluster analysis to describe the socioeconomic status of immigrants in Chile. 46<sup>th</sup> ESRC research methods festival, Oxford, UK. 5-8 July 2010.
5. **Cabieses B**, Tunstall H, Pickett K, Gutacker N, Espinoza MA. (2011). Poster. Exploring social determinants of the health of international immigrants in Chile: the global health-status index. Latin American ISPOR conference, Mexico.
6. **Cabieses B**, Tunstall H, Pickett K. (2011). Oral presentation. Living conditions and health status of international immigrants in Chile. PILAS Conference, Cambridge 2011.
7. **Cabieses B**, Tunstall H, Pickett K. (2011). Poster. The health status of international immigrants in Chile: not only the healthy migrant effect. Society for Social Medicine conference, Warwick, UK. September 2011.
8. **Cabieses B**, Tunstall H, Pickett K. (2011). Poster. Socioeconomic patterns among international immigrants in Chile: the use of cluster analysis. ISPOR 14<sup>TH</sup> European congress, Madrid Spain, November 2011.

## APPENDIX 3

### PhD RELATED PUBLICATIONS

#### 3.1 Publications on Migration

1. **Cabieses B**, Tunstall H & Pickett KE. (2010) Social determinants of disability among the immigrant population in Chile. *J Epid Commun Health*; 64 (S1): A58. {ABSTRACT from SSM conference, Belfast 2010}
2. **Cabieses B**, Tunstall H, Pickett K, Zitko P. (2010). Salud de inmigrantes en Chile: observando más allá del efecto del migrante sano. *Rev Chilena de Salud Publica*, 14(2,3): 270-271. {ABSTRACT from the II Chilean Public Health Conference, Santiago 2010}
3. **Cabieses B**, Tunstall H. (2011) Immigration of health workers to Chile: Reshaping the brain-drain phenomenon in Latin America. (2011). *Rev Panamericana de Salud Publica*. (under review)

#### 3.2 Publications on broader topics in Health Inequalities

4. **Cabieses B**. (2010) [Policy interests versus scientific evidence in the UK: long-term friendship or temporary dialogue?] Letter to Editor. *Rev Medica Chile* 138(11): 1467-1468. {Spanish}
5. **Cabieses B**, Espinoza MA, Zitko P. [How to deal with increased individual risk behaviours in Chile?] (2011) Letter to Editor. *Rev Medica de Chile*; 139:686-688. {Spanish}
6. **Cabieses B**, Zitko P, Pinedo R, Albor C, Espinoza MA. (2011) [How to measure social position in health research? A review of international literature] (2011). *Panamerican Journal of Public Health* 29(6):457-68. {Spanish}
7. Zitko P, **Cabieses B**. (2011). Socioeconomic position as a determinant of disability in Chile. *Disability and Health*. (in press)

### **3.3 Book chapter**

**Cabieses B**, Tunstall H. (2011). Section II. Chapter 3: Access to, need and use of health care by international immigrants in Chile. In: Gideon J. and Thomas F. (eds.), Migration, Health and Inequalities Zed Press: England. (in press). 10 000 words.

### **OTHER RELEVANT PUBLICATIONS**

Consultant of the Executive Advisor Committee for the National Health Plan 2011-2020, Undersecretary of Public Health. Ministry of Health of Chile. 2011 [August 2010-May 2011]:

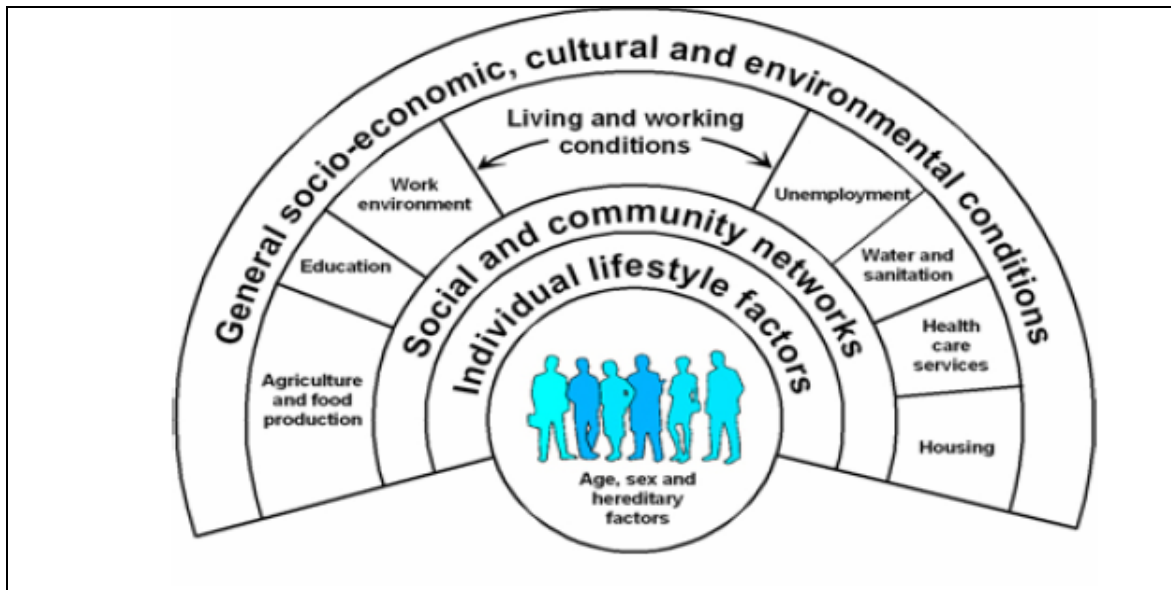
1. Contributed to Chapter 5 on Inequalities in Health and Social Determinants of Health in Chile. National Health Plan 2011-2020
2. Contributed to a sub-section of Chapter 8 on Health Research in Chile. National health Plan 2011-2020

## **APPENDIX 4**

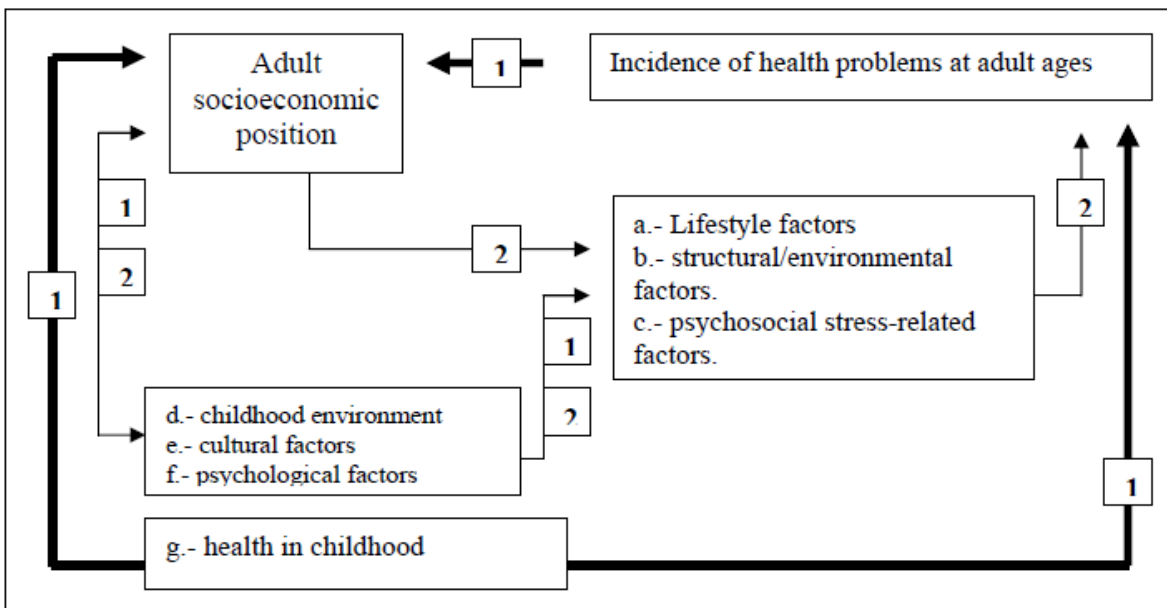
### **MODELS DESCRIBING THE RELATIONSHIP BETWEEN THE SOCIAL DETERMINANTS OF HEALTH AND HEALTH OUTCOMES**



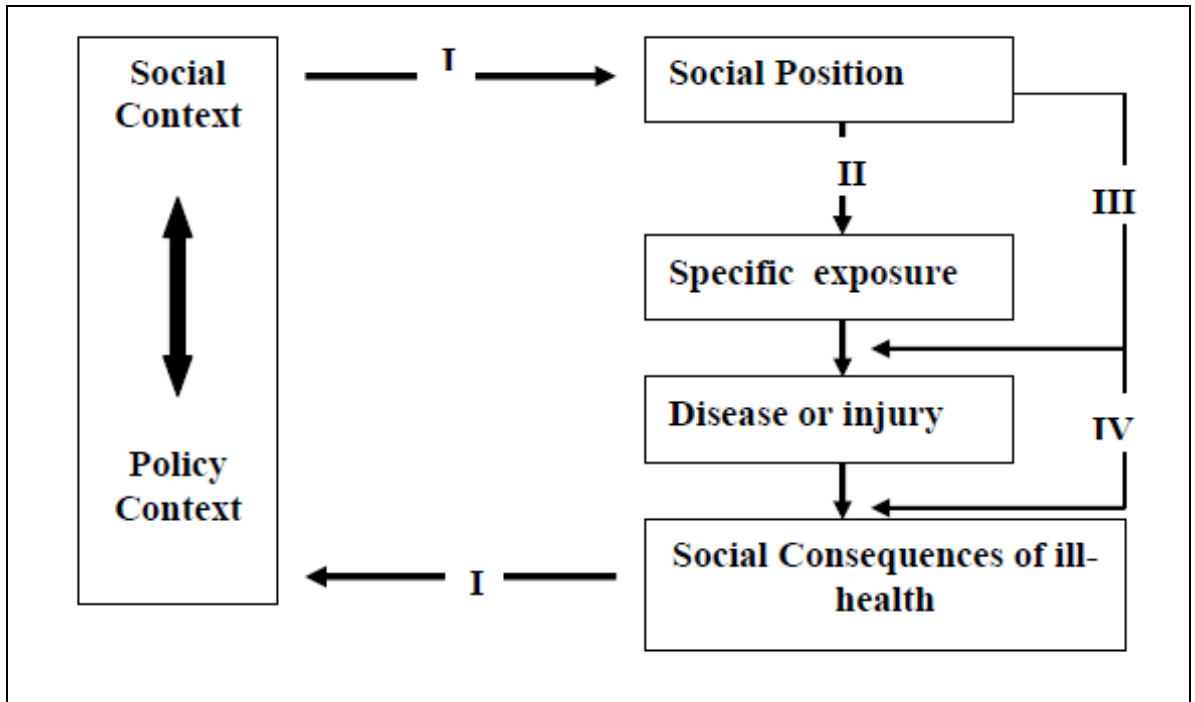
**Appendix 4.1** Model of the Social Determinants of Health by Dahlgren & Whitehead in 1991 (CSDH, 2005)



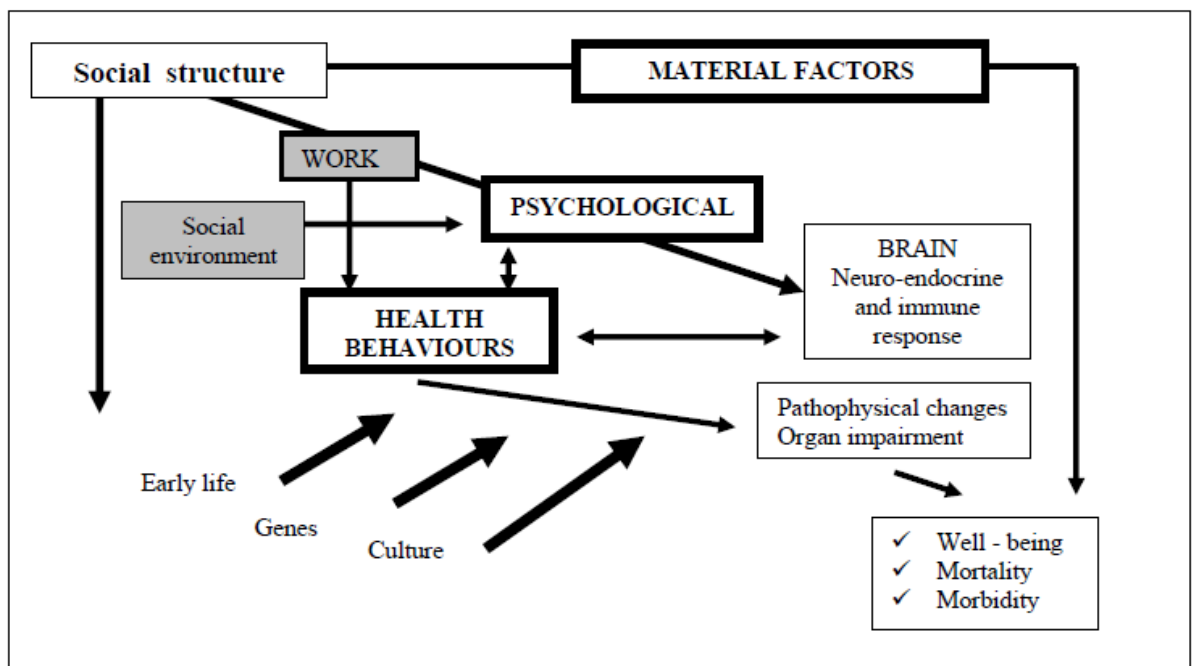
**Appendix 4.2** Model of the SDH by Mackenbach, Van de Mheen, and Stronks in 1998 (CSDH, 2005)



**Appendix 4.3** Model of the SDH by Diderichsen, Evans and Whitehead in 1997 and adapted in 2001 (CSDH, 2005)



**Appendix 4.4** Model of the SDH by Brunner, Marmot and Wilkinson in Acheson Report in 1998 (CSDH, 2005)



## **APPENDIX 5**

### **TABLES FROM CHAPTER 5**

**Appendix 5.1** Study variables selected from the CASEN survey, 2006**Table A5.1 DEPENDENT VARIABLE****Health Outcomes:**

## 1. Recent health events:

<b>Variable Group</b>	<b>Variable subgroup</b>	<b>Variable name</b>	<b>Question asked</b>	<b>Original codes</b>	<b>Re-codification</b>
<b>Any health problem or accident in the last month</b>	Any self-reported health problem or accident in the last month	Any self-reported health problem	In the last 30 days, did you have any health problem, disease or accident?	1: yes, 2: no, 9: don't know	0: no or don't know 1: yes
<b>Medical and emergency care received in the past month</b>	Any medical attention received	Any medical care	Did you receive medical care for your condition?	No category	0: no or don't know 1: yes
	Number of medical attentions received	Number medical care	Did you receive medical care for your condition?	No category	(meddisease) No category (count variable)
	Any emergency attention received	Any emergency care	Did you receive emergency care for your condition?	No category	0: no or don't know 1: yes
	Number of emergency attentions received	Number emergency care	Did you receive emergency care for your condition?	No category	(urgdisease) No category (count variable)

## Chronic health conditions:

Variable Group	Variable subgroup	Variable name	Question asked	Original codes	Re-codification
Disability	Any disability	Any disability	Do you have any of the following long-term impairments?	0: no, 1: visual, 2: hearing, 3: speaking, 4: physical, 5: cognitive or intellectual, 6: mental or psychiatric, 9: MD	(globaldis): 1: any disability (1 to 6) 0: no disability (0, 9)
	Type of disability	Visual disability	Same as above	Same as above	(visualdis): 0: no visual disability 1: visual disability
		Hearing disability	Same as above	Same as above	(heardis): 0: no hearing disability 1: hearing disability
		Speaking disability	Same as above	Same as above	(speakdis): 0: speaking disability 1: speaking disability
		Physical disability	Same as above	Same as above	(physdis): 0: no physical disability 1: physical disability
		Learning disability	Same as above	Same as above	(cogndis): 0: no 1: learning disability
		Psychiatric disability	Same as above	Same as above	(psychdis): 0: no 1: psychiatric disability

<b>Variable Group</b>	<b>Variable subgroup</b>	<b>Variable name</b>	<b>Question asked</b>	<b>Original codes</b>	<b>Re-codification</b>
<b>Disability</b>	Number of disability	Number of disability	Same as above	Same as above	(Numberdis): 1: 1 disability 2: 2 disabilities 3: 3 disabilities
	Cause of disability	Cause of disability	For each of the disabilities reported, which was the cause of this condition?	1: birth disability, 2: disease, 3: accident, 4: other	(causedis): 1: birth disability 2: disease 3: accident 4: other
<b>Chronic care or cancer care in the last year</b>	Any care received for chronic disease or cancer in the last year	Any care received for chronic disease or cancer in the last year	During the last year, have you received any attention, ambulatory or at the hospital, for a chronic condition or cancer?	1: yes, 2: no, 3: don't know	0: no or don't know 1: yes

**Table A5.2 INDEPENDENT VARIABLES**Independent Variable 1: **Migration Status**

Variable Group	Variable name	Question asked	Original codes	Re-codification
<b>International immigrant</b>	International immigrant since birth	When you were born, where did your mother live?	1: in the same county you live now, 2: in a different county, 3: in a different country, 9: no data	(intimigrbirth): 0: 1,2,9 1: 3 (in a different country)
	Years living in Chile, continuous	In what year did you arrive to Chile?	No category	(yearschile): No category (continuous)
	Years living in Chile, categorical	Same as above	Same as above	(yearschilecat): 1: less than a year 2: 1-5 years 3: 6-10 years 4: 11-15 years 5: 16-20 years 6: 21 or more years
	Country of origin	What is your country of origin?	No category	(countrybirth_f): 1: Peru 2: Argentina 3: Bolivia 4: Ecuador, 5: Others

Independent Variable 2: **Demographic determinants of health**

<b>Variable Group</b>	<b>Variable name</b>	<b>Question asked</b>	<b>Original codes</b>	<b>Re-codification</b>
<b>Age</b>	Age continuous	What is your age?	No category	(age): No category (continuous)
	Age categories	Same as above	Same as above	(agecat): 1: under 16 2: 16-64 3: 65 or more
<b>Sex</b>	Sex	Sex	1: male, 2: female	(sex): 0: male 1: female
<b>Marital status</b>	Marital status	Which is your current marital status?	1: married, 2: cohabitant couple, 3: annulled, 4: separated, 5: divorced, 6: widow, 7: single	(maristatus): 1: single (7) 2: married or cohabitant couple (1,2) 3: annulled, separated or divorced (3,4,5) 4: widow (6)
<b>Minority Ethnic Group</b>	Any minority ethnic group	In Chile, the law recognises the existence of 9 ethnic groups; do you belong to any of them?	1: aymara, 2: rapanui, 3: quechua, 4: mapuche, 5: atacameño, 6: coya, 7: kawaskar, 8: yagan, 9: diaguita, 90: no	(ethnicity): 0: no 1: yes, to any of them
	Type of minority ethnic group	Same as above	Same as above	(ethnicity): 1: Aymara 2: Atacameño 3: Mapuche 4: others



<b>Variable Group</b>	<b>Variable name</b>	<b>Question asked</b>	<b>Original codes</b>	<b>Re-codification</b>
<b>Zone</b>	Zone	Zone where you live?	1: urban, 2: rural	(zone): 0: urban 1: rural
	Area	Region where you live?	No category	(area): 1: Northern I, II, III, IV 2: Central V, VI, VII RM 3: Southern VIII to XII
<b>Number of household members</b>	Number of household members, count variable	Number of household members?	No category	(housemem): No category
	Number of household members, categorical	Number of household members?	No category	(housememcat): 1: one member 2: 2 to 4 members 3: 5 to 7 7: 8 or more

Independent Variable 3: **Socioeconomic determinants of health**

Variable Group	Variable subgroup	Variable name	Question asked	Original codes	Re-codification
<b>Income</b>	Individual income	Individual income per month	How much did you earned last month?	No category	(indincome): Pesos chilenos (continuous) USD (continuous)
	Household income	Household income per month	How much did you earned last month? (The sum of total income earned by all active labours of the household + social benefits + pensions)	No category	(houseincome): Pesos chilenos (continuous) USD (continuous)
		Household income per capita per month*	Same as above, then divided by the total number of household members	No category	(houseincomepc): Pesos chilenos (continuous) USD (continuous)
		Household income per capita, quintiles	Same as above	No category	1: first lowest quintile 2: second quintile 3: third quintile 4: fourth quintile 5: fifth highest quintile

\* Variable created as recommended by the Chilean Ministry of Planning (MIDEPLAN, 2006)

Variable Group	Variable subgroup	Variable name	Question asked	Original codes	Re-codification
Occupation	Employment	Employment status	Last week, did you have at least one hour of formal paid work?	1:yes, 2: no	(employed_f): 0: no 1: yes
		Type of occupation (only for those with a current active work)	Which is your main occupation?	1: Chief or employer, 2: self-employed, 3: government employee, 4: Public sector employee, 5: Private Sector Employee, 6: in-door house domestic service, 7: Outdoor house domestic service, 8: Army and Order	(occupytype): 1: Head or manager 2: Self-employed 3: Public sector employee (3,4,8) 4: Private Sector Employee (5) 5: Domestic service (6,7)
		Unemployed *	Why you are not currently an active worker?	13 different categories	(unemployed): 1: Found a job, starts soon (1,2) 2: Can't find a job (14,8,9,10,11) 3: Don't want to work right now (7,12,19) 4: Has an intermittent informal job (13,18) 5: other (20)
		Inactive*	Why you are not currently an active worker?	7 different categories	(inactive): 1: Student (16) 2: Housewife (3,4,5,6) 3: Retired (17) 4: Illness (15)

\*Variable created as recommended by the Chilean Ministry of Planning (MIDEPLAN, 2006)

Variable Group	Variable subgroup	Variable name	Question asked	Original codes	Re-codification
<b>Occupation (cont.)</b>	Contractual status	Contractual status	In your current occupation, do you have a work contract?	1: yes, 2: yes but haven't signed, 3: no, 4: don't remember	(contract): 0: no (3,4) 1: yes (1,2)
		Type of contract	In your current main occupation, what is your contractual status?	1: permanent, 2: yearly renovated, 3: building or service, 4: learning, 5: transitory services	(contrtype): 1: permanent 2: temporary (2,3,4,5)
		Contractual workday dedication	According to your contract: which is your weekly work dedication is?	1: full time, 2: partial time	(jobdedic): 0: partial time 1: full time
<b>Educational level</b>	Educational level	Educational level	What is the final course and type of study you have?	1: Pre-School, 2: preparatory, 3: primary school, 4: differential school, 5: Humanidades, 6: high school, 7: technical level, 8: Technical high school, 9: Technical institute without a certificate, 10: Technical institute with a certificate, 11: Professional institute incomplete, 12: Professional institute complete, 13: University incomplete, 14: University complete, 15: University postgraduate, 16: none	(educlevel): 1: None 2: Primary or secondary school (2,3,4) 3: High school (5,6,7) 4: Technical or Professional non University education (8,9,10,11,12) 5: University (13,14,15)

Independent Variable 4: **Material determinants of health**

Variable Group	Variable name	Question asked	Original codes	Re-codification
<b>Quality of the housing</b>	Type of walls	What are the external walls of your house mostly built of?	1: steel or reinforced concrete, 2: brick or cement, 3: brick-lined, 4: adobe, 5: Partition without lining, 6: Clay, 7: Waste and Recycling, 8: Other, 9: no data	(walltype): 1: solid, high quality (1,2,3) 2: semisolid, regular (4,5,6) 3: light, poor quality (7,8)
	Type of ceiling	What is the ceiling of your house mostly built of?	1: tile, 2: zinc interior sky 3: sky without zinc interior, 4: phonolite, 5 straw or reed, 6: Waste or recycling	(ceiltype): 1: high quality (1,2) 2: regular quality 3: poor quality
	Type of floor	What is the floor of your house mostly built of?	1: Coated radio, 2: Non coated Radio, 3: table beams, 4: Wood Land, 5: ground	(floortype) 1: high quality (1,2) 2: regular quality (3,4) 3: poor quality (5)
	Quality of Household index*	Walls + ceiling + floor	Walls (original codes): 0: Acceptable: 1 1: Sub-standard (Recoverable): 2 2: Unfit (Irrecoverable): 3 Ceiling (original codes): 0: Acceptable: 1 1: Sub-standard (Recoverable): 2 2: Unfit (Irrecoverable): 3 Floor (original codes): 0: Acceptable: 1 1: Sub-standard (Recoverable): 2 2: Unfit (Irrecoverable): 3	(matindex): 0: acceptable (all acceptable)  1: sub-standard (one or more recoverable and no irrecoverable)  2: unfit (at least one irrecoverable)

\* Variable created as recommended by the Chilean Ministry of Planning (MIDEPLAN, 2006)

Variable Group	Variable name	Question asked	Original codes	Re-codification
<b>Household rooms</b>	Number of bedrooms	How many bedrooms does your house have?	No category	(numbedrooms): Number (continuous)
	Number of total rooms	How many rooms does your house have in total?	No category	(numtotalrooms): Number (continuous)
<b>Overcrowding</b>	Overcrowding rate (CASEN definition)*	Ratio between 2 variables: total number of bedrooms divided by total number persons in the house	No category	(overcrow=v16a/numper): 1: mild (ratio below 2,5) 2: moderate (2,5-4,9) 3: severe (over 4,9)
	Overcrowding rate (Townsend score) Ψ	Ratio between 2 variables: total number of rooms divided by total number persons in the house	No category	(overcrowTowns): 0: no overcrowding (less than 1 person per room) 1: overcrowding (over 1 person per room)
<b>Sanitary conditions</b>	Access to public clean water	What is the system you use to collect water for living?	1: tap water inside the house, 2: tap water outside the house, 3: no tap water	(wateraccess): 0: no access to clean water (3) 1: access to clean water (1,2)
	Access to public sewage system	The house where you live, has any type of sewage system?	1: yes, WC with sewer, 2: yes, septic tank, 3: yes, sanitary latrine connected to black hole, 4: yes, box on black hole, 5: yes, box over irrigation ditch or canal, 6: yes, box connected to another system, 7: No system	(sewageaccess): 0: no or rudimental system (2,3,4,5,6,7) 1: public system (1)
	Sanitary Index*	Clean water + sewage system	Clean water (original codes): 1: Acceptable: 1 2: Deficient: 2,3 Sewage system (original codes): 1: Acceptable: 1,2,3 2: Deficient: 4,5,6,7	(sanitindex): 0: deficient (one or more deficient) 1: acceptable (all acceptable)

\* Variables created as recommended by the Chilean Ministry of Planning (MIDEPLAN, 2006)

Ψ As recommended in the Townsend Score (1988)

## Independent Variable 5: Access to and use of the Chilean health care system

Variable Group	Variable name	Question asked	Original codes	Re-codification
Provision	Provision entitlement	What type of provision do you have?	1: public A, 2: public B, 3: public C, 4: public D, 5: public don't know which, 6: private ISAPRE, 7: none (particular), 8: other, 9: don't know	0: none 1: public free of charge (1) 2: public with some co payment (2,3,4,5) 3: private (6,7) 4: other
Use of cervical cancer prevention programme	Pap smear in the last 3 years	In the last 3 years, have you taken the Papanicolaou or Pap smear?	1: yes, 2: no, 9: don't know or don't remember	(accesspap): 0: no or don't know (2,9) 1: yes
Use of preventive care services in the last 3 months	Number of preventive care attentions received, count variable	In the last 3 months, how many health controls did you have?	No category	(accessprogram): No category
	Number of preventive care attentions received, categorical	In the last 3 months, how many health controls did you have?	No category	(accessprogramcat): 1: 1 o2 health controls 2: 3 or 4 3: 5 or 6 4: 7 or more
	Type of preventive care attentions received	What was the last type of health control you received?	1: well baby, 2: antenatal, 3: chronic disease, 4: gynaecology, 5: preventive adult control, 6: yes, other, 9: don't know or don't remember	(accessprogramtype): 0: no control or don't know 1: well baby care 2: antenatal care 3: chronic disease 4: gynaecology 5: preventive adult control, 6: other 7: don't remember

Variable Group	Variable subgroup	Variable name	Question asked	Original codes	Re-codification
Health attentions received in the last 3 months	Mental health attentions	Number of mental health attentions	How many appointments or health attentions did you receive?	No category	(mentaldisease) No category (count variable)
		Number of mental health attentions, categorical	How many appointments or health attentions did you receive?	No category	(mentaldiseasecat): 1: 1 or 2 2: 3 or 4 3: 5 or 6 4: 7 or more
	Other specialist health attentions	Number of other specialist health attentions	How many appointments or health attentions did you receive?	No category	(specialdisease) No category (count variable)
		Number of other specialist health attentions, categorical	How many appointments or health attentions did you receive?	No category	(specialdiseasecat): 1: 1 or 2 2: 3 or 4 3: 5 or 6 4: 7 or more
	Dental health attentions	Number of dental health attentions	How many appointments or health attentions did you receive?	No category	(specialdisease) No category (count variable)
		Number of dental health attentions, categorical	How many appointments or health attentions did you receive?	No category	(specialdiseasecat): 1: 1 or 2 2: 3 or 4 3: 5 or 6 4: 7 or more



**Appendix A5.2** How to measure **health inequalities** through differences by **social position**: The CASEN survey 2006

Socioeconomic position and its relation to health inequalities will be measured by three frequently used indicators: household income distribution, educational level, and type of occupation.

Variable Group	Variable name	Question asked	Measurement	Expected Findings
Socioeconomic position by household income distribution	Difference between the poorest and the richest	No question	The absolute and relative difference in health outcomes according to the 1 <sup>st</sup> lowest and the 5 <sup>th</sup> richest quintile of household distribution income	<ul style="list-style-type: none"> <li>Differences between 1<sup>st</sup> and 5<sup>th</sup> quintiles within both the immigrant and the Chilean-born population (Ratio 20/20)</li> <li>Differences when comparing the lowest quintile between groups (the IIP and the Chilean-born) and the highest quintiles between each groups</li> </ul>
Socioeconomic position by educational level	Difference between the group with the lowest educational level and the highest	No question	The absolute and relative difference in health outcomes according to the lowest (primary school) and the highest (professional) educational level	<ul style="list-style-type: none"> <li>Differences between the lowest and the highest educational level within both the immigrant and the Chilean-born population (Ratio 20/20)</li> <li>Differences when comparing the lowest educational level between groups (the IIP and the Chilean-born) and the highest educational level between each groups</li> </ul>
Socioeconomic position by type of occupation	Difference between the group with the lowest and the highest type of occupation	No question	The absolute and relative difference in health outcomes according to the lowest (domestic service and construction) and the highest (chief or employer) type of occupation	<ul style="list-style-type: none"> <li>Differences between the lowest and the highest type of occupation within both the immigrant and the Chilean population (Ratio 20/20)</li> <li>Differences when comparing the lowest type of occupation between groups (the IIP and the Chilean-born) and the highest type of occupation between each groups</li> </ul>

## **APPENDIX 6**

### **TABLES FROM CHAPTER 6**

**Table A6.1 Demographic** determinants of health in the total Chilean population and the International Immigrant Population (IIP) in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born Population		International immigrants	
	% or mean	95% CI	% or mean	95% CI
Sex (male) <sup>b</sup>	48.66	48.40-48.94	45.21	41.74-48.72
Mean age	X=32.97	32.81-33.12	X=33.41	31.81-35.00
Age categories: <sup>a</sup>				
<16 <sup>c</sup>	25.27	24.98-25.55	13.60	11.29-16.28
16-65 <sup>c</sup>	66.41	66.12-66.70	79.08	75.92-81.93
Over 65	8.32	8.13-8.52	7.32	5.33-9.97
Marital status: <sup>a</sup>				
Single <sup>b</sup>	50.57	50.31-50.84	45.81	42.06-49.62
Married or cohabitant couple <sup>b</sup>	40.76	40.46-41.06	45.49	41.66-49.36
Annulled, separated or divorced	4.56	4.42-4.71	4.21	3.06-5.77
Widow	4.07	3.95-4.19	4.49	2.89-6.91
Minority ethnic group: any	6.55	6.52-6.80	5.57	3.79-8.10
Type of minority ethnic group: <sup>a</sup>				
Aymara <sup>b</sup>	0.52	0.44-0.61	2.33	1.48-3.63
Atacameño	0.18	0.14-0.24	0.20	0.0044-0.93
Mapuche <sup>b</sup>	5.71	5.48-5.95	2.96	1.59-5.46
Others	0.14	0.10-0.20	0.0078	0.0011-0.55

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either the Chilean-born or the IIP

<sup>b</sup> p<0.05 when comparing the same category across populations, the Chilean-born population versus the international immigrant population

Dimensions	Chilean-born Population		International immigrants	
	%	95% CI	%	95% CI
Zone: <sup>a</sup>				
Urban <sup>b</sup>	87.14	87.01-87.27	93.97	92.58-95.11
Rural	12.86	12.59-13.14	6.03	4.89-7.42
Area: <sup>a</sup>				
Northern	11.80	11.58-12.03	13.15	10.14-16.89
Central <sup>b</sup>	62.06	61.76-62.36	73.66	69.22-77.66
Southern <sup>b</sup>	26.14	25.90-26.37	13.19	10.50-16.45
Mean number of households members:	4.52	4.49-4.55	3.96	3.80-4.12
Number of household members: <sup>a</sup>				
One member <sup>b</sup>	2.36	2.26-2.46	5.03	3.34-7.52
2 to 4 members <sup>b</sup>	52.73	52.02-53.43	58.35	53.22-63.31
5 to 7 members	38.49	37.78-39.20	35.16	30.38-40.26
8 or more members <sup>b</sup>	6.42	5.99-6.88	1.46	0.79-2.67

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either the Chilean-born or the IIP

<sup>b</sup> p<0.05 when comparing the same category across populations, the Chilean-born population versus the international immigrant population

**Table A6.2** Stratifying different demographic determinants of health by years living in the country among the IIP, CASEN survey 2006 (weighted sample size 154 431)

<b>Dimensions</b>	<b>&lt;1 year</b> %(95%CI)	<b>1-5 years</b> %(95%CI)	<b>6-10 years</b> %(95%CI)	<b>11-15 years</b> %(95%CI)	<b>16-20 years</b> %(95%CI)	<b>&gt;20 years</b> %(95%CI)
Sex Male <sup>b</sup>	43.22 (35.91-50.84)	45.91 (39.10-52.87)	43.47 (37.22-49.93)	44.51 (33.56-56.19)	46.52 (34.76-58.67)	49.70 (40.52-58.91)
Female	56.78 (49.16-64.09)	54.09 (47.13-60.90)	56.33 (50.07-62.78)	55.41 (43.81-66.44)	53.48 (41.33-65.24)	50.30 (41.09-59.48)
Age categories: <sup>a</sup>						
<16 <sup>c</sup>	14.56 (10.32-20.15)	26.72 (20.54-33.97)	18.92 (13.72-25.51)	8.83 (4.18-17.68)	0.18 (0.02-1.32)	0
16-65 <sup>c</sup>	78.46 (71.67-83.98)	72.06 (64.72-78.38)	80.70 (74.15-85.90)	89.34 (80.15-94.56)	94.96 (85.45-98.37)	72.36 (64.33-80.64)
Over 65 <sup>c</sup>	6.98 (3.27-14.27)	1.22 (0.19-7.55)	0.38 (0.05-2.46)	1.83 (0.37-8.68)	4.86 (1.50-14.58)	26.74 (19.36-35.67)
Zone Urban <sup>a</sup>	94.15 (91.53-95.99)	94.50 (90.28-96.56)	93.35 (88.25-96.32)	95.03 (91.26-97.22)	95.53 (92.07-97.52)	92.52 (89.78-94.57)
Rural	5.85 (4.01-8.47)	5.50 (3.05-9.72)	6.65 (3.68-11.75)	4.97(2.78-8.74)	4.47 (2.48-7.93)	7.48 (5.43-10.22)
Area: <sup>a</sup>						
Northern	10.64 (6.06-18.00)	13.63 (6.71-25.73)	14.86 (9.32-22.86)	11.69 (5.75-22.33)	10.64 (4.68-22.42)	17.92 (11.75-26.36)
Central	82.57 (75.26-88.06)	72.91 (60.97-82.26)	66.02 (54.97-75.57)	67.43 (50.05-81.05)	76.22 (64.36-85.05)	67.36 (58.19-75.37)
Southern	6.79 (4.53-10.08)	13.46 (7.83-22.16)	19.12 (11.16-30.81)	20.88 (9.98-38.57)	13.14 (7.82-21.24)	14.72 (9.79-21.53)
Marital status: <sup>a</sup>						
Single <sup>c</sup>	51.14 (44.02-58.21)	51.49 (43.88-59.03)	44.75 (36.24-53.58)	61.92 (49.68-72.81)	55.30 (41.68-68.18)	16.82 (9.77-27.42)
Married	39.07 (32.00-46.67)	43.83 (35.95-52.03)	52.44 (43.88-60.86)	30.38 (20.91-41.86)	42.76 (29.97-56.61)	61.60 (51.71-72.62)
Divorced	2.88 (1.42-5.73)	3.52 (1.59-7.61)	2.79 (1.34-5.70)	7.70 (2.98-18.48)	1.65 (0.38-6.94)	8.76 (4.94-15.05)
Widow <sup>c</sup>	6.91 (3.23-14.18)	1.16 (0.16-7.82)	0.01 (0.004-0.07)	0	0.28 (0.08-0.92)	12.82 (8.32-19.23)
Minority ethnic group: any	4.08 (1.67-9.63)	3.41 (1.72-6.66)	7.71 (4.31-13.41)	8.55 (3.06-21.67)	2.59 (1.16-5.70)	8.74 (4.81-15.35)
Type of minor. ethnic group:						
Aymara	2.00 (0.68-5.72)	1.55 (0.72-3.34)	2.42 (1.04-5.56)	2.53 (1.02-6.13)	1.18 (0.38-3.61)	4.29 (1.73-10.25)
Atacameño	0.01 (0.005-0.07)	0.06 (0.01-0.32)	0	0	0	1.18 (0.23-5.96)
Mapuche	2.07 (0.50-8.21)	1.79 (0.60-5.18)	5.29 (1.04-5.56)	6.02 (1.49-21.33)	1.41 (0.47-4.12)	2.77 (1.01-7.39)
Others	0	0	0	0	0	0.49 (0.06-3.43)

<sup>a</sup> p<0.0001 when comparing categories within the same variable<sup>b</sup> p<0.05 when comparing categories within the same variable<sup>c</sup> p<0.0001 when comparing categories between different periods of time

**Table A6.3** Stratifying different demographic determinants of health by *country of origin* among the IIP (weighted sample size 154 431)

<b>Dimensions</b>	<b>Peru</b> %(95%CI)	<b>Argentina</b> %(95%CI)	<b>Bolivia</b> %(95%CI)	<b>Ecuador</b> %(95%CI)
Sex Male <sup>a</sup>	39.73 (33.76-46.02)	36.46 (30.65-42.68)	40.86 (29.31-53.52)	47.85 (34.34-61.69)
Female	60.27 (53.98-66.24)	63.54 (57.32-69.35)	59.14 (46.48-70.69)	52.15 (38.31-65.66)
Age categories: <sup>a</sup>				
<16	12.04 (7.94-17.84)	14.57 (10.80-19.39)	7.78 (3.50-16.40)	24.62 (12.97-41.72)
16-65	86.45 (80.73-90.67)	78.86 (73.60-83.30)	89.20 (80.55-94.28)	75.31 (58.25-86.96)
Over 65 <sup>b</sup>	1.51 (0.58-3.86)	6.57 (4.04-10.50)	3.02 (1.41-6.34)	0.06 (0.007-0.55)
Zone Urban <sup>a,b</sup>	98.79 (97.90-99.30)	91.18 (88.45-93.32)	85.14 (76.53-90.96)	97.37 (88.09-99.46)
Rural <sup>b</sup>	1.21 (0.70-2.10)	8.82 (6.68-11.55)	14.86 (9.04-23.47)	2.63 (0.54-11.91)
Area: <sup>a</sup>				
Northern <sup>b</sup>	13.67 (8.02-22.33)	4.70 (2.67-8.14)	83.55 (68.04-92.37)	28.21 (10.42-57.02)
Central <sup>b</sup>	85.07 (76.51-90.88)	61.87 (53.52-69.58)	15.34 (6.84-31.01)	54.19 (29.74-76.77)
Southern <sup>b</sup>	1.26 (0.53-2.98)	33.43 (25.99-41.80)	1.11 (0.31-3.94)	17.60 (5.57-43.63)
Marital status: <sup>a</sup>				
Single	41.60 (34.73-48.80)	49.94 (42.09-57.79)	40.73 (30.20-52.18)	48.76 (35.27-62.44)
Married	52.12 (45.07-59.08)	43.29 (35.94-50.95)	48.69 (35.62-61.94)	35.87 (21.63-53.07)
Divorced <sup>b</sup>	5.77 (3.47-9.46)	2.89 (1.42-5.80)	2.98 (0.77-10.77)	14.68 (6.48-29.93)
Widow <sup>b</sup>	0.51 (0.12-2.11)	3.88 (2.16-6.87)	7.60 (2.90-18.47)	0.72 (0.08-5.68)
Minority ethnic group: any <sup>b</sup>	2.00 (0.19-2.81)	5.80 (3.54-9.35)	54.01 (35.05-71.87)	6.16 (0.77-35.84)
Type of minority ethnic group: <sup>a</sup>				
Aymara <sup>b</sup>	1.26 (0.47-3.38)	0.02 (0.003-0.20)	33.87 (19.67-51.72)	0
Atacameño <sup>b</sup>	0	0.68 (0.12-3.84)	0.40 (0.11-1.42)	0
Mapuche <sup>b</sup>	0.74 (0.19-2.81)	4.79 (2.83-7.99)	19.74 (5.39-51.48)	6.16 (0.77-35.84)
Others	0	0.30 (0.04-2.11)	0	0
Years living in the country (cont.) <sup>b</sup>	X= 4.73 (3.68-5.78)	X= 16.45 (14.18-18.71)	X=12.47 (7.31-17.63)	6.24 (4.30-8.18)

<sup>a</sup>p<0.0001 when comparing categories within a same dimension<sup>b</sup>p<0.0001 when comparing categories between different countries

**Table A6.4** Stratifying different demographic determinants of health by *age groups* among the IIP, CASEN survey 2006 (weighted sample size 154 431)

Dimensions	Under 16 years old		16 to 65 years old		Over 65 years old	
	%	95% CI	%	95% CI	%	95%CI
Sex Male	52.92	44.98-60.72	43.04	39.34-46.83	53.74	37.73-69.01
Female	47.08	39.28-55.02	56.96	53.17-60.66	46.26	30.99-62.27
Zone Urban	91.02	86.16-94.29	94.77	93.53-95.78	91.15	86.01-94.52
Rural	8.98	5.71-13.84	5.23	4.22-6.47	8.85	5.48-13.99
Area:						
Northern	12.92	7.07-22.44	13.29	10.16-17.19	12.37	5.75-24.60
Central	66.99	56.44-76.07	74.91	70.44-78.90	73.91	59.29-84.64
Southern	20.09	13.39-29.00	11.81	9.34-14.84	13.73	6.58-26.43
Marital status:						
Single <sup>a</sup>	100	-	39.96	35.55-44.53	8.33	3.16-20.21
Married	-	-	53.25	48.73-57.72	46.42	31.69-61.80
Divorced	-	-	5.19	3.74-7.15	1.17	0.25-5.25
Widow <sup>a</sup>	-	-	1.60	0.90-2.81	44.08	28.58-60.82
Minority ethnic group: any	4.59	2.34-8.81	6.01	3.91-9.14	2.52	1.08-5.73
Type of minority ethnic group:						
Aymara	0.99	0.43-2.24	2.66	1.63-4.31	1.29	0.59-2.78
Atacameño	0.01	0.002-0.14	0.24	0.04-1.23	0.16	0.04-0.54
Mapuche	3.58	1.56-7.96	3.01	1.44-6.22	1.07	0.20-5.42
Others	-	-	0.09	0.01-0.70	-	-

<sup>a</sup> p<0.0001 when comparing age groups

**Table A6.5** Stratifying different demographic determinants of health by *age groups* among the among the Chilean-born population, CASEN survey 2006 (weighted sample size 16 130 743)

Dimensions	Under 16 years old		16 to 65 years old		Over 65 years old	
	Mean	95% CI	Mean	95% CI	Mean	95% CI
Sex Male <sup>a b</sup>	51.34	50.67-52.01	48.38	48.10-48.66	43.11	42.23-43.93
Female <sup>a b</sup>	48.66	47.99-49.33	51.62	51.34-51.90	56.89	56.07-57.70
Zone Urban <sup>a b</sup>	87.13	86.75-87.51	87.50	87.21-87.77	83.55	82.94-84.15
Rural <sup>a b</sup>	12.87	12.49-13.25	12.50	12.23-12.79	16.45	15.85-17.06
Area:						
Northern	12.35	11.71-13.02	11.70	11.22-12.18	10.84	10.05-11.69
Central <sup>b</sup>	61.44	60.57-62.33	62.32	61.65-62.98	60.55	59.38-61.70
Southern <sup>b</sup>	26.21	25.50-26.94	25.99	25.44-26.54	28.61	27.63-29.61
Marital status:						
Single	99.95	99.90-99.98	36.99	36.60-37.39	8.78	8.16-9.43
Married	0.04	0.02-0.10	54.76	53.32-55.21	52.84	51.64-54.02
Divorced	-	-	6.18	5.97-6.40	5.64	5.13-6.14
Widow	-	-	2.02	1.91-2.13	32.70	31.66-33.73
Minority ethnic group: any	8.04	7.60-8.49	6.20	5.94-6.48	4.96	4.54-5.41
Type of minority ethnic group:						
Aymara <sup>b</sup>	0.63	0.49-0.81	0.46	0.38-0.55	0.44	0.30-0.66
Atacameño	0.19	0.12-0.28	0.19	0.14-0.25	0.15	0.08-0.26
Mapuche	7.09	6.69-7.51	5.46	5.22-5.72	4.29	3.91-4.69
Others	0.14	0.09-0.20	0.09	0.07-0.13	0.07	0.03-0.17

<sup>a</sup> p<0.0001 compared to any other age group in the Chilean-born population

<sup>b</sup> p<0.0001 compared to the same age group in the international immigrant population (Table A6.4)



**Table A6.6** Stratifying different demographic determinants of health by *gender*, a comparison between the IIP and the Chilean-born population, CASEN survey 2006 (weighted sample size 154 431 and 16 130 743, respectively)

Dimensions	International immigrant population				Chilean-born population			
	Men		Women		Men		Women	
	%	95% CI	Mean	95% CI	%	95%CI	%	95%CI
Age categories:								
<16 <sup>a b</sup>	15.93	12.63-19.90	11.68	9.13-14.82	26.76	26.34-27.17	24.07	23.70-24.45
16-65 <sup>a b</sup>	75.35	70.60-79.55	82.14	78.17-85.52	65.87	65.45-66.28	66.69	66.30-67.80
Over 65 <sup>b</sup>	8.72	5.89-12.74	6.18	3.78-9.97	7.38	7.16-7.60	9.24	8.99-9.49
Zone (rural) <sup>a b</sup>	6.26	4.90-7.98	5.79	4.50-7.42	13.44	13.15-13.75	12.43	12.15-12.72
Area:								
Northern	11.58	8.38-15.80	14.48	10.67-19.35	11.95	11.45-12.47	11.64	11.16-12.13
Central <sup>a b</sup>	74.68	69.22-79.45	73.00	67.71-77.71	61.82	61.12-62.52	62.07	61.39-62.75
Southern <sup>a b</sup>	13.74	10.23-18.21	12.52	9.82-15.84	26.23	25.67-26.80	26.29	25.74-26.86
Marital status:								
Single <sup>a b</sup>	46.62	41.21-52.10	45.14	40.57-49.79	53.37	53.00-53.74	48.01	47.64-48.38
Married <sup>a b</sup>	48.05	42.74-53.39	43.42	38.68-48.29	41.73	41.38-42.09	39.75	39.38-40.13
Divorced <sup>a</sup>	2.06	1.02-4.14	5.94	4.23-8.29	3.16	2.99-3.33	5.90	5.68-6.13
Widow <sup>a</sup>	3.28	1.61-6.56	5.50	3.18-9.35	1.69	1.59-1.81	6.31	6.10-6.52
Minority ethnic group: any	5.29	3.40-8.14	5.79	3.68-8.99	6.57	6.28-6.88	6.56	6.26-6.87
Type of minority ethnic group:								
Aymara <sup>a b</sup>	2.03	0.02-0.40	2.58	1.48-4.46	0.54	0.43-0.66	0.46	0.38-0.57
Atacameño	0.07	0.02-0.20	0.31	0.05-1.89	0.18	0.13-0.25	0.18	0.13-0.25
Mapuche	3.18	1.66-6.03	2.75	1.27-5.86	5.75	5.48-6.03	5.81	5.53-6.10
Others	-	-	0.14	0.02-1.01	0.10	0.07-0.15	0.11	0.07-0.14

<sup>a</sup> p<0.0001 compared to any other age group in the same population<sup>b</sup> p<0.0001 compared to the same age group in the international immigrant population

**Table A6.7** Stratifying different demographic determinants of health by *marital statuses*, a comparison between the IIP and the Chilean-born population, CASEN survey 2006 (weighted sample size 154 431 and 16 130 743, respectively)

Dimensions	International immigrant population				Chilean-born population			
	Single		Married		Single		Married	
	%	95% CI	%	95% CI	%	95%CI	%	95%CI
Age categories:								
<16 <sup>a</sup>	29.69	24.68-35.24	0	-	50.11	49.57-50.65	0.02	0.01-0.06
16-65 <sup>a</sup>	68.98	63.38-74.07	92.52	89.35-94.81	48.44	47.91-48.98	89.16	88.78-89.53
Over 65	1.33	0.51-3.42	7.48	5.19-10.65	1.44	1.34-1.56	10.81	10.44-11.19
Zone (rural) <sup>a</sup>	5.32	3.96-7.10	6.71	5.30-8.46	12.83	12.52-13.15	13.66	13.35-13.98
Area:								
Northern	9.98	6.32-15.41	15.23	11.65-19.68	12.03	11.51-12.57	11.50	11.00-12.02
Central <sup>a</sup>	74.15	67.48-79.85	74.24	69.23-78.68	61.45	60.72-62.18	62.29	61.58-62.99
Southern <sup>a</sup>	15.88	11.51-21.50	10.53	8.03-13.69	26.52	25.93-27.12	26.22	25.64-26.80
Minority ethnic group: any	5.82	3.49-9.56	4.85	3.14-7.42	7.35	7.00-7.70	5.92	5.66-6.19
Type of minority ethnic group:								
Aymara <sup>a</sup>	1.61	0.81-3.17	2.58	1.66-3.99	0.58	0.47-0.71	0.40	0.32-0.48
Atacameño <sup>a</sup>	0.02	0.007-0.07	0.05	0.01-0.19	0.20	0.14-0.27	0.15	0.11-0.21
Mapuche <sup>a</sup>	4.02	2.03-7.81	2.21	0.99-4.87	6.44	6.13-6.77	5.29	5.05-5.54
Others	0.17	0.02-1.21	0	-	0.13	0.08-0.18	0.08	0.06-0.11

<sup>a</sup> p<0.0001 when comparing the same category across populations

Dimensions	International immigrant population				Chilean-born population			
	Divorced		Widow		Divorced		Widow	
	%	95% CI	%	95% CI	%	95%CI	%	95%CI
Age categories:								
<16	0	-	0	-	0	-	0	-
16-65 <sup>a</sup>	97.94	90.98-99.56	28.12	14.44-47.55	89.75	88.84-90.60	32.95	31.52-34.41
Over 65 <sup>a</sup>	2.06	0.44-9.02	71.88	52.45-85.56	10.25	9.40-11.16	67.05	65.59-68.48
Zone (rural) <sup>a</sup>	5.70	2.32-13.33	6.14	3.19-11.47	7.12	6.68-7.58	13.26	12.64-13.91
Area:								
Northern	21.22	10.61-37.94	17.30	6.94-36.99	12.44	11.32-13.65	11.10	10.11-12.17
Central	70.20	53.72-82.69	68.27	47.85-83.57	66.15	64.60-67.67	59.89	58.40-61.35
Southern <sup>a</sup>	8.58	3.39-20.04	14.43	6.50-29.03	21.41	20.24-22.62	29.02	27.77-30.30
Minority ethnic group: any	3.00	0.99-8.74	12.53	4.58-29.94	4.87	4.24-5.58	5.23	4.67-5.85
Type of minority ethnic group:								
Aymara <sup>a</sup>	1.33	0.57-3.06	8.18	2.38-24.59	0.52	0.33-0.80	0.49	0.31-0.78
Atacameño <sup>a</sup>	0	-	3.69	0.54-21.38	0.38	0.22-0.66	0.12	0.04-0.31
Mapuche <sup>a</sup>	1.67	0.26-9.89	0.66	0.15-2.89	3.91	3.36-4.56	4.54	4.04-6.51
Others	0	-	0	-	0.05	0.02-0.16	0.07	0.03-0.20

<sup>a</sup> p<0.0001 when comparing the same category across populations

**Table A6.8** Stratifying *belonging to any ethnic minority group* by different demographic determinants of health, a comparison between the IIP and the Chilean-born population, CASEN survey 2006 (weighted sample size 154 431 and 16 130 743, respectively)

Dimensions	International immigrant population with an ethnic background		Chilean-born Population with an ethnic background	
	%	95% CI	%	95% CI
Sex (male)	42.93	32.14-54.44	48.75	47.69-49.82
Age categories:				
<16 <sup>a</sup>	11.21	5.56-21.31	31.08	30.04-32.14
16-65 <sup>a</sup>	85.47	75.08-91.99	62.63	61.59-63.65
Over 65 <sup>a</sup>	3.32	1.43-7.49	6.29	5.77-6.86
Zone (rural)	27.01	17.04-40.01	30.65	29.12-32.23
Area:				
Northern <sup>a</sup>	64.81	47.03-79.30	12.66	11.15-14.34
Central <sup>a</sup>	12.10	4.27-29.80	33.09	30.92-35.34
Southern <sup>a</sup>	23.06	12.92-37.69	54.25	52.07-56.41
Marital status:				
Single	47.95	36.71-59.40	56.65	55.68-57.61
Married or cohabitant couple	39.66	28.43-52.09	36.72	35.65-37.75
Divorced	2.26	0.75-6.59	3.39	2.96-3.87
Widow <sup>a</sup>	10.13	4.11-22.89	3.24	2.90-3.61
Type of minority ethnic group:				
Aymara <sup>a</sup>	41.93	25.57-60.28	7.60	6.40-9.00
Atacameño	3.66	0.77-15.70	2.78	2.11-3.66
Mapuche <sup>a</sup>	53.02	34.44-70.79	88.03	86.43-89.47
Others	1.40	0.19-9.59	1.59	1.19-2.12

<sup>a</sup> p<0.0001 when comparing the same category across populations

**APPENDIX 7**

**TABLES AND ADDITIONAL METHODOLOGICAL INFORMATION  
FROM CHAPTER 7**

## APPENDIX 7.1 TABLES FROM CHAPTER 7

**Table A7.1** Classic **socioeconomic** determinants of health of the Chilean-born population and the IIP in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born Population		International immigrant population	
	% or mean	95% CI	% or mean	95% CI
<b>EDUCATION</b>				
Educational level: <sup>a</sup>				
No education <sup>b</sup>	7.39	7.23-7.55	2.38	1.51-3.73
Primary School <sup>b</sup>	34.68	34.33-35.03	18.79	16.05-21.88
High School	29.68	29.34-30.03	33.02	29.39-36.87
Technical level	14.51	14.24-14.79	16.81	14.13-19.88
University level <sup>b</sup>	9.86	9.57-10.15	27.32	23.16-31.98
<b>INDIVIDUAL INCOME</b>				
Mean individual income per month (Chilean pesos) <sup>b</sup>	X= 342 605	334 744- 350 465	X= 618 620	512 261- 724 978
Mean individual income per month (USD) <sup>* b</sup>	X= 646.42	631.59- 661.25	X= 1 167.20	966.53- 1367.88
Median individual income per month (Chilean pesos) <sup>b</sup>	p50= 197 600	-	p50= 247 000	-

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either the Chilean-born or the IIP

<sup>b</sup> p<0.0001 when comparing the same category across populations

Dimensions	Chilean-born Population		International immigrant population	
	% or mean	95% CI	% or mean	95% CI
<b>HOUSEHOLD INCOME</b>				
Mean household income per month (Chilean pesos) <sup>c</sup>	X= 706 690	690 243- 723 290	X= 1 228 662	1 064 359- 1 392 964
Mean household income per month (USD) <sup>*c</sup>	X= 1333.73	1302.34-1364.69	X= 2318.23	2008.24-2628.23
Median household income per month (Chilean) <sup>c</sup>	p50=437 880	-	p50= 644 088	-
Mean household income <i>per capita</i> per month (Chilean pesos) <sup>c</sup>	X= 143 341	139 747- 146 935	X=395 750	323 820- 467 679
Mean household income <i>per capita</i> per month (USD) <sup>*c</sup>	X= 270.45	263.67- 277.23	X= 746.69	610.98- 882.41
Median household income per capita per month (Chilean) <sup>c</sup>	p50= 102 316	-	p50= 168 124	-
Total Household income, per capita: <sup>a</sup>				
Quintile 1 (poorest)	31 047	30 681-31 413	30 094	26 934-33 255
Quintile 2	57 233	57005-57 462	58 316	56 452- 60 179
Quintile 3	84 389	84 109-84 669	86 190	83 640-88 740
Quintile 4	128 913	128 358-129 469	130 051	126 274-133829
Quintile 5 (wealthiest) <sup>c</sup>	412 859	401 361-424 357	691 969	567 198 -816 749

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either the Chilean-born or the IIP

<sup>b</sup> p<0.05 when comparing the Chilean-born population with the international immigrants

<sup>c</sup> p<0.0001 when comparing the Chilean-born population with the international immigrant population

Dimensions	Chilean-born Population		International immigrants	
	%	95% CI	%	95% CI
<b>OCCUPATION</b>				
Current active worker (yes)	57.16	56.84-57.48	60.96	57.06-64.73
Type of occupation: <sup>a</sup>				
Head/ manager <sup>b</sup>	3.10	2.89-3.32	5.23	3.27-8.26
Self employed	20.55	20.05-21.03	17.50	14.02-21.64
Employee public system	9.76	9.42-10.11	6.35	4.04-9.85
Employee private system <sup>c</sup>	60.94	60.36-61.51	54.27	49.10-59.35
Employee domestic service <sup>c</sup>	5.65	5.42-5.90	16.65	13.40-20.50
Unemployed: <sup>a</sup>				
Can't find a job <sup>c</sup>	2.16	2.01-2.32	0.83	0.41-1.69
Found a job and starts soon	0.64	0.56-0.72	1.01	0.38-2.62
Doesn't want to work	5.60	5.34-5.87	8.81	5.36-14.12
Has an intermittent informal job	0.89	0.80-0.98	0.78	0.23-2.58
Other reason, not stated <sup>c</sup>	5.30	5.05-5.56	10.25	6.54-15.70
Inactive: <sup>a</sup>				
Student <sup>b</sup>	38.07	37.53-38.60	44.30	37.45-51.36
Housewife <sup>c</sup>	24.1	23.69-24.51	21.02	16.36-26.59
Retired <sup>b</sup>	16.20	15.81-16.59	11.25	7.37-16.79
Ill <sup>c</sup>	7.05	6.80-7.32	1.76	0.91-3.37
Contractual status (doesn't have a contract) <sup>c</sup>	21.07	20.53-21.62	19.76	15.86-24.35
Type of contract: <sup>a</sup>				
Permanent	66.71	66.07-67.33	70.09	64.28-75.31
Temporary	33.29	32.67-33.93	29.91	24.69-35.72
Contractual workday dedication: <sup>a</sup>				
Part time	12.15	11.70-12.60	10.92	7.95-14.83
Full time	87.85	87.40-88.30	89.08	85.17-92.05

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.05 when comparing the Chilean-born population with the IIP

<sup>c</sup> p<0.0001 when comparing the Chilean-born population with the IIP



**Table A7.2 Socio-demographic** determinants of health by different socioeconomic clusters among the IIP in Chile, CASEN survey 2006 (weighted sample size 154 431)

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	%	95% CI	%	95% CI	%	95% CI
Sex (male) <sup>b</sup>	36.85	28.37-46.22	43.81	39.25-48.48	48.52	42.47-54.61
Mean age	26.69	22.74-30.64	33.12	30.72-35.51	35.21	32.89-37.53
Age categories: <sup>a</sup>						
<=15 <sup>a</sup>	33.14	23.78-44.05	21.32	17.27-26.02	0.89	0.33-2.37
16-65 <sup>a</sup>	60.81	50.34-70.37	69.45	64.11-74.32	93.76	89.80-96.25
Over 65	6.05	2.71-12.95	9.22	6.07-13.78	5.34	3.00-9.35
Marital status: <sup>a</sup>						
Single	53.13	42.54-63.45	47.98	42.73-53.26	42.05	35.73-48.65
Married or cohabitant couple	39.01	29.51-49.42	41.70	36.60-46.98	51.10	44.69-58.07
Annulled, separated or divorced	3.18	1.52-6.27	4.36	2.79-6.78	4.31	2.62-7.00
Widow	4.68	1.84-11.42	5.97	3.41-10.23	2.53	0.87-12.43
Minority ethnic group: any <sup>c</sup>	7.91	5.06-12.17	7.75	4.52-12.92	2.79	1.40-4.47
Type of minority ethnic group: <sup>a</sup>						
Aymara	4.76	2.93-7.65	2.98	1.03-5.36	1.07	0.28-3.97
Atacameño	-	-	0.46	0.09-2.11	-	-
Mapuche	3.14	1.44-6.72	4.14	1.66-9.94	1.71	0.81-3.58
Others	-	-	0.18	0.02-1.25	-	-

<sup>a</sup>p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup>p<0.05 when comparing categories within the same variable for the immigrant population

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	%	95% CI	%	95% CI	%	95% CI
Zone: <sup>a</sup>						
Urban <sup>b</sup>	88.43	83.83-91.85	93.20	90.97-94.10	96.20	94.71-97.29
Rural <sup>b</sup>	11.57	8.15-16.17	6.80	5.09-9.03	3.80	2.71-5.29
Area: <sup>a</sup>						
Northern <sup>a</sup>	25.64	16.00-38.43	15.39	10.83-21.42	7.81	5.08-11.81
Central <sup>a</sup>	51.88	40.00-63.56	72.62	66.35-71.18	80.70	75.25-85.02
Southern <sup>b</sup>	22.48	15.13-32.04	11.99	8.86-16.03	11.59	8.41-15.77
Mean number of households members: <sup>a</sup>	4.81	4.44-5.17	4.12	3.93-4.31	3.56	3.33-3.80
Number of household members: <sup>a</sup>						
One member <sup>a</sup>	0.36	0.12-1.10	4.32	2.62-7.04	7.00	3.87-12.33
2 to 4 members	48.73	36.95-60.64	55.30	48.53-61.88	64.28	56.93-71.01
5 to 7 members <sup>b</sup>	46.31	34.80-58.23	38.59	32.11-45.50	28.44	22.44-35.22
8 or more members <sup>a</sup>	4.61	1.71-11.82	1.79	0.73-4.31	0.28	0.08-0.88
Years living in the country:						
Less than a year	34.85	23.81-47.40	30.09	24.67-36.13	33.49	26.13-41.76
1 to 5 years	22.40	14.18-33.52	22.10	17.16-27.98	13.72	9.52-19.39
6 to 10 years	21.52	13.72-32.11	17.75	14.08-22.03	16.48	12.07-22.09
11 to 15 years	7.83	4.16-14.24	6.85	4.26-10.84	8.81	5.45-13.19
16 to 20 years	3.75	1.36-9.90	6.83	4.50-10.23	10.83	7.42-15.55
21 or more years	9.84	5.91-15.92	16.38	12.59-20.88	16.67	12.28-22.24

<sup>a</sup>p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup>p<0.05 when comparing categories within the same variable for the immigrant population

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	%	95% CI	%	95% CI	%	95% CI
Country of origin:						
Peru	27.92	17.49-41.43	34.16	27.96-40.95	21.18	15.95-27.81
Argentina <sup>b</sup>	39.04	28.64-50.53	25.82	21.07-31.22	22.74	17.43-29.10
Bolivia	10.11	5.68-17.37	7.22	4.06-12.50	3.38	1.71-6.59
Ecuador	6.17	2.01-17.47	4.92	2.57-9.21	4.77	2.72-8.23

<sup>a</sup>p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup>p<0.05 when comparing categories within the same variable for the immigrant population

**Table A7.3** Classic **socioeconomic** determinants of health by different socioeconomic clusters among the IIP in Chile, CASEN survey 2006 (weighted sample size 154 431)

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	% or mean	95% CI	% or mean	95% CI	% or mean	95% CI
<b>EDUCATION</b>						
Educational level:						
No education	5.58	2.63-11.45	3.93	2.25-6.80	-	-
Primary School <sup>a</sup>	42.68	33.92-51.93	2.66	1.44-4.87	-	-
High School <sup>a</sup>	47.63	37.95-51.93	31.27	26.40-36.97	-	-
Technical level <sup>a</sup>	-	-	62.14	56.95-67.42	38.06	31.80-44.75
University level <sup>a</sup>	-	-	-	-	61.94	55.22-68.20
<b>INDIVIDUAL INCOME</b>						
Mean individual income per month (Chilean pesos) <sup>a</sup>	124 151	108 740-139 563	283 766	234 187-333 346	941 506	759 525-1123487
Mean individual income per month (USD) <sup>*a</sup>	234,24	205,16-263,32	535,40	441,86-628,95	1776,42	1433,06-2119,78

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup> p<0.05 when comparing categories within the same variable for the immigrant population

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	% or mean	95% CI	% or mean	95% CI	% or mean	95% CI
<b>HOUSEHOLD INCOME</b>						
Mean household income per month (Chilean pesos) <sup>a</sup>	200 321	172 872-227 771	1 059 681	904 399-1 214 963	1 668 858	1 370 026-1 967 691
Mean household income per month (USD) <sup>* a</sup>	377,96	326,17-429,75	1999,39	1706,41-2292,38	3148,78	2584,95-3712,62
Mean household income <i>per capita</i> per month (Chilean pesos) <sup>a</sup>	40 770	36 648-44 892	304 358	209 860-398 856	581 556	461 143-701 969
Mean household income <i>per capita</i> per month(USD) <sup>* a</sup>	76,92	69,14-84,70	574,26	395,96-752,55	1097,27	870,08- 1324,46
Total Household income, per capita:						
Quintile 1 (poorest) <sup>a</sup>	26 622	25 769-33 476	-	-	30 792	26 654-34 930
Quintile 2	56 899	55 460- 58 338	57 802	54 490-61 113	59 965	56 645- 63 285
Quintile 3	-	-	85 883	82 971-88 795	87 498	83 408-91 587
Quintile 4	-	-	129 218	124 847-133 588	132 240	126 959-137 521
Quintile 5 (wealthiest)	-	-	515 656	326 654-704 657	822 593	667 650-977 536
<b>OCCUPATION</b>						
Current active worker (yes) <sup>a</sup>	42.70	33.51-52.43	64.41	59.27-69.25	62.66	56.01-68.86
Type of occupation:						
Head/ manager <sup>a</sup>	-	-	2.62	1.01-6.61	7.83	4.58-13.07
Self employed	13.70	6.95-25.23	18.67	13.68-24.26	16.09	12.09-23.12
Employee public system <sup>a</sup>	1.08	0.29-3.90	2.21	0.95-5.04	10.21	6.12-16.54
Employee private system	64.73	48.39-78.27	47.26	40.55-54.07	58.94	51.09-66.39
Employee domestic service <sup>b</sup>	20.49	10.48-36.19	29.23	23.54-35.66	6.12	3.49-10.50

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup> p<0.05 when comparing categories within the same variable for the immigrant population

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	%	95% CI	%	95% CI	%	95% CI
<b><i>OCCUPATION (cont.)</i></b>						
Unemployed:						
Can't find a job	1.78	0.55-5.59	0.21	0.04-1.03	0.90	0.28-2.90
Found a job and starts soon	0.007	0.001-0.54	1.11	0.24-4.95	1.36	0.38-4.77
Doesn't want to work	4.43	0.95-18.26	8.61	4.75-15.11	8.97	3.28-22.23
Has an intermittent informal job	2.62	0.39-15.48	0.41	0.09-1.71	0.34	0.01-1.07
Other reason, not stated	10.24	3.95-24.04	11.04	5.74-20.18	9.68	4.23-20.63
Inactive:						
Student	36.88	23.69-52.38	42.55	32.42-55.22	50.67	30.68-64.06
Housewife	33.18	22.64-45.72	17.20	11.34-25.24	19.96	12.68-30.97
Retired	8.06	2.99-19.96	16.33	9.40-26.84	7.65	3.90-14.45
Ill	2.73	1.03-7.00	2.54	0.96-6.51	0.54	0.14-2.12
Contractual status (doesn't have a contract)	39.97	23.41-59.19	24.32	18.08-31.66	13.92	9.41-20.10
Type of contract:						
Permanent	65.76	46.77-80.76	73.20	65.06-80.02	68.09	58.97-76.02
Temporary	34.24	19.24-53.23	26.80	19.98-34.94	31.91	23.98-41.03
Contractual workday dedication:						
Part time	11.95	5.32-24.71	9.52	6.00-14.79	11.91	7.36-18.71
Full time	88.05	75.29-94.68	90.48	85.21-94.00	88.09	81.29-92.64

<sup>a</sup> p<0.0001 when comparing categories within the same variable for the immigrant population

<sup>b</sup> p<0.05 when comparing categories within the same variable for the immigrant population

**Table A7.4 Household material** determinants of health of the Chilean-born and the IIP in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born Population		International immigrant population	
	% or mean	95% CI	% or mean	95% CI
Quality of the household:				
Type of walls: <sup>a</sup>				
High quality, solid	90.19	89.84-90.53	89.12	85.64-91.83
Regular quality, semisolid	9.77	9.43-10.11	10.83	8.12-14.30
Poor quality, light material	0.04	0.02-0.07	0.054	0.017-0.17
Type of ceiling: <sup>a</sup>				
High quality, solid	89.88	89.49-90.25	89.84	86.51-92.42
Regular quality, semisolid	9.92	9.56-10.30	9.58	7.04-12.92
Poor quality, light material <sup>c</sup>	0.20	0.14-0.28	0.58	0.32-1.04
Type of floor:				
High quality, solid	77.20	76.70-77.70	80.96	77.04-84.35
Regular quality, semisolid <sup>b</sup>	22.07	21.57-22.57	17.96	14.64-21.85
Poor quality, light material	0.73	0.66-0.81	1.08	0.59-1.95
Rooms:				
Number of bedrooms	X= 2.89	2.87-2.90	X= 2.86	2.73-2.99
Number of total rooms	X= 4.68	4.66-4.70	X=4.66	4.48-4.83
Quality of the household Index:				
Acceptable, all high quality	72.32	71.75-72.87	75.59	71.21-79.51
Sub-standard	26.79	26.24-27.34	23.03	19.18-27.40
Unfit	0.90	0.80-1.00	1.37	0.83-2.27

<sup>a</sup>p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup>p<0.05 when comparing the Chilean-born population with the international immigrant population

<sup>c</sup>p<0.0001 when comparing the Chilean-born population with the international immigrant population

Dimensions	Chilean-born Population		International immigrant population	
	%	95% CI	%	95% CI
Sanitary conditions: <sup>a</sup>				
No access to public clean water system <sup>b</sup>	1.86	1.76-1.96	0.80	0.51-1.25
No access to public sewage system <sup>b</sup>	17.21	16.84-17.59	9.33	7.34-11.80
Sanitary Index (deficient) <sup>b</sup>	17.21	16.84-17.59	9.33	7.34-11.80
Overcrowding rate (CASEN definition): <sup>a</sup>				
No overcrowding	99.80	99.60-99.9	100	-
Moderate overcrowding *	0.20	0.09-0.40	-	-
Severe overcrowding *	0.007	0.001-0.05	-	-
Overcrowded household (Townsend scale): <sup>a</sup>				
Non overcrowded household <sup>b</sup>	67.37	66.67-68.06	74.21	69.42-78.49
Overcrowded household * <sup>b</sup>	32.63	31.94-33.33	25.79	21.51-30.58
Household assets (owing a):				
Car <sup>b</sup>	7.19	7.02-7.36	11.68	9.43-14.38
Washing machine <sup>b</sup>	18.40	18.23-18.58	23.07	20.08-26.36
Fridge <sup>b</sup>	24.40	24.24-24.56	29.26	26.17-32.55
Calefont (water heater) <sup>b</sup>	17.36	17.18-17.55	24.06	20.92-27.50
Landline phone <sup>b</sup>	12.96	12.78-13.15	20.29	17.41-23.50
Cable TV <sup>b</sup>	7.31	7.14-7.48	15.31	12.65-18.40
Computer <sup>b</sup>	9.41	9.23-9.59	16.02	13.34-19.13
Internet <sup>b,c</sup>	5.38	5.22-5.54	12.50	9.97-15.56
Mobile phone <sup>b</sup>	50.20	49.77-50.63	63.47	59.57-67.21
Household asset index (HAI-PCA) <sup>b</sup>	X= 0.34	0.32-0.36	X=1.05	0.79-1.31
Combined materiality index (CMI-PCA) <sup>b</sup>	X=0.42	0.40-0.43	X=1.17	0.90-1.44

\* As defined by CASEN survey, moderate overcrowding rate between 2.5 -4.9; and severe overcrowding rate >5.0

\* As defined by the Townsend scale criteria, percentage of households with more than 1 person per room (total rooms of the household included).

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.0001 when comparing the Chilean-born population with the international immigrant population



**Table A7.5 Household material** determinants of health between different socioeconomic groups among the IIP in Chile, CASEN survey 2006 (weighted sample size 154 431)

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	% or mean	95% CI	% or mean	95% CI	% or mean	95% CI
Quality of the household:						
Type of walls:						
High quality, solid <sup>a</sup>	77.66	66.22-86.25	89.14	83.96-92.79	91.89	87.91-94.66
Regular quality, semisolid <sup>a</sup>	22.05	13.09-33.54	10.81	7.16-15.99	8.11	5.37-12.08
Poor quality, light material	0.29	0.13-0.33	0.04	0.01-0.18	-	-
Type of ceiling:						
High quality, solid <sup>a</sup>	74.08	61.57-83.60	90.01	85.95-92.99	93.68	89.88-96.11
Regular quality, semisolid <sup>a</sup>	23.95	14.61-36.67	9.21	6.31-13.25	6.31	3.88-10.11
Poor quality, light material <sup>a</sup>	1.97	0.91-4.02	0.78	0.35-1.74	0.01	0.003-0.72
Type of floor:						
High quality, solid	78.08	61.57-83.60	80.12	74.37-84.84	86.48	81.81-90.09
Regular quality, semisolid	23.95	14.61-36.70	18.78	14.11-24.55	13.41	9.81-18.07
Poor quality, light material <sup>a</sup>	1.97	0.91-4.22	1.11	0.67-1.78	0.12	0.01-0.72
Rooms:						
Mean number of bedrooms	2.53	2.21-2.84	2.84	2.69-2.98	2.96	2.75-3.17
Mean number of total rooms <sup>a</sup>	4.02	3.60-4.44	4.60	4.38-4.82	4.87	4.61-5.13
Quality of the household Index:						
Acceptable, all high quality <sup>a</sup>	49.60	39.80-61.42	74.75	68.73-79.95	83.71	78.61-87.79
Sub-standard <sup>a</sup>	44.97	33.38-57.13	23.67	18.58-29.69	16.16	12.10-21.26
Unfit <sup>a</sup>	5.44	2.37-11.97	1.58	0.96-2.58	0.13	0.02-0.67

<sup>a</sup>p<0.0001 when comparing categories within the same variable for the immigrant population by SES

<sup>b</sup>p<0.05 when comparing categories within the same variable for the immigrant population by SES

Dimensions	Low socioeconomic status		Medium socioeconomic status		High socioeconomic status	
	% or mean	95% CI	% or mean	95% CI	% or mean	95% CI
Sanitary conditions:						
No access to public clean water system <sup>a</sup>	3.03	1.41-6.42	0.81	0.48-1.81	0.16	0.03-0.76
No access to public sewage system <sup>a</sup>	22.88	15.00-33.99	9.39	7.15-12.25	5.78	3.87-8.55
Sanitary Index (deficient) <sup>a</sup>	22.88	15.00-33.99	9.39	7.15-12.25	5.78	3.87-8.55
Overcrowding rate (CASEN definition):						
No overcrowding	100	-	100	-	100	-
Moderate overcrowding *	-	-	-	-	-	-
Severe overcrowding *	-	-	-	-	-	-
Overcrowded household (Townsend scale):						
Non overcrowded household <sup>a</sup>	45.11	33.19-57.62	72.52	65.89-78.28	83.08	76.98-87.82
Overcrowded household * <sup>a</sup>	54.89	42.38-66.81	27.48	21.72-34.11	16.92	12.18-23.02
Household assets (owing a):						
Car <sup>a</sup>	1.02	0.34-3.02	6.03	3.97-6.06	20.09	15.79-25.22
Washing machine <sup>a</sup>	7.47	4.21-12.92	17.50	14.00-21.65	32.85	27.44-38.76
Fridge	13.97	9.46-20.16	23.73	19.78-28.19	39.00	33.57-44.71
Calefont (water heater) <sup>a</sup>	7.03	3.80-12.64	17.43	13.72-21.89	35.28	29.73-41.25
Landline phone <sup>a</sup>	7.32	3.82-13.57	15.24	11.73-19.58	28.90	23.77-34.64
Cable TV <sup>a</sup>	1.89	0.50-6.96	8.73	5.92-12.71	25.51	20.58-31.17
Computer <sup>a</sup>	1.65	0.46-5.77	9.66	6.75-13.63	26.28	21.26-30.01
Internet <sup>a</sup>	0.40	0.05-2.77	5.76	3.51-9.32	22.52	17.67-28.25
Mobile phone <sup>a</sup>	34.15	25.06-44.58	56.09	50.58-61.46	78.75	73.38-83.29
Household asset index (HAI-PCA) <sup>a</sup>	-0.47	-0.67 - -0.26	0.38	0.08-0.68	2.13	1.65-2.61
Combined material index (CMI-PCA) <sup>a</sup>	-0.49	-0.70 - -0.27	0.50	0.20-0.81	2.27	1.78-2.75

\* As defined by CASEN survey, moderate overcrowding rate between 2.5 -4.9; and severe overcrowding rate >5.0

\* As defined by the Townsend scale criteria, percentage of households with more than 1 person per room (total rooms of the household included).

<sup>a</sup>p<0.0001 when comparing categories within the same variable for the immigrant population by SES

## **APPENDIX 7.2**

### **DESCRIBING HIERARCHICAL CLUSTER ANALYSIS USED IN THIS STUDY**

Because of the complex and varied socioeconomic conditions of the immigrant population in this study, the estimation of a latent variable of socioeconomic status throughout cluster analysis was explored. This method allows the grouping of individuals according to their similarities, discriminating between immigrants with different characteristics and gathering together those with similar attributes. Among a wide range of multivariate techniques, cluster analysis was selected to describe the different groups that co-exist in the international immigrant population according to their SES. A detailed explanation of this method and how it was used in this dataset is presented in the following paragraphs.

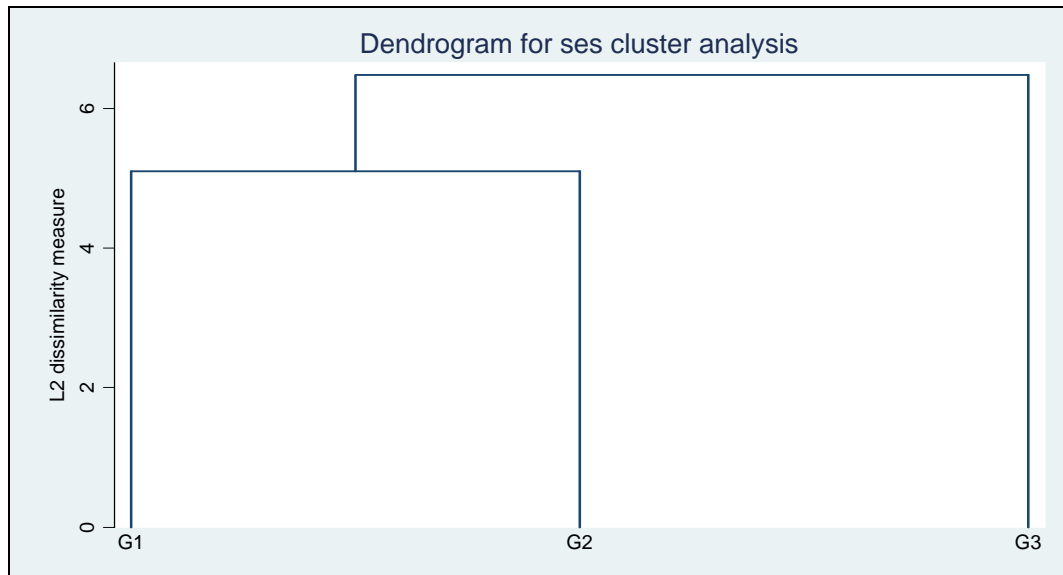
Cluster analysis is a generic name for a variety of mathematical methods, numbering in the hundreds, which can be used to find out which objects in a set are similar (Romesburg, 2004). Objects with similar descriptions are mathematically gathered into the same cluster with the purpose of making meaningful descriptive classifications or categories. The purpose of cluster analysis is to identify subsets of a data set that contain similar points. Replacing these subsets by their aggregate properties, such as means and standard deviations, for example, it creates a compact representation of the data set as a set of clusters. The cluster properties can then be used for comparative data analysis (Maxwell, Pryor & Smith, 2002).

There are a number of clustering techniques, the most common ones being k-means and hierarchical clustering algorithms (Johnson, 1967). Hierarchical clustering is a step-wise process that merges the two closest or furthest data points or group of data points at each step. As the major interest in this study was to display in a clearer fashion the polarised socioeconomic groups that emerged from the descriptive analysis, hierarchical cluster analysis was selected as the appropriate method to use. Interestingly, hierarchical cluster analysis has been reported as the most frequent type of cluster analysis used in health research, because of its well-structured method (Romesburg, 2004). A hierarchical clustering process creates a tree structure with each data point as a leaf at the top of the tree and all of the data points as a single group at the bottom. The hierarchical clustering algorithm can generate any number of groups simply by arbitrary stopping the step-wise process. In other words, the researcher decides when to cut the tree, depending on the desired number of branches or subsets (Maxwell, Pryor and Smith, 2002). I chose three clusters in order to clearly display the two polarized groups, but also to observe gradients if they existed among the immigrant population.

Methods of hierarchical cluster analysis follow a prescribed set of steps, the main ones being: (1) collect a data matrix whose columns stand for the objects to be cluster-analysed and whose rows are the attributes that describe the objects, (2) optionally standardise the data matrix, (3) using the data matrix, compute the values of a resemblance coefficient to measure the similarities among all pairs of objects (in this study the 1877 individuals who reported being international immigrants in the survey), and (4) use a clustering method to process the values of the resemblance coefficient, which results in a diagram called a tree or dendrogram, that shows the hierarchy of similarities among all pairs of objects. The clusters can be read off from the tree. These steps are constant, but the type of hierarchical cluster method selected may vary between studies.

Complete-linkage hierarchical cluster analysis was conducted by combining the socioeconomic variables income (continuous variable), educational level (ordinal) and employment status (binary). The complete-linkage method creates clusters from the most distant values of the selected attributes (or variables) (Stata handbook for multivariate analysis, 2005). The immigrant population was then grouped into three socioeconomic clusters. These three groups displayed the polarization presented in the previous section (extreme distant clusters) and also displayed immigrants somewhere in the middle between the two socioeconomic poles. It should be noted that any number of clusters could be calculated. In this sense and due to the hierarchical nature of this method, other number of clusters can be selected by simply dividing or combining these three clusters. The dendrogram derived from this analysis has been presented in Figure A7.1.

**Figure A7.1** Dendrogram obtained after complete-linkage hierarchical cluster analysis in this study



### **APPENDIX 7.3 DESCRIBING THE PRINCIPAL COMPONENT ANALYSIS (PCA) METHOD USED IN THIS STUDY**

Immigrants in Chile might be living in poorer household material conditions and so at a higher risk of developing health problems, especially those living at a lower socioeconomic status. Material conditions, at a household level, can include many indicators, often correlated, such as quality of the walls, ceiling and floor, sanitary conditions, overcrowding, noise, temperature, and assets. The CASEN survey incorporates most of these dimensions, and due to their high correlation, it was necessary to conduct multivariate analysis to combine these multiple measures into reliable indexes. Two indexes were created, a household asset index (HAI), combining nine different assets measured in the survey, and a combined material index (CMI) that included all the nine assets plus quality of housing, overcrowding and sanitary conditions, as an integrated measure of material living standards of the household. The following paragraphs explain the multivariate methods used to construct these indexes (principal component analysis).

#### **APPENDIX 7.3.1 METHODOLOGICAL EXPLANATION OF PCA**

Multivariate analysis was conducted in order to fulfil the three following objectives: (1) To achieve data reduction or simplification; (2) To sort and group the broad population included in this national survey; and (3) To develop a meaningful measurement of the material dimension of socioeconomic position to the Chilean context (Houweling, Kunst and Mackenbach, 2003; Doku, Koivusita and Rimpela, 2009; Crontinovic et al., 1993; Currie et al., 1997; Galobardes et al., 2006a; Galobardes et al., 2006b; Vyas and Kumoranayake, 2006; Gwatkin et al., 2000). Two multivariate methods were considered, those being principal component analysis (PCA) and exploratory factor analysis (EFA, considered in this study a synonym for factor analysis, FA, because no Confirmatory Factor Analysis, CFA, was conducted). Both factor and principal component analysis are statistical techniques for data reduction. They condense the number of variables by describing combinations of the variables that contain most of the information and that, hopefully, allow meaningful interpretations of a multidimensional, latent or unobservable variable, such as socioeconomic status (Gorsuch, 1983; Hamilton, 2004; Moser & Felton, 2007).

*A7.3.1.a) The household asset index (HAI)*

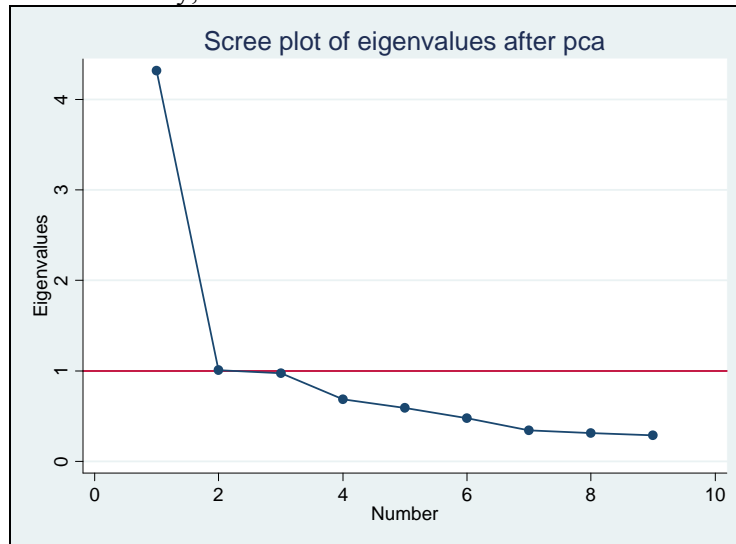
Measuring household socioeconomic status in developing countries poses recognised challenges. Since data on household income or expenditure are often unavailable or unreliable as measure of economic status, the use of an asset index has been considered a good alternative to distinguish layers of wealth within a population (Houweling et al., 2003). In this sense, the assets that households have acquired are considered a good indicator of their socioeconomic status (Houweling et al., 2003, Filmer and Patrick, 2001; Bollen et al., 2002). These assets have mostly been combined into an index of socioeconomic status using PCA, which has shown a higher predictive value than other proxies such as an index based on the value of goods owned or occupation (Houweling et al., 2003; Bollen et al., 2002).

Nine household assets were available in the CASEN dataset: car, washing machine, fridge, water heater, land phone, cable TV connection, computer, internet access, and mobile. Multivariate analysis was conducted in order to group these variables into a single score that could provide a more reliable and interpretable measure of socioeconomic position. As recommended by expert literature, correlation between the variables was firstly explored. This demonstrated that the nine assets were highly correlated ( $p < 0.0001$ , multiple logistic regression). In addition, Cronbach's alpha was computed to assess the internal reliability of the variables considered to create the HAI. The value obtained from Cronbach's alpha test corresponds to the average of the covariates among the pairs within a group of manifest variables. For the nine household assets, it was adequate, above the minimum recommended of 0.5 ( $\alpha = 0.81$ ), indicating high correlation between all these indicators. Consistent with this result, the Kaiser-Meyer-Olkin measure of sampling adequacy was also above the minimum recommended of 0.6 (0.88), indicating adequate internal consistency of the indicators for PCA (Doku et al., 2009, Kaiser, 1974).

These significant results supported the possibility of conducting PCA for the household assets. When the principal component analysis was conducted the results showed that the first principal component accounted for 47.48% of the variance and dominated over the exploratory factor analysis. The household asset index was then constructed by PCA method for the total Chilean population using the single first component after PCA, as it was the only one with an Eigen value over 1.0 (see Figure A7.2) (HAI, range -1.00 to 9.87). Rotation of the principal components was not conducted, because it destroys some of the properties of the method itself. In particular, the first rotated component no longer has maximal variance, which is the key reason for using this method to estimate socioeconomic status in the first place. As preserving

the maximal variance property was very important for this study, rotation was not conducted (Stata handbook for multivariate analysis, 2005).

**Figure A7.2** Screeplot of unrotated Eigen values obtained from PCA of nine household assets. CASEN survey, 2006





### A7.3.1.b) *The combined material index (CMI)*

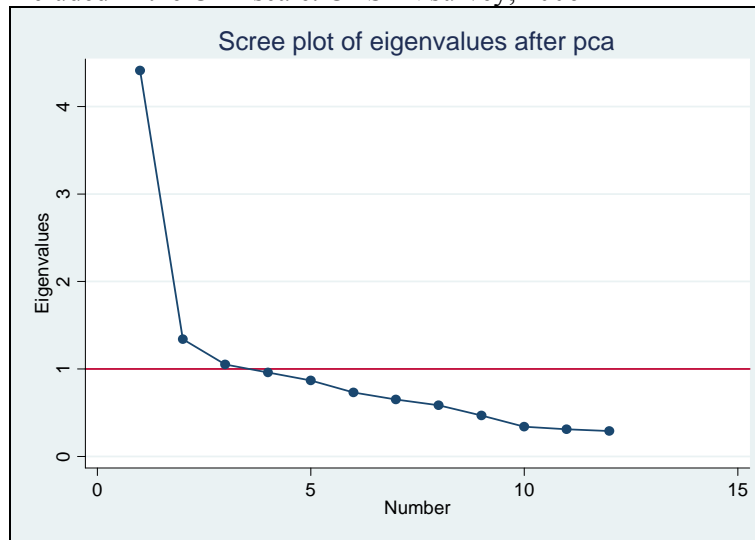
As noted above, measuring household economic status in developing countries poses recognised challenges. The World Bank, for instance, has developed a tool to measure the relative socioeconomic position of households using data on assets combined with housing quality, water and sanitary facilities and other amenities through PCA (Houweling et al., 2003; Gwatkin et al., 2000). The percentage of explained variance in the World Bank's household asset index for developing countries has been between 12 and 20% (Houweling et al., 2003). Using such an asset index, overviews of health indicators by population wealth quintile have been made by several social health and health economic researchers (Gwatkin et al., 2000).

Why construct this combined index in addition to the previous HAI? Three reasons could be argued. The first one is that this combined index can take into account the implicit interaction between material factors that work *directly* on health, such as the exposure to infections, through unhygienic sanitary facilities for example, and the more distant material factors that work *indirectly*, such as household wealth measured by the household assets (Houweling et al., 2003; Bartley, 2007) (for more detail on this theoretical discussion see Chapter 4 point 4.1.1). The second is that some of the variables included in these indexes are publicly provided or are dependent on the availability of infrastructure on the community level (e.g. availability of clean water or public sewage system), adding knowledge on the importance of community resources for health and well-being that are also correlated with the asset-related individual level (Houweling et al., 2003). Third, it supports comparative analysis with studies from other developing countries that have had the same approach to the measurement of socioeconomic position.

The construction of a weighted index combining the different material conditions available in the CASEN survey was explored, by the statistical method of Principal Component Analysis (PCA). Again, items were highly correlated ( $p < 0.0001$ , multiple logistic regression) and, again, the PCA method dominated over FA as it accounted for a higher proportion of the variance. The items considered for the construction of this index were: the nine assets mentioned previously, sanitary conditions, quality of the housing quality and overcrowded rate as defined by the Townsend criteria (12 items in total). Cronbach's alpha (0.73) and the Kaiser-Meyer-Olkin measure were adequate (0.83), indicating sufficient internal consistency of the indicators for the estimation of PCA (Doku et al., 2009, Kaiser, 1974).

Findings from this method showed that the *three* first principal components had Eigen values over 1.0 (4.41, 1.34 and 1.04, respectively) (see Figure A7.3). The *first* principal component explained 36.75% of the variance and, as recommended by the expert literature, the CMI score was developed by using the first principal component only. The CMI by PCA method for the total Chilean population was then created (CMI, range -1.34 to 9.94).

**Figure A7.3** Scree plot of unrotated Eigen values obtained from PCA analysis of the 12 items included in the CMI scale. CASEN survey, 2006



**APPENDIX 7.3.2****RESULTS FROM PRINCIPAL COMPONENT ANALYSIS, HOUSEHOLD ASSET INDEX****A7.3.2.a) Household asset index by principal component analysis (HAI) (details of the first factor in grey shade in the table)**

Principal components/correlation                      Number of obs     =     268873  
    Number of comp.   =         9  
    Trace                 =         9  
 Rotation: (unrotated = principal)                    Rho                  =       1.0000

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	4.31838	3.31108	0.4798	0.4798
Comp2	1.0073	.0318295	0.1119	0.5917
Comp3	.975466	.290941	0.1084	0.7001
Comp4	.684525	.094367	0.0761	0.7762
Comp5	.590158	.114586	0.0656	0.8418
Comp6	.475572	.130879	0.0528	0.8946
Comp7	.344692	.0310276	0.0383	0.9329
Comp8	.313665	.0234162	0.0349	0.9678
Comp9	.290249	.	0.0322	1.0000

Principal components (eigenvectors)

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6
car	0.2967	-0.0081	0.0904	0.9314	0.1005	0.1531
washmach	0.3803	-0.3416	-0.0143	-0.0965	-0.1203	-0.3156
fridge	0.3683	-0.4456	-0.0174	-0.0533	-0.1294	-0.2468
calefont	0.3891	-0.2855	-0.0565	-0.1018	-0.0979	0.1065
landphone	0.3642	-0.0136	-0.2009	-0.2409	0.0467	0.8065
cableTV	0.3262	0.2051	-0.0581	-0.1473	0.8736	-0.2449
computer	0.3618	0.4138	0.0124	-0.0109	-0.3336	-0.2737
internet	0.3130	0.6242	-0.0449	-0.0739	-0.2668	-0.0197
mobile	0.1120	0.0042	0.9707	-0.1570	0.0347	0.1378

Variable	Comp7	Comp8	Comp9	Unexplained
car	0.0460	0.0017	-0.0232	0
washmach	0.5319	-0.2588	-0.5149	0
fridge	0.0876	0.3612	0.6685	0
calefont	-0.7352	0.1850	-0.3974	0
landphone	0.2209	-0.2076	0.1559	0
cableTV	-0.0494	0.0003	0.0288	0
computer	-0.2637	-0.6063	0.2724	0
internet	0.2137	0.5980	-0.1734	0
mobile	0.0183	0.0057	0.0059	0

**A7.3.2.b) DESCRIPTION OF THE HAI, CASEN 2006**

Scoring coefficients

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7
car	0.2967	-0.0081	0.0904	0.9314	0.1005	0.1531	0.0460
washmach	0.3803	-0.3416	-0.0143	-0.0965	-0.1203	-0.3156	0.5319
fridge	0.3683	-0.4456	-0.0174	-0.0533	-0.1294	-0.2468	0.0876
calefont	0.3891	-0.2855	-0.0565	-0.1018	-0.0979	0.1065	-0.7352
landphone	0.3642	-0.0136	-0.2009	-0.2409	0.0467	0.8065	0.2209
cableTV	0.3262	0.2051	-0.0581	-0.1473	0.8736	-0.2449	-0.0494
computer	0.3618	0.4138	0.0124	-0.0109	-0.3336	-0.2737	-0.2637
internet	0.3130	0.6242	-0.0449	-0.0739	-0.2668	-0.0197	0.2137
mobile	0.1120	0.0042	0.9707	-0.1570	0.0347	0.1378	0.0183

Variable	Comp8	Comp9
car	0.0017	-0.0232
washmach	-0.2588	-0.5149
fridge	0.3612	0.6685
calefont	0.1850	-0.3974
landphone	-0.2076	0.1559
cableTV	0.0003	0.0288
computer	-0.6063	0.2724
internet	0.5980	-0.1734
mobile	0.0057	0.0059

Scores for component 1

Percentiles	Smallest		
1%	-1.007754	-1.007754	
5%	-1.007754	-1.007754	
10%	-1.007754	-1.007754	Obs 268873
25%	-1.007754	-1.007754	Sum of Wgt. 268873
50%	-.7823089		Mean 8.79e-09
		Largest	Std. Dev. 2.078071
75%	-.7823089	9.879486	
90%	2.562423	9.879486	Variance 4.318377
95%	4.93964	9.879486	Skewness 2.710479
99%	8.64289	9.879486	Kurtosis 10.37692

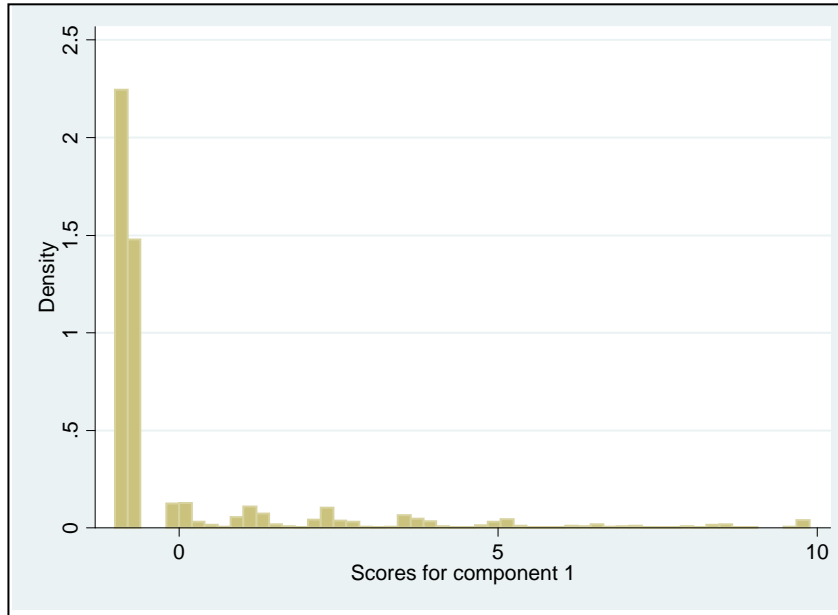
Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
car	0.9551
washmach	0.8847
fridge	0.8584
calefont	0.8944
landphone	0.9156
cableTV	0.9426
computer	0.8468
internet	0.7988
mobile	0.8924
<b>Overall</b>	<b>0.8825</b>

**Cronbach's alpha of the HAI**

Test scale = mean(unstandardized items)  
Average interitem covariance: .0333472  
Number of items in the scale: 9  
**Scale reliability coefficient: 0.8132**

**Figure A7.4 Distribution of the HAI score in the total Chilean population, CASEN 2006**



## APPENDIX 7.3.3

## RESULTS FROM PRINCIPAL COMPONENT ANALYSIS, COMBINED MATERIAL INDEX

## A7.3.3.a) CMI USING 12 items (details of the 3 first factors in grey shade in the table)

```
. pca overcrowTownscat sanitindex matindex car washmach fridge calefont landphone cableTV
computer internet mobile
```

```
Principal components/correlation          Number of obs   =   266887
                                           Number of comp. =    12
                                           Trace           =    12
Rotation: (unrotated = principal)       Rho             =   1.0000
```

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	4.41015	3.06823	0.3675	0.3675
Comp2	1.34192	.294025	0.1118	0.4793
Comp3	1.0479	.0870272	0.0873	0.5667
Comp4	.960868	.0928515	0.0801	0.6467
Comp5	.868017	.138388	0.0723	0.7191
Comp6	.729629	.0807275	0.0608	0.7799
Comp7	.648901	.0643566	0.0541	0.8339
Comp8	.584545	.117433	0.0487	0.8827
Comp9	.467112	.125066	0.0389	0.9216
Comp10	.342045	.0300889	0.0285	0.9501
Comp11	.311956	.0249977	0.0260	0.9761
Comp12	.286959	.	0.0239	1.0000

Principal components (eigenvectors)

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7
overcrowTo~t	-0.1049	0.3278	0.4682	-0.2329	0.7723	-0.0882	-0.0440
sanitindex	0.1003	-0.6029	0.2312	-0.2664	0.1338	0.4990	0.4315
matindex	-0.0844	0.6262	-0.0935	0.2308	-0.0607	0.6494	0.3044
car	0.2906	0.1096	-0.0625	0.1463	0.0590	-0.4907	0.7861
washmach	0.3742	0.0917	-0.2496	-0.1835	0.1440	0.0614	-0.1057
fridge	0.3612	0.1318	-0.3594	-0.2075	0.1377	0.0122	-0.1077
calefont	0.3854	0.0325	-0.1945	-0.2129	0.0721	0.0190	-0.0980
landphone	0.3604	0.0392	0.0746	-0.1972	-0.0893	0.1691	-0.1099
cableTV	0.3214	0.0455	0.2032	0.0505	-0.0521	0.1601	0.0336
computer	0.3561	0.0457	0.3314	0.2368	-0.0914	-0.0502	-0.1156
internet	0.3078	0.0378	0.5058	0.3048	-0.2121	-0.0235	-0.1601
mobile	0.1168	-0.3016	-0.2701	0.6983	0.5192	0.1381	-0.1293

Variable	Comp8	Comp9	Comp10	Comp11	Comp12	Unexplained
overcrowTo~t	0.0021	0.0357	0.0126	0.0203	0.0094	0
sanitindex	0.1727	-0.1192	-0.0036	0.0499	0.0482	0
matindex	0.1292	-0.0020	0.0554	0.0146	-0.0270	0
car	0.0121	0.1156	-0.0472	0.0092	-0.0158	0
washmach	0.1057	-0.3135	-0.5530	-0.2155	-0.5082	0
fridge	0.1007	-0.2180	-0.0668	0.3157	0.6982	0
calefont	0.0847	0.0883	0.7243	0.2116	-0.4096	0
landphone	-0.0314	0.8160	-0.1979	-0.2304	0.1282	0
cableTV	-0.8793	-0.2130	0.0465	-0.0060	0.0249	0
computer	0.3074	-0.2813	0.2680	-0.6210	0.2235	0
internet	0.2326	-0.0026	-0.2157	0.6059	-0.1269	0
mobile	-0.0462	0.1650	-0.0058	0.0023	-0.0032	0

## Description of the CMI

Percentiles		Smallest		
1%	-1.341914	-1.497923		
5%	-1.341914	-1.497923		
10%	-1.185904	-1.497923	Obs	266887
25%	-.9831541	-1.497923	Sum of Wgt.	266887
50%	-.7657828		Mean	-1.96e-09
		Largest	Std. Dev.	2.100036
75%	-.5306561	9.948557		
90%	2.593176	9.948557	Variance	4.410153
95%	5.009507	9.948557	Skewness	2.659276
99%	8.739723	9.948557	Kurtosis	10.13439

## Cronbach's alpha of the CMI

```
. alpha overcrowTownscat sanitindex matindex car washmach fridge calefont landphone
cableTV computer internet mobile
```

```
Test scale = mean(unstandardized items)
```

```
Reversed items: overcrowTownscat matindex
```

```
Average interitem covariance: .0268727
```

```
Number of items in the scale: 12
```

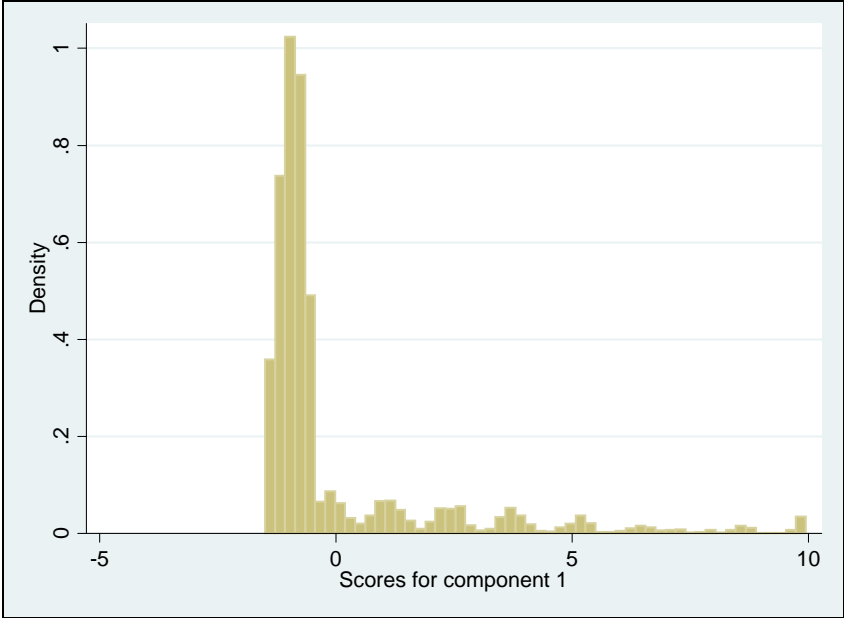
```
Scale reliability coefficient: 0.7385
```

**Kaiser-Meyer-Olkin measure of sampling adequacy of the CMI**, it compares the correlations and the partial correlations between variables (using the Kaiser characterization of KMO values, over 0.6 acceptable, over 0.8 “meritorious”) (Kaiser 1974)

Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
overcrowTo~t	0.8726
sanitindex	0.6714
matindex	0.6605
car	0.9522
washmach	0.8871
fridge	0.8550
calefont	0.8959
landphone	0.9158
cableTV	0.9435
computer	0.8496
internet	0.8020
mobile	0.8358
<b>Overall</b>	<b>0.8745</b>

Figure A7.5 Distribution of the CMI score in the total Chilean population, CASEN 2006





## **APPENDIX 8**

### **TABLES AND FIGURES FROM CHAPTER 8**

**Table A8.1 Access to and use of health care** of the total Chilean population and the IIP in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born Population		International immigrant population living in Chile	
	% or mean	95% CI	% or mean	95% CI
Type of provision: <sup>a</sup>				
None or don't know <sup>b</sup>	15.37	14.90-15.86	28.10	23.86-32.77
Public 100% free <sup>b</sup>	29.39	28.90-29.89	15.27	12.65-18.33
Public with some co-payment <sup>b</sup>	47.46	46.89-48.03	39.09	34.73-43.63
Private	2.70	2.50-2.91	1.97	0.85-4.48
Other <sup>b</sup>	5.08	4.86-5.31	15.57	12.66-19.01
Use of cervical cancer screening programme (yes)	48.50	47.95-49.04	52.34	45.80-58.81
Use of any mental care in the past 3 months	14.37	11.80-17.38	16.70	16.38-17.02
Use of any dental care in the past 3 months	8.81	6.96-11.09	7.51	7.29-7.74
Use of any specialist care past 3 months	9.85	7.54-12.77	9.11	8.88-9.35
Mean number of attentions received from preventive health care programmes	X= 2.02	1.99-2.05	X=1.97	1.66-2.27
Number of preventive health care attentions received, categories: <sup>a</sup>				
1 or 2 health attentions	68.31	67.58-69.03	67.51	56.81-76.65
3 or 4 health attentions	26.82	26.16-27.49	28.72	20.00-39.36
5 or 6 health attentions	3.10	2.82-3.42	0.97	0.21-4.35
7 or more health attentions	1.76	1.58-1.97	2.80	0.96-7.93

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.0001 when comparing the Chilean-born population with the international immigrant population

**Table A8.2 Access to and use of health care** by different socioeconomic clusters among the IIP in Chile, CASEN survey 2006 (weighted sample size 154 431)

Dimensions	Low SES		Medium SES		High SES	
	% or mean	95% CI	% or mean	95% CI	% or mean	95% CI
Type of provision:						
Private	-	-	2.31	0.77-6.76	2.14	0.60-7.38
Public 100% free <sup>b</sup>	32.25	25.86-45.94	16.10	12.46-20.55	9.36	6.58-13.13
Public with some co-payment <sup>b</sup>	40.48	29.87-52.05	44.92	39.16-50.81	32.99	26.75-39.90
None/don't know <sup>b</sup>	14.57	7.17-27.36	20.86	16.00-26.71	38.68	31.88-45.94
Other	9.71	5.83-15.73	15.81	12.06-20.51	16.38	12.12-22.90
Use of cervical cancer screening service	36.84	23.91-51.99	39.68	32.87-46.90	58.55	49.98-66.63
Any mental care received past 3 months	15.31	9.31-29.15	12.45	9.21-16.63	16.15	11.95-21.47
Any dental care received past 3 months	4.91	1.91-12.02	8.05	5.74-11.18	10.63	7.49-14.87
Any other specialist care received past 3 months	4.91	1.47-15.14	7.40	5.13-10.56	13.44	9.52-18.63
Mean number of preventive health care attentions	1.63	1.18-2.09	2.20	1.70-2.70	1.84	1.35-2.33
Number of preventive health care attentions, categories:						
1 or 2 health controls	71.06	44.49-88.27	63.63	47.01-77.44	70.26	51.94-83.78
3 or 4 health controls	28.94	11.73-55.51	30.42	17.24-47.85	26.91	14.29-44.85
5 or 6 health controls	-	-	2.24	0.48-9.82	-	-
7 or more health controls	-	-	3.71	1.15-11.31	2.83	0.37-18.75
Type of last preventive health care:						
Well baby care	28.10	11.28-56.56	12.59	6.32-23.52	100	-
Antenatal care <sup>b</sup>	0.51	0.11-2.42	9.62	4.45-19.58	16.03	6.79-33.36
Gynaecologic control	33.77	14.74-60.66	22.87	11.40-40.58	16.55	6.99-34.36
Chronic disease control	15.16	6.71-30.75	12.13	4.37-29.40	21.13	9.08-41.83
Preventive adult and elderly	13.88	5.02-32.95	33.05	20.38-48.76	28.31	12.17-52.96
Other control attention	8.57	2.25-27.58	9.75	4.86-18.61	17.98	8.78-33.29

<sup>a</sup> p<0.0001 when comparing categories within the same variable for the immigrant population by SES

<sup>b</sup> p<0.05 when comparing categories within the same variable for the immigrant population by SES

**Table A8.3** Partially adjusted Relative Rate Ratio (RRR) of being entitled to a particular health care provision type in Chile **by demographics only**, a comparison between the International Immigrant Population (IIP) and the Chilean-born, CASEN, 2006 (weighted sample size 154 431 and 16 130 743, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Provision type in the International Immigrant population		Provision type among the Chilean-born	
	RRR	95% CI	RRR	95% CI
<b><i>PUBLIC FREE OF CHARGE</i></b> (no health care provision as baseline)				
Sex (female=1)	1.69	1.10-2.61	1.32	1.27-1.38
Age	0.99	0.97-1.10	1.01	1.01-1.02
Marital status:				
Single	1.00	(no signif. trend)	1.00	(signif. trend)
Married	1.31	0.74-2.32	0.61	0.57-0.66
Divorced	0.95	0.30-2.97	1.15	1.01-1.31
Widow	5.82	1.17-28.80	1.86	1.53-2.27
Ethnicity: any	2.99	0.60-14.85	2.88	2.39-3.46
Zone: (rural=1)	3.77	1.79-7.91	6.41	5.74-7.15
Area:				
Northern	1.00	-	1.00	-
Central	0.97	0.32-2.95	0.87	0.75-1.001
Southern	2.74	0.85-8.85	1.92	1.66-2.23
Number of household members:	1.27	1.08-1.50	1.24	1.21-1.27
<b><i>PUBLIC WITH CO-PAYMENT</i></b> (no health care provision as baseline)				
Sex (female=1)	1.75	1.23-2.51	1.13	1.09-1.17
Age	0.99	0.97-1.00	1.009	1.007-1.01
Marital status:				
Single	1.00	(no signif. trend)	1.00	(no signif. trend)
Married	1.69	1.04-2.75	0.93	0.86-1.001
Divorced	1.12	0.45-2.79	1.08	0.95-1.23
Widow	3.90	0.87-17.38	2.47	2.04-2.99

Ethnicity: any	1.43	0.33-6.23	1.81	1.51-2.18
Zone: Rural=1	1.74	0.91-3.30	3.17	2.85-3.53
Area:				
Northern	1.00	-	1.00	(no signif. trend)
Central	0.90	0.38-2.11	0.84	0.74-0.96
Southern	2.18	0.80-5.93	1.32	1.15-1.51
Number of household members:	1.20	1.04-1.39	1.12	1.10-1.15
<b><i>PRIVATE</i> (no health care provision as baseline)</b>				
Sex (female=1)	1.89	0.41-8.72	1.004	0.92-1.08
Age	1.03	0.97-1.08	1.01	1.01-1.02
Marital status:				
Single	1.00	(no signif. trend)	1.00	(no signif. trend)
Married	2.56	0.41-15.98	1.03	0.91-1.17
Divorced	0.03	0.003-0.41	0.84	0.63-1.11
Widow	41.35	2.40-72.14	2.56	1.90-3.46
Ethnicity: any	0.60	0.40-0.91	0.96	0.64-1.41
Zone: Rural=1	0.55	0.03-9.39	0.59	0.47-0.75
Area:				
Northern	1.00	-	1.00	(no signif. trend)
Central	1.13	0.08-15.45	1.06	0.79-1.41

Southern	0.13	0.05-3.47	1.84	1.35-2.49
Number of household members:	1.03	0.58-3.47	1.05	1.009-1.10
<b><i>OTHER NOT STATED</i></b> (no health care provision as baseline)				
Sex (female=1)	0.95	0.60-1.51	0.70	0.65-0.75
Age	0.98	0.96-1.01	1.01	1.001-1.02
Marital status:				
Single	1.00	-	1.00	(signif. trend)
Married	2.01	0.87-4.63	0.52	0.46-0.60
Divorced	1.26	0.38-4.13	1.40	1.16-1.69
Widow	3.08	0.43-21.63	0.50	0.36-0.69
Ethnicity: any	2.41	0.62-9.35	1.84	1.45-2.33
Zone: Rural=1	2.57	1.10-6.01	3.11	2.74-3.55
Area:				
Northern	1.00	-	1.00	-
Central	0.67	0.26-1.71	0.81	0.68-0.98
Southern	1.23	0.41-3.66	0.97	0.80-1.18
Number of household members:	1.06	0.26-1.71	1.13	1.09-1.16

**Table A8.4** Partially adjusted Relative Rate Ratio (RRR) of being entitled to a particular health care provision type in Chile by socioeconomic (adjusted by demographic), a comparison between the International Immigrant Population (IIP) and the Chilean-born, CASEN, 2006 (weighted sample size 154 431 and 16 130 743, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Provision type in the International Immigrant population		Provision type among the Chilean-born	
	RRR	95% CI	RRR	95% CI
<b><i>PUBLIC FREE OF CHARGE</i></b> (no health care provision as baseline)				
Sex (female=1)	1.93	1.20-3.11	1.30	1.24-1.36
Age	1.01	0.99-1.02	1.01	1.01-1.01
Zone: (rural=1)	3.24	1.54-6.82	3.78	3.40-4.20
Ethnicity: any	1.75	0.55-5.57	2.71	2.22-3.30
Educational level:				
No education	26.72	5.14-38.78	16.03	13.78-18.64
Primary School	7.33	2.77-19.40	14.27	12.58-16.20
High School	5.62	2.25-14.04	7.65	6.77-8.64
Technical level	6.99	2.52-19.41	5.21	4.56-5.95
University level	1.00	(signif. trend)	1.00	(signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	5.84	2.23-39.84	16.09	15.23-21.74
Quintile 2	27.10	8.91-88.84	18.20	15.23-21.74
Quintile 3	11.68	3.42-39.84	10.33	8.87-12.03
Quintile 4	6.92	2.82-16.98	4.06	3.55-4.64
Quintile 5 (wealthiest)	1.00	(signif. trend)	1.00	(signif. trend)
Unemployed status (yes=1)	0.40	0.15-1.08	0.97	0.84-1.11

<b><i>PUBLIC WITH CO-PAYMENT</i> (no health care provision as baseline)</b>				
Sex (female=1)	1.89	1.29-2.78	1.15	1.10-1.20
Age	1.008	0.99-1.02	1.01	1.01-1.01
Zone: (rural=1)	1.96	1.05-3.67	2.23	2.01-2.47
Ethnicity: any	1.11	0.36-3.45	1.63	1.36-2.00
Educational level:				
No education	5.77	1.47-22.55	4.37	3.87-4.93
Primary School	2.93	1.40-6.12	4.36	3.99-4.76
High School	3.63	1.99-6.60	3.61	2.57-3.92
Technical level	3.66	1.71-7.85	2.82	2.57-3.09
University level	1.00	(signif. trend)	1.00	(signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	1.89	0.83-4.31	3.72	3.21-4.30
Quintile 2	5.97	2.38-14.93	7.32	6.18-8.68
Quintile 3	3.14	1.35-6.24	5.45	4.73-6.27
Quintile 4	2.93	1.37-6.24	3.10	2.76-3.48
Quintile 5 (wealthiest)	1.00	(signif. trend)	1.00	(signif. trend)
Unemployed status (yes=1)	0.45	0.19-1.03		
<b><i>PRIVATE</i> (no health care provision as baseline)</b>				
Sex (female=1)	1.35	0.32-5.61	0.99	0.91-1.07
Age	1.07	1.02-1.12	1.01	1.01-1.01
Zone: (rural=1)	0.24	0.01-3.78	0.53	0.42-0.67
Ethnicity: any	0.49	0.04-0.90	0.94	0.63-1.39
Educational level:				
No education	0.60	0.09-0.94	2.56	1.92-3.41
Primary School	11.64	1.28-15.55	1.85	1.49-2.30
High School	1.49	0.18-11.96	3.04	2.48-3.71
Technical level	9.91	1.92-50.99	2.04	1.63-2.55
University level	1.00	(signif. trend)	1.00	(signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	1.14	0.14-8.90	4.35	3.42-5.54



Quintile 2	0.30	0.16-0.78	3.14	2.25-4.37
Quintile 3	0.01	0.001-0.35	3.38	2.51-4.55
Quintile 4	0.87	0.07-10.48	2.83	2.23-3.63
Quintile 5 (wealthiest)	1.00	(no signif. trend)	1.00	(signif. trend)
Unemployed status (yes=1)	3.01	0.45-19.93	1.009	0.82-1.24
<b><i>OTHER NOT STATED</i></b> (no health care provision as baseline)				
Sex (female=1)	0.98	0.63-1.54	0.68	0.63-0.73
Age	1.003	0.98-1.01	1.008	1.006-1.01
Zone: (rural=1)	2.80	1.20-6.55	2.46	2.16-2.79
Ethnicity: any	2.44	0.82-7.25	1.66	1.30-2.12
Educational level:				
No education	2.28	0.50-10.42	1.46	1.18-1.81
Primary School	1.64	0.75-3.58	2.00	1.73-2.32
High School	1.21	0.58-2.53	2.42	2.21-2.77
Technical level	1.44	0.61-3.39	1.79	1.54-2.08
University level	1.00	-	1.00	(signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	1.21	0.42-3.54	3.03	2.50-3.68
Quintile 2	3.62	1.17-11.15	3.61	2.91-4.49
Quintile 3	2.01	0.55-7.27	2.68	2.21-3.26
Quintile 4	3.86	1.69-8.81	1.98	1.69-2.34
Quintile 5 (wealthiest)	1.00	(not signif. trend)	1.00	(signif. trend)
Unemployed status (yes=1)	1.25	0.44-3.49	1.51	1.29-1.77

**Table A8.5** Partially adjusted Relative Rate Ratio (RRR) of being entitled to a particular health care provision type in Chile by SES cluster (adjusted by demographics) in the International Immigrant Population (IIP), CASEN, 2006 (weighted sample size= 154 431) (statistical significant values appear in grey shade in the table)

Social determinants	Provision type in the International Immigrant population	
	RRR	95% CI
<b><i>PUBLIC FREE OF CHARGE</i></b> (no health care provision as baseline)		
Sex (female=1)	1.57	1.004-2.48
Age	1.002	0.98-1.01
Zone: (rural=1)	3.69	1.77-7.70
Ethnicity: any	3.30	0.70-15.57
SES cluster:		
Low	8.85	3.70-21.13
Medium	2.91	1.66-5.08
High	1.00	(signif. trend)
<b><i>PUBLIC WITH CO-PAYMENT</i></b> (no health care provision as baseline)		
Sex (female=1)	1.67	1.15-2.42
Age	1.002	0.99-1.01
Zone: (rural=1)	1.87	1.02-3.43
Ethnicity: any	1.55	0.38-6.30
SES cluster:		
Low	3.10	1.33-7.21
Medium	2.44	1.57-3.79
High	1.00	(signif. trend)
<b><i>PRIVATE</i></b> (no health care provision as baseline)		
Sex (female=1)	2.52	0.46-13.60
Age	1.07	1.02-1.13
Zone: (rural=1)	0.44	0.03-5.25
Ethnicity: any	0.38	0.07-0.92

SES cluster:		
Low	0.32	0.04-0.92
Medium	1.64	0.31-8.45
High	1.00	(no signif. trend)
<b><i>OTHER NOT STATED</i></b> (no health care provision as baseline)		
Sex (female=1)	0.93	0.59-1.47
Age	1.002	0.98-1.01
Zone: (rural=1)	2.87	1.27-6.49
Ethnicity: any	3.05	0.88-10.49
SES cluster:		
Low	1.42	0.54-3.75
Medium	1.62	0.91-2.87
High	1.00	-

**Table A8.6** Partially adjusted Relative Rate Ratio (RRR) (by material living standards) of being entitled to a particular health care provision type in Chile, a comparison between the International Immigrant Population (IIP) and the Chilean-born, CASEN, 2006 (weighted sample size 154 314 and 16 130 743, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Provision type in the International Immigrant population		Provision type among the Chilean-born	
	RRR	95% CI	RRR	95% CI
<b><i>PUBLIC FREE OF CHARGE</i></b> (no health care provision as baseline)				
Sex (female=1)	1.38	0.85-2.26	1.05	1.004-1.10
Age	1.01	0.99-1.03	1.02	1.02-1.03
Zone: (rural=1)	1.12	0.36-3.53	1.77	1.52-2.05
Ethnicity: any	1.07	0.20-5.65	2.48	2.04-3.00
Sanitary Index	13.71	0.39-41.21	7.15	3.00-17.20
Material Index	0.03	0.006-1.59	0.20	0.001-0.41
CMI	0.03	0.003-0.35	0.49	0.09-3.62
HAI	1.25	1.02-6.83	0.58	0.09-3.28
Overcrowding Townsend criteria	0.04	0.009-2.62	0.79	0.03-2.92
<b><i>PUBLIC WITH CO-PAYMENT</i></b> (no health care provision as baseline)				
Sex (female=1)	1.57	1.06-2.31	0.96	0.92-1.01
Age	1.01	0.99-1.02	1.02	1.02-1.02
Zone: (rural=1)	1.49	0.58-3.83	1.49	1.29-1.73
Ethnicity: any	0.64	0.14-2.87	1.69	1.39-2.04
Sanitary Index	1.70	0.03-2.87	14.20	6.49-31.52
Material Index	1.04	0.05-21.13	0.02	0.01-0.03
CMI	0.01	0.001-1.76	0.20	0.01-3.35
HAI	5.61	0.79-11.76	7.42	0.17-3.13
Overcrowding Townsend criteria	1.46	0.08-26.50	0.005	0.002-0.01
<b><i>PRIVATE</i></b> (no health care provision as baseline)				

Sex (female=1)	2.20	0.50-9.61	0.98	0.90-1.07
Age	1.06	1.01-1.10	1.02	1.01-1.02
Zone: (rural=1)	0.37	0.02-5.73	0.76	0.54-1.06
Ethnicity: any	-	-	0.99	0.66-1.46
Sanitary Index	-	-	11.02	2.23-54.48
Material Index	-	-	0.04	0.01-0.14
CMI	-	-	0.40	0.01-0.94
HAI	-	-	1.58	0.80-3.11
Overcrowding Townsend criteria	-	-	0.01	0.001-0.05
<b><i>OTHER NOT STATED</i></b> (no health care provision as baseline)				
Sex (female=1)	0.82	0.47-1.44	0.57	0.52-0.61
Age	1.01	0.99-1.02	1.02	1.01-1.02
Zone: (rural=1)	1.04	0.24-4.41	1.41	1.19-1.67
Ethnicity: any	1.35	0.35-5.28	1.58	1.24-2.02
Sanitary Index	0.36	0.001-8.35	2.90	0.84-10.02
Material Index	1.46	0.04-4.44	0.50	0.19-1.32
CMI	0.49	0.06-4.01	0.02	0.005-0.80
HAI	1.85	0.41-8.30	3.56	1.98-13.20
Overcrowding Townsend criteria	2.74	0.08-8.60	0.36	0.09-1.34

**Table A8.7** Adjusted Odds Ratio (OR) (by socio-demographics) of *access to Pap smear programme* in Chile, a comparison between the total Chilean population and the International Immigrant Population (IIP), CASEN, 2006 (weighted sample size 154 314 and 16 130 743, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Access to Pap smear in the total Chilean Population		Access to Pap smear in the International Immigrant population	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.01	1.007-1.01	1.01	0.97-1.06
Marital status:				
Single	1.00	(signif. trend)	1.00	(no signif. trend)
Married	2.35	2.12-2.60	4.71	1.81-12.26
Divorced	1.77	1.53-2.05	1.94	0.45-8.35
Widow	1.07	0.82-1.40	0.45	0.02-8.82
Ethnicity: any	1.43	0.72-2.84	3.70	0.38-35.27
Type of ethnicity:				
Aymara	1.00	-	1.00	-
Atacameño	0.70	0.19-2.52	-	-
Mapuche	0.63	0.31-1.30	0.40	0.02-7.98
Others	0.44	0.13-1.50	-	-
Zone:				
Rural=1	1.07	0.93-1.23	4.35	0.80-23.56
Area:				
Northern	1.00	-	1.00	-
Central	1.14	0.98-1.33	1.73	0.45-6.57
Southern	1.14	0.96-1.34	0.68	0.13-3.52
Number of household members:				
One member	1.00	-	1.00	-
2 to 4 members	0.92	0.67-1.27	0.90	0.17-4.80

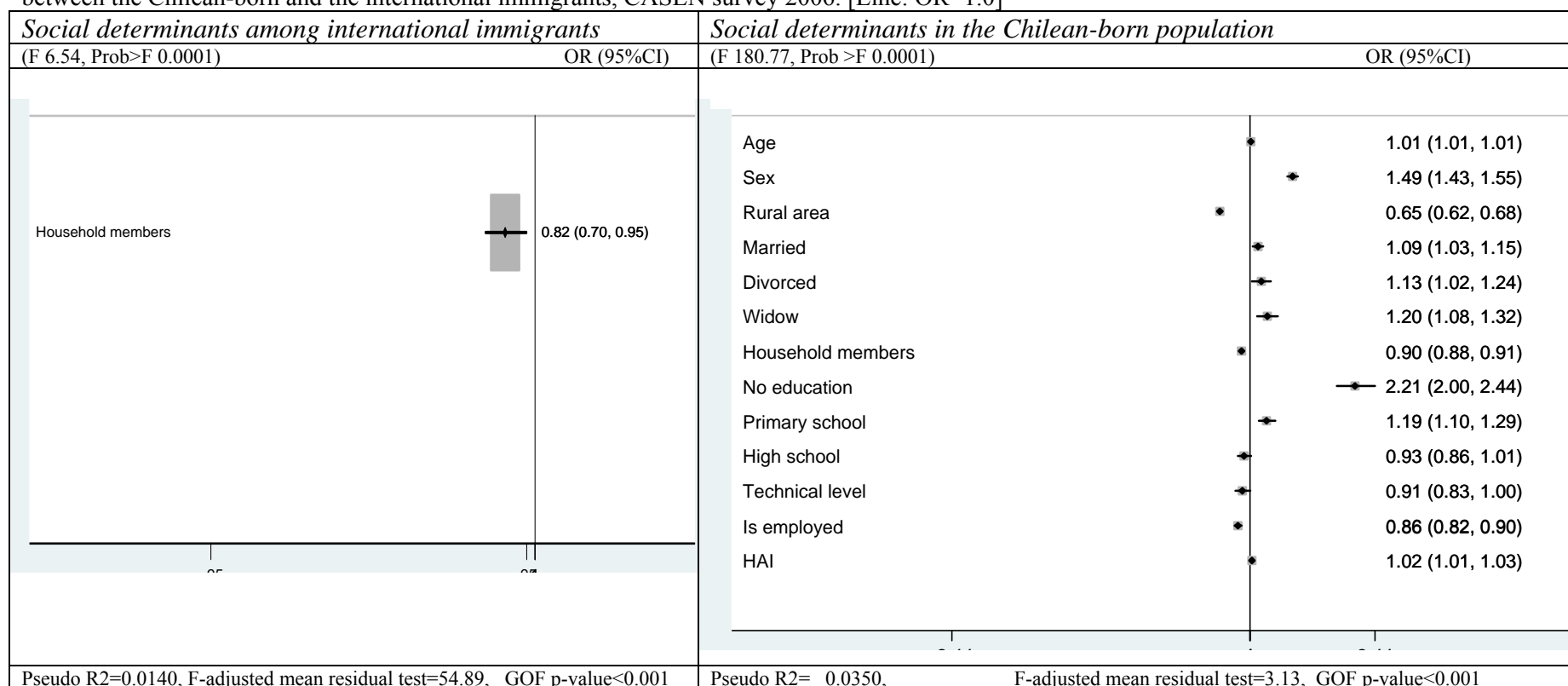
5 to 7 members	0.85	0.61-1.18	0.47	0.08-2.46
8 or more members	0.73	0.50-1.07	0.72	0.09-5.86
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	0.47	0.29-0.75	0.48	0.05-4.38
Primary School	0.92	0.77-1.09	0.37	0.11-1.21
High School	0.88	0.76-1.01	0.34	0.11-1.08
Technical level	0.93	0.80-1.07	1.89	0.44-8.03
University level	1.00	(no signif. trend)	1.00	-
Household income, per capita:				
Quintile 1 (poorest)	1.18	0.97-1.44	0.47	0.08-2.71
Quintile 2	1.09	0.93-1.27	0.54	0.12-2.71
Quintile 3	1.00	0.87-1.14	1.75	0.47-6.56
Quintile 4	0.87	0.77-0.98	0.87	0.35-2.16
Quintile 5 (wealthiest)	1.00	-	1.00	-
Current worker	1.009	0.78-1.30	4.59	0.51-41.12
Type of occupation:				
Head/ manager	1.00	(no signif. trend)	1.00	-
Employee private system	-	-	-	-
Self employed	-	-	-	-
Employee public system	1.45	1.23-1.72	1.02	0.21-4.95
Employee domestic service	1.12	0.99-1.27	1.11	0.48-2.54
Unemployed:				
Found a job and starts soon	1.00	(no signif. trend)	1.00	(no signif. trend)
Doesn't want to work	1.19	0.83-1.71	0.05	0.006-30.48
Can't find a job	1.10	0.79-1.54	0.22	0.006-7.87
Has an intermittent informal job	1.66	1.07-2.57	0.01	0.003-0.69
Other reason, not stated	0.87	0.62-1.23	0.06	0.001-2.06

Inactive:				
Student	0.19	0.13-0.27	0.007	0.0002-0.29
Housewife	1.57	1.14-2.17	0.18	0.006-5.24
Retired	0.82	0.58-1.54	0.03	0.001-1.25
Ill	1.00	(signif. trend)	1.00	(no signif. trend)
Has a contract	1.06	0.94-1.18	0.71	0.29-1.73
Type of contract: Temporary	1.003	0.90-1.10	0.37	0.16-0.87
Workday dedication: Full time	0.99	0.89-1.11	0.41	0.10-1.63
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	(no signif. trend)	1.00	(signif. trend)
Sub-standard	1.02	0.92-1.13	0.34	0.12-0.99
Unfit	1.70	1.11-2.60	0.01	0.001-0.84
Sanitary Index (deficient=0)	0.97	0.83-1.12	0.37	0.07-2.02
Overcrowded household (Townsend):	1.08	0.96-1.21	0.86	0.34-2.14
Household assets:				
Car	1.00	0.84-1.19	0.59	0.08-4.38
Washing machine	1.10	0.97-1.23	0.67	0.14-3.22
Fridge	1.57	1.40-1.76	2.91	0.73-11.58
Water heater	1.01	0.89-1.15	0.95	0.22-4.06
Landline phone	0.95	0.84-1.07	1.41	0.26-7.50
Cable TV	0.92	0.79-1.07	2.16	0.58-8.01
Computer	1.20	1.01-1.42	1.44	0.22-9.34
Internet	0.93	0.74-1.17	0.42	0.04-4.34
Mobile phone	1.31	1.25-1.38	1.25	0.76-2.05
HAI	1.02	1.01-1.03	1.10	0.96-1.25
CMI	1.02	1.01-1.03	1.10	0.96-1.25
<b>MIGRATION STATUS:</b>				
International immigrant (any)	0.95	0.75-1.20	-	-
International immigrant (missing values)	0.48	0.33-0.70	-	-
Years living in the country:				

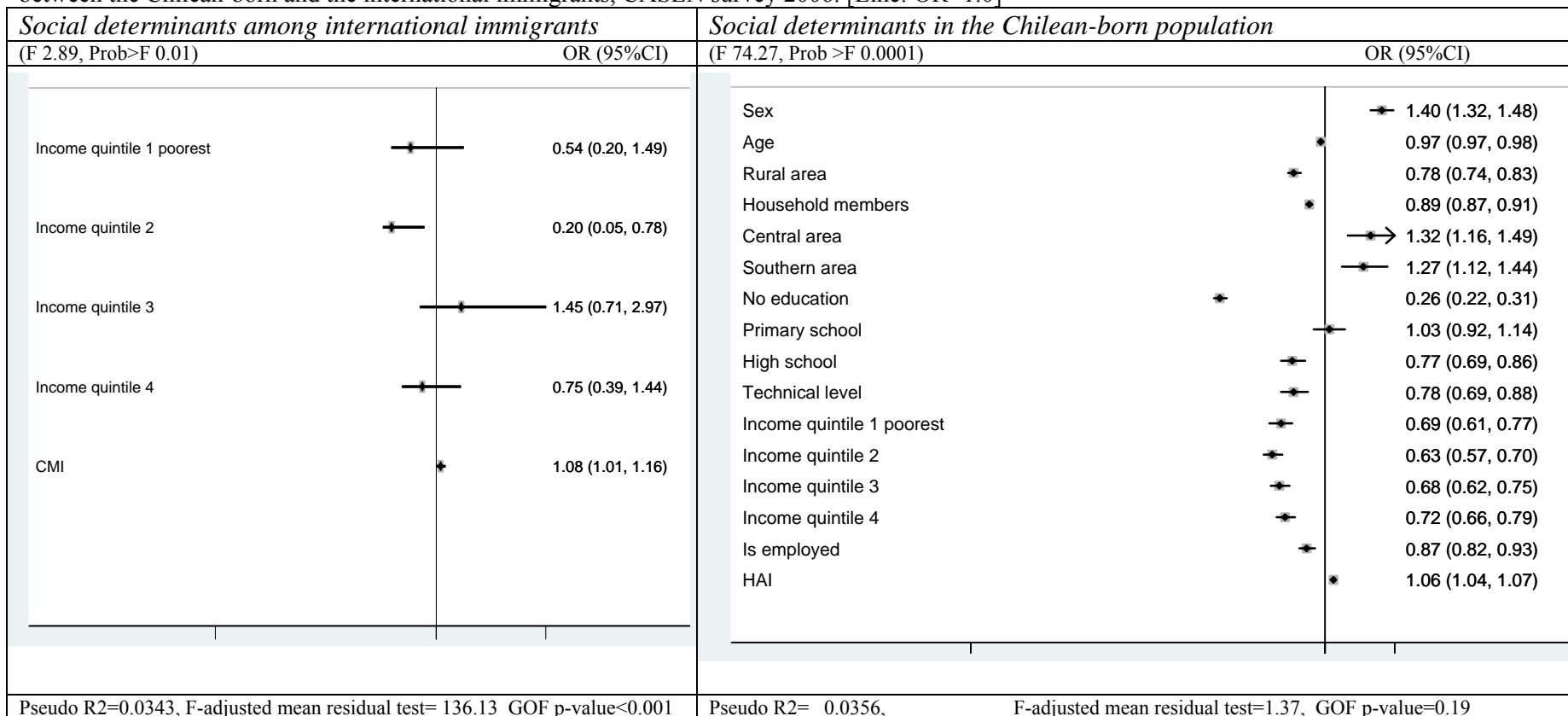


Less than a year	-	-	1.00	(no signif. trend)
1 to 5 years	-	-	1.32	0.64-2.69
6 to 10 years	-	-	2.14	1.16-3.96
11 to 15 years	-	-	2.37	1.02-5.52
16 to 20 years	-	-	1.48	0.52-4.19
21 or more years	-	-	1.26	0.62-2.58
Country of origin:				
Peru	-	-	0.99	0.49-2.03
Argentina	-	-	0.68	0.31-1.47
Bolivia	-	-	0.42	0.10-1.66
Ecuador	-	-	1.65	0.46-5.38
Internal migrant (any):	1.08	1.02-1.13	-	-
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

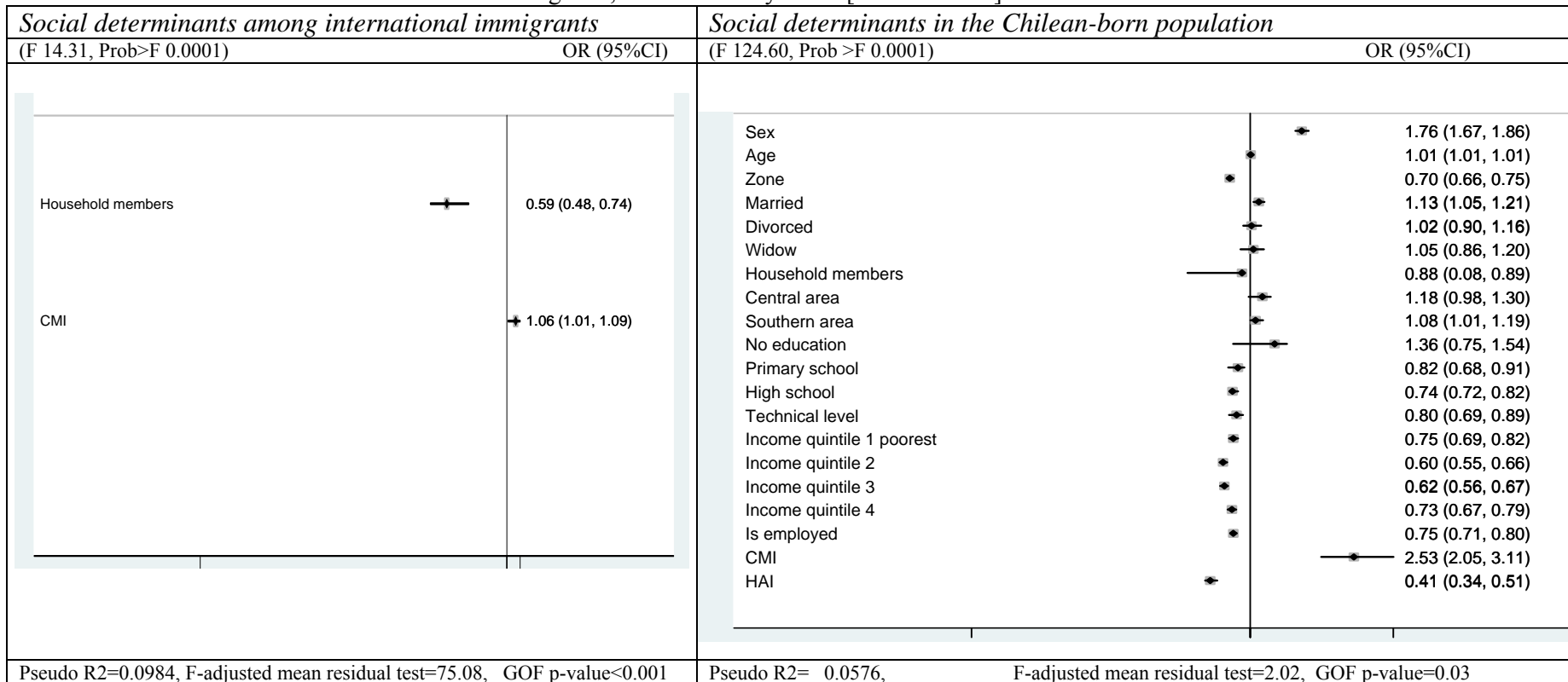
**Figure A8.1** Final adjusted models for having received **any mental** care attention in the past three months (multiple logistic regression), a comparison between the Chilean-born and the international immigrants, CASEN survey 2006. [Line: OR=1.0]



**Figure A8.2** Final adjusted models for having received **any dental** care attention in the past three months (multiple logistic regression), a comparison between the Chilean-born and the international immigrants, CASEN survey 2006. [Line: OR=1.0]



**Figure A8.3** Final adjusted models for having received **any specialist** care attention in the past three months (multiple logistic regression), a comparison between the Chilean-born and the international immigrants, CASEN survey 2006. [Line: OR=1.0]



## **APPENDIX 9**

### **TABLES AND GOODNESS OF FIT (GOF) TESTS FROM CHAPTER 9**

## APPENDIX 9-1 TABLES FROM CHAPTER 9

**Table A9.1** Prevalence of **any health problem/accident (AHPA), medical and emergency care in the last month** in the Chilean-born population and the IIP in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 314, respectively)

Dimensions	Chilean-born population		International immigrant population living in Chile	
	% or mean	95% CI	% or mean	95% CI
Any health problem/ accident: <sup>b</sup>	15.72	15.41-16.03	10.80	8.70-13.32
And asked for medical care	82.49	81.65-83.31	78.75	69.76-85.62
Mean number of medical attentions in the last month	X=2.11	2.06-2.15	X=2.24	1.81-2.66
Number of medical attentions in the last month, categories: <sup>a</sup>				
One	56.68	55.68-57.66	59.75	48.89-69.74
Two	17.60	16.91-18.31	16.71	9.66-27.36
Three	13.59	12.99-14.20	8.23	4.86-13.59
Four or more	12.14	11.51-12.81	15.31	9.53-23.67
Mean number of emergency attentions in the last month	X= 1.62	1.58-1.66	X=1.13	1.02-1.25
Number of emergency attentions in the last month, categories: <sup>a</sup>				
One <sup>b</sup>	73.08	71.92-74.20	92.76	85.04-96.66
Two <sup>b</sup>	13.97	13.13-14.85	3.36	1.07-10.01
Three <sup>b</sup>	6.30	5.77-6.89	2.01	0.56-6.94
Four or more <sup>b</sup>	6.65	6.07-7.29	1.87	0.36-9.03

<sup>a</sup> p<0.0001 when comparing categories within the same variable for the immigrant or the Chilean-born population

<sup>b</sup> p<0.0001 when comparing the total Chilean population with the international immigrant population

**Table A9.2** Prevalence of **any health problem/accident (AHPA), medical and emergency care in the last month** of the international immigrant population, stratified by country of origin and years living in the country, CASEN survey 2006 (weighted population size included: 154 431)

Country of origin	Any health problem/ accident		Mean number of medical attention received		Mean number of emergency attention received	
	%	95%CI	Mean	95% CI	Mean	95% CI
Peru	11.11	7.89-15.43	2.18	1.47-2.90	1.29	0.91-1.67
Argentina	13.21	9.38-18.28	1.98	1.28-2.68	1.08	0.98-1.17
Bolivia	8.43	3.59-18.53	2.23	0.08-4.54	0	-
Ecuador	9.00	2.05-31.84	1.78	0.46-3.11	0	-
Years living in the country	Any health problem or accident		Mean medical attention received		Mean emergency attention received	
	%	95%CI	Mean	95% CI	Mean	95% CI
Less than a year	10.56	6.84-15.96	1.81	1.28-2.34	1.12	0.96-1.28
1 to 5 years	7.97	4.44-13.90	2.01	1.16-2.85	1.13	0.91-1.35
6 to 10 years	9.66	6.02-15.16	2.37	1.15-3.60	1.37	0.81-1.93
11 to 15 years	4.70	1.67-12.54	1.99	0.60-3.39	0	-
16 to 20 years	11.08	5.37-21.46	2.80	1.08-4.53	0	-
21 or more years	18.43	12.51-26.32	2.54	1.51-3.56	1.06	0.97-1.14

**Table A9.3** Adjusted Odds Ratio (OR) (by socio-demographic variables) of presenting **any health problem/accident (AHPA)** in Chile, a comparison between the Chilean-born population and the IIP, CASEN, 2006 (weighted sample size 16 130 743 and 154 431, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Chilean-born population		International Immigrants	
	OR	95% CI	OR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	1.01	1.001-1.01	1.02	0.96-1.06
Sex (female=1)	1.67	1.52-1.85	2.10	0.84-5.22
Marital status:				
Single	1.00	(signif. trend)	1.00	-
Married	1.28	1.15-1.43	2.05	0.82-5.13
Divorced	1.31	1.12-1.53	3.84	0.86-17.00
Widow	1.40	1.06-1.85	0.61	0.04-8.52
Ethnicity: any	1.68	0.99-2.85	0.60	0.06-5.59
Type of ethnicity:				
Aymara	1.00	-	1.00	(no signif. trend)
Atacameño	0.71	0.25-1.98	0.05	0.003-0.86
Mapuche	0.64	0.37-1.12	0.97	0.12-7.51
Others	0.43	0.13-1.41	-	-
Zone:				
Rural	0.74	0.65-0.83	1.96	0.42-9.08
Area:				
Northern	1.00	-	1.00	-
Central	0.97	0.84-1.11	1.35	0.44-4.18
Southern	1.17	0.01-1.35	0.44	0.06-2.99
Number of household members:				
One member	1.00	(signif. trend)	1.00	-
2 to 4 members	0.54	0.43-0.68	0.30	0.03-3.02
5 to 7 members	0.47	0.37-0.61	0.46	0.04-5.46
8 or more members	0.43	0.31-0.59	0.63	0.03-12.11



<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	1.21	0.86-1.69	0.10	0.002-4.73
Primary School	1.08	0.92-1.28	0.78	0.21-2.80
High School <sup>b</sup>	1.03	0.89-1.19	1.006	0.33-2.98
Technical level	1.09	0.94-1.27	0.50	0.10-2.45
University level	1.00	-	1.00	-
Household income, per capita:				
Quintile 1 (poorest)	1.07	0.89-1.28	0.95	0.13-6.76
Quintile 2	1.08	0.93-1.25	0.12	0.01-1.28
Quintile 3	1.001	0.87-1.14	3.95	0.30-11.97
Quintile 4	1.02	0.91-1.16	2.63	1.79-4.69
Quintile 5 (wealthiest)	1.00	-	1.00	(no signif. trend)
Current worker	0.31	0.26-0.38	0.13	0.03-0.52
Type of occupation:				
Head/ manager	1.00	(no signif. trend)	1.00	(no signif. trend)
Employee private system	-	-	-	-
Self employed	1.23	1.02-1.48	-	-
Employee public system	1.14	0.98-1.33	15.31	1.30-180.21
Employee domestic service	-	-	9.45	0.85-104.50

Unemployed:				
Found a job and starts soon	1.00	-	1.00	(signif. trend)
Doesn't want to work	1.01	0.64-1.60	1.40	1.04-5.73
Can't find a job	1.05	0.68-1.62	1.60	1.04-2.40
Has an intermittent informal job	0.85	0.51-1.40	-	-
Other reason, not stated	1.34	0.86-2.08	1.58	1.06-3.77
Inactive:				
Student	1.00	(no signif. trend)	1.00	(signif. trend)
Housewife	0.88	0.58-1.35	7.84	1.39-15.70
Retired	1.17	0.76-1.80	1.20	1.03-3.17
Ill	2.95	1.93-4.52	2.00	1.50-7.92
Has a contract	0.95	0.84-1.06	0.92	0.32-2.65
Type of contract: Temporary	1.03	0.94-1.13	2.58	1.10-6.03
Workday dedication: Full time	0.83	0.73-0.94	2.15	0.36-12.68
<b>MATERIAL SOCIOECONOMIC DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	1.04	0.95-1.15	1.98	0.89-4.40
Unfit	1.20	0.83-1.71	6.07	0.50-73.08
Sanitary Index (deficient=0)	1.14	1.01-1.30	4.18	0.89-19.63
Overcrowded household (Townsend):	0.93	0.83-1.04	0.97	0.37-2.50
HAI	1.02	1.007-1.03	1.09	0.95-1.26
CMI	1.004	0.99-1.01	1.02	0.93-1.11
<b>ACCESS TO HEALTH:</b>				
Type of provision:				
Private	1.00	-	1.00	(signif. trend)
Public 100% free	0.89	0.61-1.19	7.46	1.14-4.88
Public with some co-payment	0.96	0.73-1.28	9.34	1.99-43.82
None/don't know	0.93	0.70-1.24	17.60	3.64-84.90
Other	0.75	0.45-1.24	-	-

Use of cervical cancer screening service	1.02	0.93-1.12	2.06	0.50-8.54
Number of preventive health care attentions received, categories:				
1 or 2 health controls	1.00	(signif. trend)	1.00	(signif. trend)
3 or 4 health controls	1.24	1.08-1.43	29.91	1.69-52.80
5 or 6 health controls	1.83	1.31-2.57	68.43	2.72-172.00
7 or more health controls	1.95	1.04-3.65	66.63	1.47-275.36
Type of preventive health care:				
Well baby care	1.00	(signif. trend)	1.00	(no signif. trend)
Antenatal care	0.33	0.17-0.62	0.10	0.008-1.30
Gynaecologic control	0.61	0.34-1.09	0.85	0.14-5.10
Chronic disease control	0.41	0.23-0.75	0.41	0.05-3.19
Preventive adult and elderly	0.45	0.25-0.82	-	-
Other control attention	0.69	0.38-1.25	2.18	0.34-13.80

<b>MIGRATION STATUS (in the total Chilean population):</b>				
International immigrant (any)	0.71	0.56-0.91	-	-
International immigrant (missing values)	0.91	0.70-1.19	-	-
Years living in the country:				
Less than a year	-	-	1.00	-
1 to 5 years	-	-	0.88	0.37-1.75
6 to 10 years	-	-	1.005	0.53-1.89
11 to 15 years	-	-	0.41	0.13-1.31
16 to 20 years	-	-	0.99	0.37-2.64
21 or more years	-	-	1.33	0.66-2.68
Country of origin:				
Peru	-	-	1.11	0.56-2.16
Argentina	-	-	1.60	0.84-3.04
Bolivia	-	-	0.74	0.14-3.76
Ecuador	-	-	1.09	0.20-5.88
Internal migrant (any):	1.09	1.04-1.14	-	-
<b>MULTIPLICATIVE INTERACTIONS:</b>				
Interaction age*zone (rural=1)	1.01	1.004-1.016	-	-
Interaction being employed*HAI	0.80	0.74-0.86	-	-

**Table A9.4** Odds Ratio (OR) of presenting any health problem or accident in the **international immigrant population by age groups**, adjusted by demographics. CASEN survey, 2006 (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.92	0.83-	1.05	1.01	0.99-	1.04	1.01	0.90-	1.10
Sex (female=1)	1.08	0.41-	2.80	1.87	1.08-	3.24	0.29	0.02-	1.82
Marital status:									
Single	1.00	-		1.00	-		1.00	-	
Married	-	-		1.05	0.56-	1.96	0.30	0.02-	3.27
Divorced	-	-		2.48	0.88-	6.96	0.10	0.004-	2.22
Widow	-	-		2.57	0.55-	11.96	0.41	0.02-	7.00
Ethnicity: any	6.41	0.77-	53.33	0.44	0.15-	1.23	0.89	0.06-	12.00
Zone: Rural=1	0.31	0.02-	3.82	1.09	0.56-	2.14	1.14	0.31-	4.11
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	0.78	0.15-	3.87	0.82	0.36-	1.86	0.50	0.05-	4.51
Southern	2.68	0.55-	12.47	0.68	0.23-	2.00	1.02	0.06-	15.40
Number of household members	0.93	0.57-	1.52	0.94	0.78-	1.12	0.99	0.64-	1.21
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		0.96	0.19-	4.71	12.50	1.72-	31.48
Primary School	-	-		0.64	0.24-	1.64	4.03	0.43-	37.65
High School	-	-		1.07	0.50-	2.30	4.68	1.08-	68.60
Technical level	-	-		1.07	0.45-	2.51	1.47	0.04-	50.21
University level	1.00	-		1.00	-		1.00	(not signif. trend)	

Household income:									
Quintile 1 (poorest)	0.46	0.04-	4.35	1.66	0.65-	4.23	2.60	0.40-	16.69
Quintile 2	0.93	0.17-	5.00	0.41	0.10-	1.61	8.88	1.13-	14.21
Quintile 3	0.90	0.13-	5.85	1.23	0.56-	2.69	0.15	0.01-	1.48
Quintile 4	0.80	0.12-	5.11	2.33	1.21-	4.49	5.49	0.56-	53.11
Quintile 5 (wealthiest)	1.00	-		1.00	(not signif. trend)		1.00	(not signif. trend)	
Unemployed	-	-		0.40	0.11-	1.36	2.73	0.47-	15.84
Job dedication: full time	-	-		1.94	0.92-	6.23	-	-	
Has a contract	-	-		0.68	0.06-	1.55	-	-	
Temporary work	-	-		2.18	0.97-	4.90	-	-	
Low SES cluster	6.56	1.16-	38.65	0.89	0.09-	2.06	12.06	1.57-	92.57
Medium SES cluster	2.14-	1.14-	11.07	1.14	0.06-	2.04	8.14	1.56-	42.50
High SES cluster	1.00	-	Signif trend	1.00	-	Not sign trend	1.00	-	Signif trend
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	0.23	0.01-	1.12	2.75	0.02-	13.12	0.70	0.01-	39.88
Unfit	2.80	0.21-	37.09	17.20	0.02-	21.33	0.50	0.09-	28.41
Sanitary Index (deficient=0)	0.46	0.06-	3.46	2.08	0.02-	19.54	1.19	0.08-	11.71
Overcrowded household (Townsend):	1.16	0.09-	6.81	1.80	0.10-	2.93	0.40	0.05-	3.38
HAI	-	-		0.80	0.01-	32.14	2.39	0.70-	7.82
CMI	0.64	0.05-	7.84	12.12	0.06-	62.54	0.18	0.07-	1.89
<b>MIGRATION-RELATED DETERMINANTS:</b>									
Years living in the country:									
Less than a year	1.00	-		1.00	-		1.00	(signif. trend)	
1 to 5 years	3.94	0.40-	38.74	0.70	0.31-	1.57	-	-	
6 to 10 years	11.05	0.80-	51.14	0.76	0.37-	1.54	0.36	0.10-	16.63
11 to 15 years	13.68	0.35-	53.21	0.45	0.12-	1.64	0.01	0.004-	0.36
16 to 20 years	-	-		1.17	0.43-	3.16	0.05	0.004-	0.56
21 or more years	-	-		1.59	0.69-	3.69	0.25	0.02-	2.37
Country of origin:									

Peru	2.00	0.23-	16.25	1.99	0.89-	4.40	-	-	
Argentina	1.87	0.31-	11.09	1.60	0.69-	3.68	6.08	0.67-	55.16
Bolivia	0.08	0.007-	0.91	1.40	0.41-	4.76	0.28	0.03-	2.08
Ecuador	5.92	0.58-	59.66	1.29	0.26-	6.39	-	-	

**Table A9.5** Odds Ratio (OR) of presenting any health problem or accident in the **Chilean-born by age groups**, adjusted by demographics. CASEN survey, 2006 (weighted sample size 16 130 743) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.93	0.92-	0.98	1.02	1.01-	1.03	1.01	1.007	1.02
Sex (female=1)	0.95	0.88-	1.05	1.60	1.53-	1.68	1.50	1.30-	1.64
Marital status:									
Single	1.00	-		1.00	(signif. trend)		1.00	-	
Married	-	-		1.10	1.03-	1.17	1.14	0.95-	1.36
Divorced	-	-		1.18	1.07-	1.31	0.97	0.74-	1.25
Widow	-	-		1.42	1.22-	1.64	1.08	0.90-	1.30
Ethnicity: any	1.22	1.04-	1.43	1.14	1.04-	1.16	1.28	1.04-	1.57
Zone: Rural=1	0.62	0.57-	0.74	0.71	0.68-	0.75	0.80	0.73-	0.86
Area:									
Northern	1.00	(signif. trend)		1.00	-		1.00	-	
Central	1.02	0.88-	1.18	0.92	0.84-	1.01	0.87	0.73-	1.04
Southern	1.27	1.09-	1.49	1.16	1.05-	1.27	1.10	0.91-	1.31
Number of household members	0.91	0.89-	0.94	0.91	0.90-	0.93	0.90	0.88-	0.93
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		1.07	0.76-	1.50	1.73	0.42-	6.99
Primary School	-	-		0.97	0.84-	1.13	1.93	0.63-	5.93
High School	-	-		0.96	0.87-	1.10	1.35	0.42-	4.32
Technical level	-	-		1.04	0.90-	1.21	3.31	0.38-	28.83
University level	1.00	-		1.00	-		1.00	-	
Household income:									
Quintile 1 (poorest)	0.94	0.80-	1.24	0.97	0.81-	1.16	1.31	0.50-	3.40



Quintile 2	0.82	0.71-	0.95	0.98	0.86-	1.13	0.44	0.19-	1.03
Quintile 3	0.92	0.80-	1.05	0.89	0.78-	1.01	0.76	0.33-	1.74
Quintile 4	1.01	0.87-	1.16	0.95	0.85-	1.07	0.92	0.45-	1.85
Quintile 5 (wealthiest)	1.00	-		1.00	-		1.00	-	
Unemployed	-	-		0.93	0.85-	1.02	0.98	0.84-	1.15
Job dedication: full time	-	-		1.04	0.95-	1.14	0.93	0.50-	1.71
Has a contract	-	-		0.97	0.87-	1.08	0.64	0.35-	1.19
Temporary work	-	-		0.79	0.70-	0.89	1.17	0.64-	2.13
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	-	-		1.70	0.95-	3.04	2.76	0.84-	9.02
Unfit	-	-		2.60	0.80-	8.39	8.30	0.76-	89.90
Sanitary Index (deficient=0)	-	-		0.59	0.27-	1.26	0.26	0.05-	1.24
Overcrowded household (Townsend):	-	-		1.53	0.68-	3.43	2.72	0.52-	14.18
HAI	-	-		0.08	0.002-	3.25	0.03	0.002-	5.47
CMI	-	-		1.89	0.30-	4.65	3.30	0.17-	6.16

**Figure A9.1** Final model of **any health problem or accident in the past month** (multiple logistic regression) in the total population in Chile and excluding other health events as independent variables, CASEN survey 2006 (statistical significant values appear in grey shade in the table)

Social determinants	Any health problem or accident Total population in Chile	
	OR	95% CI
Age	0.96	0.96-0.97
Age2	1.001	1.0001-1.002
Zone (rural=1)	0.66	0.60-0.92
Number of household members	0.91	0.89-0.92
Marital status:		
Single	1.00	(significant trend)
Married	1.35	1.26-1.44
Divorced	1.56	1.41-1.71
Widow	1.02	0.41-2.52
HAI	0.97	0.96-0.98
Being an immigrant	0.63	0.49-0.80
Interaction zone*age	1.003	1.001-1.004

**Table A9.6** Adjusted Incidence Rate Ratio (IRR) (by socio-demographic variables) of the **number of medical care received in the past month** in Chile (Zero-inflated negative binomial regression), a comparison between the Chilean-born population and the immigrant Population, CASEN, 2006 (weighted sample size 16 130 743 and 154 431, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Chilean-born population		International Immigrants	
	IRR	95% CI	IRR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	1.006	1.005-1.07	1.01	1.005-1.02
Sex (female=1)	1.18	1.14-1.22	0.98	0.45-2.11
Marital status:				
Single	1.00	-	1.00	-
Married	1.19	1.08-1.32	1.14	0.84-1.55
Divorced	0.98	0.89-1.07	0.89	0.54-1.49
Widow	1.68	0.67-4.19	1.007	0.57-1.77
Ethnicity: any	0.91	0.86-0.97	0.86	0.59-1.25
Zone:				
Rural=1	0.77	0.74-0.80	0.67	0.49-0.91
Area:				
Northern	1.00	-	1.00	-
Central	0.98	0.92-1.03	1.93	0.92-4.04
Southern	0.97	0.92-1.03	1.31	0.68-2.52
Number of household members:				
One member	1.00	(signif. trend)	1.00	-
2 to 4 members	1.07	1.03-1.11	1.12	0.79-1.58
5 to 7 members	1.11	1.07-1.16	1.09	0.73-1.61
8 or more members	1.17	1.11-1.26	0.95	0.46-1.97

<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	2.05	1.87-2.24	0.39	0.02-7.22
Primary School	2.77	2.50-3.06	1.57	0.17-14.55
High School	1.18	1.09-1.28	0.44	0.12-1.62
Technical level	1.26	1.14-1.39	0.36	0.05-2.39
University level	1.00	(signif. trend)	1.00	-
Household income, per capita (continuous variable)	1.01	0.89-1.02	0.99	0.99-1.01
Current worker	0.63	0.58-0.67	0.80	0.42-1.62
Type of occupation:				
Head/ manager	1.00	-	1.00	-
Employee private system	0.97	0.90-1.05	0.69	0.20-2.33
Self employed	-	-	-	-
Employee public system	-	-	-	-
Employee domestic service	0.99	0.92-1.16	1.18	0.55-2.51
Unemployed	1.05	1.01-1.09	1.07	0.71-1.61
Has a contract	0.97	0.92-1.01	1.01	0.56-1.82
Type of contract: Temporary	1.003	0.96-1.04	1.39	0.85-2.27
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	0.92	0.61-1.38	0.85	0.66-1.10
Unfit	0.74	0.32-1.69	0.61	0.37-1.01
Sanitary Index (deficient=0)	1.22	0.71-2.07	1.32	0.54-3.21
Overcrowded household (Townsend):	0.92	0.52-1.62	0.86	0.36-2.00
HAI	1.81	0.14-23.22	0.33	0.02-4.25
CMI	0.53	0.04-7.17	3.16	0.22-4.62
<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	-	1.00	-
Public 100% free	1.09	0.82-1.44	0.87	0.26-2.90

Public with some co-payment	1.12	0.85-1.47	0.39	0.06-2.40
None/don't know	0.93	0.69-1.26	0.89	0.08-9.78
Other	1.21	0.87-1.68	0.68	0.18-2.56
Use of cervical cancer screening service	1.12	1.05-1.18	1.31	0.68-2.54
Number of preventive health care attentions (count)	1.25	1.23-1.27	1.25	0.81-1.92
<b>MIGRATION STATUS (in the total Chilean population):</b>				
International immigrant (any)	1.05	0.92-1.26	-	-
International immigrant (missing values)	1.29	0.99-1.68	-	-
Years living in the country:				
Less than a year	-	-	1.00	-
1 to 5 years	-	-	1.005	0.62-1.61
6 to 10 years	-	-	1.23	0.69-2.22
11 to 15 years	-	-	1.02	0.54-1.92
16 to 20 years	-	-	1.27	0.67-2.41
21 or more years	-	-	0.88	0.48-1.62
Country of origin:				
Peru	-	-	1.004	0.76-1.43
Argentina	-	-	0.92	0.65-1.30
Bolivia	-	-	1.07	0.41-2.84
Ecuador	-	-	0.84	0.53-1.34
Internal migrant (any):	1.09	1.04-1.14	-	-
<b>MULTIPLICATIVE INTERACTION EFFECTS: no interactions found</b>				

**Table A9.7** Adjusted Incidence Rate Ratio (IRR) (by socio-demographic variables) of the **number of emergency care attentions received in the past month** in Chile (Zero-inflated negative binomial regression), a comparison between the Chilean-born population and the IIP, CASEN, 2006 (weighted sample size 16 130 743 and 154 431, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Chilean-born population		International Immigrants*	
	IRR	95% CI	IRR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	0.99	0.99-0.99	1.004	0.98-1.02
Sex (female=1)	1.24	1.19-1.29	1.51	0.84-2.71
Marital status:				
Single	1.00	(signif. trend)	1.00	-
Married	1.90	1.76-2.05	1.30	0.46-3.67
Divorced	2.14	1.87-2.46	0.77	0.18-3.20
Widow	2.40	2.13-2.70	1.96	0.30-12.70
Ethnicity: any	1.02	0.95-1.08	0.72	0.25-2.06
Zone:				
Rural=1	0.70	0.68-0.73	1.09	0.54-2.21
Area:				
Northern	1.00	(signif. trend)	1.00	-
Central	1.14	1.07-1.21	0.71	0.21-2.33
Southern	1.22	1.14-1.30	0.66	0.18-2.35
Number of household members:				
One member	1.00	-	1.00	-
2 to 4 members	0.89	0.71-1.07	1.06	0.95-1.17
5 to 7 members	0.92	0.75-1.13	1.46	1.07-1.98
8 or more members	1.12	0.84-1.43	-	-
<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	2.04	1.71-2.44	3.08	0.63-14.97
Primary School	1.75	1.47-2.07	2.05	0.51-8.27
High School	1.54	1.29-1.83	3.35	0.89-12.49

Technical level	1.37	1.13-1.65	4.74	0.95-23.49
University level	1.00	(signif. trend)	1.00	-
Household income, per capita (continuous variable)	0.99	0.99-0.99	1.001	0.99-1.003
Current worker	0.85	0.77-0.95	0.65	0.39-1.09
Type of occupation:				
Head/ manager	1.00	-	1.00	-
Employee private system	0.98	0.90-1.06	1.06	0.77-1.46
Self employed	-	-	-	-
Employee public system	-	-	-	-
Employee domestic service	1.06	0.94-1.20	1.22	0.87-1.72
Unemployed	1.04	0.98-1.10	1.01	0.97-1.05
Has a contract	1.04	0.98-1.10	0.73	0.38-1.39
Type of contract: Temporary	1.04	0.98-1.10	0.95	0.65-1.39
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	1.08	1.02-1.16	1.009	0.84-1.20
Unfit	1.01	0.89-1.14	0.87	0.73-1.04
Sanitary Index (deficient=0)	1.44	1.33-1.55	0.93	0.64-1.36
Overcrowded household (Townsend):	1.11	1.02-1.21	1.56	0.90-2.73
HAI	1.59	1.24-2.04	0.55	0.90-2.73
CMI	0.60	0.46-0.77	1.80	0.44-7.24

<b>ACCESS TO HEALTH:</b>				
Type of provision:				
Private	1.00	-	1.00	(signif. trend)
Public 100% free	1.42	0.83-2.43	1.46	1.04-2.05
Public with some co-payment	1.40	0.82-2.40	1.12	1.008-1.25
None/don't know	0.93	0.51-1.96	1.001	0.95-1.05
Other	1.58	0.81-3.09	-	-
Use of cervical cancer screening service	1.16	1.13-1.20	0.14	0.01-1.09
Number of preventive health care attentions (continuous)	1.26	1.11-1.42	1.64	1.10-2.43
<b>MIGRATION STATUS (in the total Chilean population):</b>				
International immigrant (any)	0.69	0.62-0.76	-	-
International immigrant (missing values)	0.88	0.76-1.06	-	-
Years living in the country:				
Less than a year	-	-	1.00	-
1 to 5 years	-	-	1.006	0.79-1.26
6 to 10 years	-	-	1.22	0.81-1.85
11 to 15 years	-	-	0.88	0.73-1.06
16 to 20 years	-	-	0.88	0.75-1.04
21 or more years	-	-	0.96	0.76-1.23
Country of origin:				
Peru	-	-	0.81	0.61-1.08
Argentina	-	-	0.67	0.60-0.75
Bolivia	-	-	0.63	0.54-0.73
Ecuador	-	-	0.62	0.58-0.66
Internal migrant (any):	0.98	0.94-1.03	-	-
<b>MULTIPLICATIVE INTERACTION EFFECTS: no interactions found</b>				



**Table A9.8** Final model of adjusted Incidence Rate Ratio (IRR) (by socio-demographic variables) of the **number of emergency care attentions received** in the past month in Chile (Zero-inflated negative binomial regression), in the Chilean-born population excluding other health problems, CASEN, 2006 (weighted sample size= 16 130 743) (statistical significant values appear in grey shade in the table)

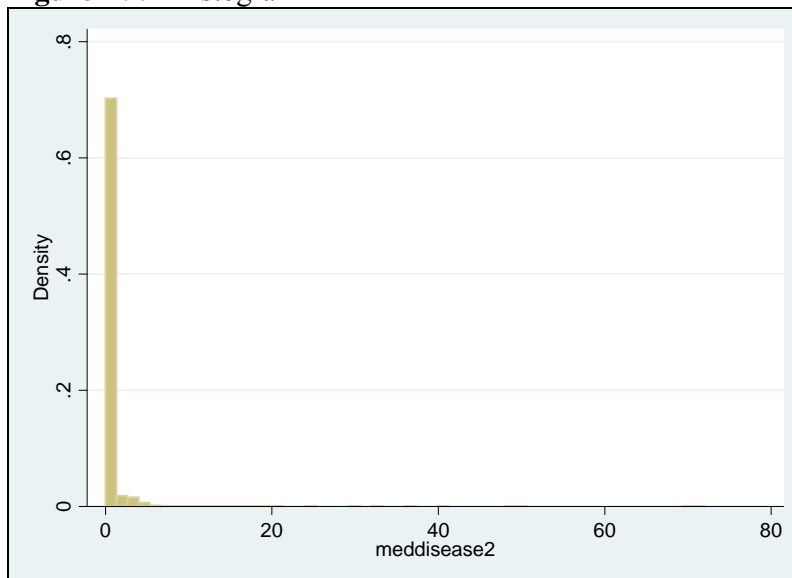
Social determinants	Number of medical attentions received Chilean-born population	
	OR	95% CI
Zone (rural=1)	0.87	0.83-0.89
Number of household members	1.007	0.99-1.01
Educational level:		
No education	1.21	1.12-1.31
Primary School	1.16	1.09-1.28
High School	1.17	1.09-1.24
Technical level	1.04	0.97-1.11
University level	1.00	(signif. trend)

## APPENDIX 9.2

**Histograms and Overdispersion Tests for the two count variables of this chapter: Any medical and any emergency attentions received in the past month**  
(significant p-values in grey shade in the tables)

*Number of **medical** attentions in the past month*

**Figure A9.1** Histogram



- Overdispersion test for demographic determinants of health

```
. reg ystar2 muhat2, noconstant noheader
```

ystar2	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat2	7.737181	.3531323	21.91	0.000	7.045051 8.429311

- For socioeconomic determinants of health

```
. reg ystar3 muhat3, noconstant noheader
```

ystar3	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat3	9.099393	.3805779	23.91	0.000	8.35347 9.845315

- For SES clusters in the immigrant population

```
. reg ystar4 muhat4, noconstant noheader
```

ystar4	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat4	12.24347	2.984399	4.10	0.000	6.390372 18.09657

- For material determinants of health

```
. reg ystar5 muhat5, noconstant noheader
```

ystar5	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat5	9.004407	.3677589	24.48	0.000	8.28361 9.725204

-For access to health care

```
. reg ystar6 muhat6, noconstant noheader
```

ystar6	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat6	2.912555	.1724043	16.89	0.000	2.574635 3.250476

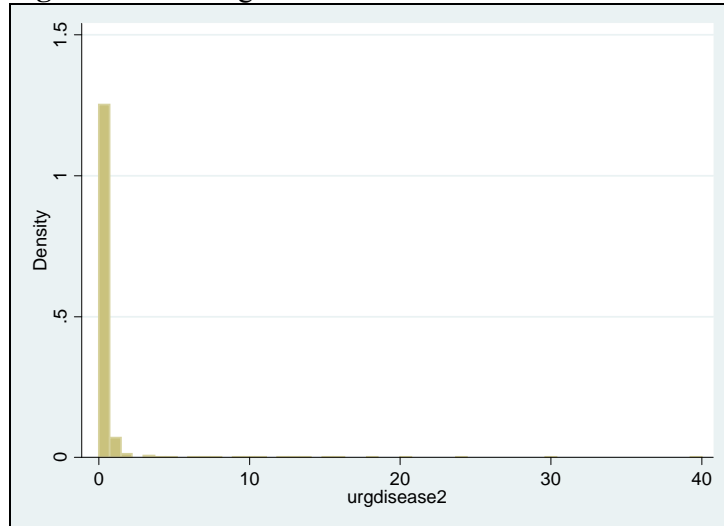
- For other migration determinants among the immigrant population

```
. reg ystar7 muhat7, noconstant noheader
```

ystar7	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat7	11.25018	2.736453	4.11	0.000	5.883365 16.61699

Number of *emergency* attentions in the past month

Figure A9.2 Histogram



- Overdispersion test for demographic determinants of health

```
. reg ystar8 muhat8, noconstant noheader
```

ystar8	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat8	17.69845	.879843	20.12	0.000	15.97398 19.42292

- For socioeconomic determinants of health

```
. reg ystar9 muhat9, noconstant noheader
```

ystar9	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat9	17.14481	.9003246	19.04	0.000	15.3802 18.90943

- For SES clusters in the immigrant population

```
. reg ystar10 muhat10, noconstant noheader
```

ystar10	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat10	9.968464	4.229487	2.36	0.019	1.673462 18.26347

- For material determinants of health

```
. reg ystar11 muhat11, noconstant noheader
```

ystar11	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat11	18.30548	.9403022	19.47	0.000	16.46251 20.14844

- For access to health care

```
. reg ystar12 muhat12, noconstant noheader
```

ystar12	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat12	9.923378	1.292623	7.68	0.000	7.389777 12.45698

- For other migration determinants among the immigrant population

```
. reg ystar13 muhat13, noconstant noheader
```

ystar13	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
muhat13	7.484307	2.288257	3.27	0.001	2.99651 11.9721

## APPENDIX 9.3

**Young fitting test for the partially adjusted models of the two count variables of this chapter: Any medical and any emergency attentions received in the past month**  
(significant p-values in grey shade at the end of the tables)

*Number of medical attentions in the past month***- Young test for demographic determinants of health:**

```
. zinb meddisease2 edad sexo z ethnicity maristatusdummy2 maristatusdummy3 maristatusdummy4
maristatusdummy5 areadummy2 areadummy3, inflate(edad sexo z ethnicity maristatusdummy2
maristatusdummy3 maristatusdummy4 maristatusdummy5 areadummy2 areadummy3) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =    268873
                                                Nonzero obs     =    40348
                                                Zero obs        =    228525
```

```
Inflation model = logit                      LR chi2(10)     =    953.04
Log likelihood = -166364.3                   Prob > chi2     =    0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
meddisease2						
edad	.0066668	.0005424	12.29	0.000	.0056037	.0077299
sexo	.1671903	.018343	9.11	0.000	.1312386	.203142
z	-.251737	.0184592	-13.64	0.000	-.2879163	-.2155577
ethnicity	-.0867234	.0287182	-3.02	0.003	-.1430101	-.0304367
maristatus~2	.0953724	.034874	2.73	0.006	.0270206	.1637243
maristatus~3	.1789451	.0510055	3.51	0.000	.0789762	.2789139
maristatus~4	-.0190599	.0479739	-0.40	0.691	-.113087	.0749671
maristatus~5	.518915	.4671552	1.11	0.267	-.3966924	1.434522
areadummy2	-.0200945	.0274985	-0.73	0.465	-.0739907	.0338016
areadummy3	-.0220736	.0277821	-0.79	0.427	-.0765256	.0323784
_cons	-.9158801	.0501849	-18.25	0.000	-1.014241	-.8175196
-----						
inflate						
edad	-.0126247	.0012457	-10.13	0.000	-.0150662	-.0101832
sexo	-.6010911	.040751	-14.75	0.000	-.6809616	-.5212207
z	.2553595	.0371445	6.87	0.000	.1825577	.3281613
ethnicity	-.1529847	.062781	-2.44	0.015	-.2760332	-.0299362
maristatus~2	.1801032	.0781318	2.31	0.021	.0269677	.3332388
maristatus~3	.1443424	.1116316	1.29	0.196	-.0744515	.3631363
maristatus~4	-16.12895	589.8005	-0.03	0.978	-1172.117	1139.859
maristatus~5	.3863939	.7666937	0.50	0.614	-1.116298	1.889086
areadummy2	-.1029942	.0513449	-2.01	0.045	-.2036283	-.0023601
areadummy3	-.3514799	.0543967	-6.46	0.000	-.4580954	-.2448643
_cons	.653496	.0908507	7.19	0.000	.4754319	.8315602
-----						
/lnalpha	1.306536	.0239068	54.65	0.000	1.25968	1.353393
-----						
alpha	3.693359	.0882963			3.524293	3.870535
-----						

Vuong test of zinb vs. standard negative binomial: z = 14.16 Pr>z = 0.0000

**- Young test for socioeconomic determinants of health:**

```
. zinb meddisease2 houseincomepc educleveleddummy1 educleveleddummy2 educleveleddummy3
educleveleddummy4 educleveleddummy5, inflate( houseincomepc educleveleddummy1 educleveleddummy2
educleveleddummy3 educleveleddummy4 educleveleddummy5) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =    268439
                                                Nonzero obs     =    40312
                                                Zero obs        =    228127
```

```
Inflation model = logit                      LR chi2(6)     =    64.90
Log likelihood = -168126.7                   Prob > chi2     =    0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
meddisease2						
houseincom-c	-8.62e-08	3.05e-08	-2.83	0.005	-1.46e-07	-2.65e-08
educleveled~1	.2329375	.0440968	5.28	0.000	.1465093	.3193657
educleveled~2	.260698	.0492934	5.29	0.000	.1640846	.3573114
educleveled~3	.129784	.0404708	3.21	0.001	.0504628	.2091053
educleveled~4	.1674365	.0419897	3.99	0.000	.0851382	.2497348
educleveled~5	.0767096	.048031	1.60	0.110	-.0174294	.1708485
_cons	-1.103067	.0412112	-26.77	0.000	-1.18384	-1.022294
-----						
inflate						
houseincom-c	-1.59e-06	2.58e-07	-6.16	0.000	-2.09e-06	-1.08e-06
educleveled~1	-21.43985	6770.148	-0.00	0.997	-13290.69	13247.81
educleveled~2	-21.29536	12334.65	-0.00	0.999	-24196.77	24154.18
-----						

```

educleveld~3 | -.1317744 .1952194 -0.68 0.500 -.5143974 .2508486
educleveld~4 | .688597 .1910942 3.60 0.000 .3140593 1.063135
educleveld~5 | .92134 .1969608 4.68 0.000 .5353039 1.307376
   _cons | -1.361355 .2015263 -6.76 0.000 -1.756339 -.9663709
-----+-----
   /lnalpha | 1.683833 .0186407 90.33 0.000 1.647298 1.720368
-----+-----
   alpha | 5.38616 .1004018 5.192928 5.586583
-----+-----
Vuong test of zinb vs. standard negative binomial: z = 9.66 Pr>z = 0.0000

```

- Vuong test for SES clusters among immigrants:

```
. zinb meddisease2 SESdummy1 SESdummy2, inflate( SESdummy1 SESdummy2) vuong nolog
```

```

Zero-inflated negative binomial regression      Number of obs = 1874
                                                Nonzero obs  = 238
                                                Zero obs     = 1636

Inflation model = logit                      LR chi2(2) = 2.24
Log likelihood = -1040.741                    Prob > chi2 = 0.3264

```

```

-----+-----
                |      Coef.   Std. Err.      z    P>|z|      [95% Conf. Interval]
-----+-----
meddisease2 |
  SESdummy1 | -.4799944   .3456972   -1.39  0.165   -1.157548   .1975596
  SESdummy2 | -.2162986   .1868562   -1.16  0.247    -.58253    .1499327
   _cons | -1.122673   .143271    -7.84  0.000   -1.403479   -.8418672
-----+-----
inflate |
  SESdummy1 | 18.87235   147566.7    0.00  1.000   -289206.5   289244.3
  SESdummy2 | 7.487301   147569.2    0.00  1.000   -289222.8   289237.8
   _cons | -21.77959   147566.7   -0.00  1.000   -289247.2   289203.6
-----+-----
   /lnalpha | 2.194482   .1119678   19.60  0.000   1.975029   2.413935
-----+-----
   alpha | 8.975347   1.00495    7.206826 11.17785
-----+-----
Vuong test of zinb vs. standard negative binomial: z = 0.10 Pr>z = 0.4617

```

- Vuong test for material determinants of health:

```
. zinb meddisease2 overcrowTownscat hai cmi sanitindex matindexdummy2 matindexdummy3, inflate(
overcrowTownscat hai cmi sanitindex matindexdummy2 matindexdummy3) vuong nolog
```

```

Zero-inflated negative binomial regression      Number of obs = 266887
                                                Nonzero obs  = 40060
                                                Zero obs     = 226827

Inflation model = logit                      LR chi2(6) = 185.40
Log likelihood = -166946.4                    Prob > chi2 = 0.0000

```

```

-----+-----
                |      Coef.   Std. Err.      z    P>|z|      [95% Conf. Interval]
-----+-----
meddisease2 |
overcrowTo~t | -.9769319   .2660659   -3.67  0.000   -1.498411   -.4554523
   hai | 4.068203   1.206227    3.37  0.001    1.704043    6.432364
   cmi | -4.137349   1.225419   -3.38  0.001   -6.539125   -1.735572
  sanitindex | 1.062457   .2496103    4.26  0.000    .5732295    1.551684
matindexdu~2 | -.6111168   .1927004   -3.17  0.002   -.9888027   -.233431
matindexdu~3 | -1.326121   .3877044   -3.42  0.001   -2.086007   -.5662339
   _cons | -1.002049   .0370276  -27.06  0.000   -1.074622   -.9294766
-----+-----
inflate |
overcrowTo~t | 10.70658   1.139937    9.39  0.000    8.472343   12.94082
   hai | -44.02051   5.238631  -8.40  0.000  -54.28803  -33.75298
   cmi | 44.31794   5.288778    8.38  0.000   33.95212   54.68375
  sanitindex | -9.067277   1.067695   -8.49  0.000  -11.15992   -6.974634
matindexdu~2 | 6.922401   .835528    8.29  0.000   5.284796    8.560006
matindexdu~3 | 13.65738   1.670583    8.18  0.000   10.3831    16.93167
   _cons | -3.403492   .2472934  -13.76  0.000   -3.888178   -2.918806
-----+-----
   /lnalpha | 1.711617   .0196372   87.16  0.000   1.673129   1.750106
-----+-----
   alpha | 5.537911   .108749    5.328817 5.755211
-----+-----
Vuong test of zinb vs. standard negative binomial: z = 8.97 Pr>z = 0.0000

```

- Vuong test for access to health care:

```
. zinb meddisease2 accessprogram accesspap previsiondummy1 previsiondummy2 previsiondummy3
previsiiondummy4, inflate( accessprogram accesspap previsiondummy1 previsiondummy2 previsiondummy3
previsiiondummy4) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =    28982
                                                Nonzero obs     =    9719
                                                Zero obs        =   19263
```

```
Inflation model = logit                      LR chi2(6)      =    976.45
Log likelihood = -33434.59                   Prob > chi2     =    0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
meddisease2						
accessprog-m	.2359859	.0082862	28.48	0.000	.2197452	.2522266
accesspap	.0790721	.0298906	2.65	0.008	.0204877	.1376566
previsiiond~1	.0602562	.1653912	0.36	0.716	-.2639046	.3844171
previsiiond~2	.1040769	.1534066	0.68	0.497	-.1965944	.4047482
previsiiond~3	.147238	.1534376	0.96	0.337	-.1534942	.4479701
previsiiond~4	.3084763	.1807132	1.71	0.088	-.045715	.6626676
_cons	-.7844023	.157206	-4.99	0.000	-1.09252	-.4762841
-----						
inflate						
accessprog-m	.0961856	.0136144	7.06	0.000	.0695019	.1228693
accesspap	.2008631	.1294013	1.55	0.121	-.0527588	.454485
previsiiond~1	-1.300267	.6407893	-2.03	0.042	-2.556191	-.0443435
previsiiond~2	-.4141225	.4430741	-0.93	0.350	-1.282532	.4542867
previsiiond~3	-.8849399	.4530153	-1.95	0.051	-1.772833	.0029537
previsiiond~4	-1.591927	.8990282	-1.77	0.077	-3.35399	.1701358
_cons	-1.341901	.4702367	-2.85	0.004	-2.263548	-.4202544
-----						
/lnalpha	.685303	.0542833	12.62	0.000	.5789097	.7916962
-----						
alpha	1.984373	.1077182			1.784092	2.207137
-----						

Vuong test of zinb vs. standard negative binomial: z = 4.67 Pr>z = 0.0000

Number of *emergency* attentions in the past month

## - Vuong test for demographic determinants of health:

```
. zinb urgdisase2 edad sexo z ethnicity maristatusdummy2 maristatusdummy3 marist
> atusdummy4 maristatusdummy5 areadummy2 areadummy3, inflate(edad sexo z ethnicity
> maristatusdummy2 maristatusdummy3 maristatusdummy4 maristatusdummy5 areadummy2 a
> readummy3) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =    268873
                                                Nonzero obs     =    19443
                                                Zero obs       =    249430
Inflation model = logit                      LR chi2(10)     =    692.42
Log likelihood = -89331.91                   Prob > chi2     =    0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
urgdisase2						
edad	-.0077025	.0006216	-12.39	0.000	-.0089208	-.0064843
sexo	.2167707	.0197522	10.97	0.000	.1780571	.2554843
z	-.3434065	.0208459	-16.47	0.000	-.3842637	-.3025492
ethnicity	.0205288	.0318957	0.64	0.520	-.0419855	.0830432
maristatus~2	.6442173	.0377209	17.08	0.000	.5702857	.7181489
maristatus~3	.765163	.0690859	11.08	0.000	.6297571	.9005689
maristatus~4	.8772883	.0610256	14.38	0.000	.7576804	.9968963
maristatus~5	.3697514	.8351918	0.44	0.658	-1.267194	2.006697
areadummy2	.1343326	.0318469	4.22	0.000	.0719138	.1967514
areadummy3	.200027	.0324843	6.16	0.000	.1363589	.2636951
_cons	-2.053008	.050741	-40.46	0.000	-2.152459	-1.953557
-----						
inflate						
edad	-.0464343	.0027512	-16.88	0.000	-.0518265	-.041042
sexo	-.7312912	.0766214	-9.54	0.000	-.8814663	-.5811161
z	.1057885	.0801986	1.32	0.187	-.0513977	.2629748
ethnicity	-.1966978	.1347489	-1.46	0.144	-.4608009	.0674052
maristatus~2	21.0105	579.3419	0.04	0.971	-1114.479	1156.5
maristatus~3	21.07157	579.3419	0.04	0.971	-1114.418	1156.561
maristatus~4	20.32776	579.3421	0.04	0.972	-1115.162	1155.817
maristatus~5	21.21371	579.3442	0.04	0.971	-1114.28	1156.708
areadummy2	-.1679968	.1170529	-1.44	0.151	-.3974164	.0614227
areadummy3	-.2146865	.1212732	-1.77	0.077	-.4523775	.0230046
_cons	-18.50992	579.3419	-0.03	0.975	-1153.999	1116.979
-----						
/lnalpha	2.198905	.0171519	128.20	0.000	2.165288	2.232522
-----						
alpha	9.015138	.1546272			8.717112	9.323354

Vuong test of zinb vs. standard negative binomial: z = 8.49 Pr>z = 0.0000

## - Vuong test for socioeconomic determinants of health:

```
. zinb urgdisase2 houseincomepc educleveleddummy1 educleveleddummy2 educleveleddummy3
> educleveleddummy4 educleveleddummy5, inflate( houseincomepc educleveleddummy1 educleve
> ldummy2 educleveleddummy3 educleveleddummy4 educleveleddummy5) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =    268439
                                                Nonzero obs     =    19424
                                                Zero obs       =    249015
Inflation model = logit                      LR chi2(6)      =    180.99
Log likelihood = -89196.01                   Prob > chi2     =    0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
urgdisase2						
houseincom~c	-6.35e-07	7.69e-08	-8.26	0.000	-7.86e-07	-4.84e-07
educleveled~1	.61968	.0909064	6.82	0.000	.4415067	.7978534
educleveled~2	.7134022	.0945974	7.54	0.000	.5279947	.8988098
educleveled~3	.528642	.0876676	6.03	0.000	.3568167	.7004672
educleveled~4	.4426227	.0899486	4.92	0.000	.2663268	.6189186
educleveled~5	.3134536	.0971555	3.23	0.001	.1230324	.5038749
_cons	-2.195495	.0896863	-24.48	0.000	-2.371277	-2.019713
-----						
inflate						
houseincom~c	-3.24e-07	2.00e-07	-1.62	0.104	-7.15e-07	6.70e-08
educleveled~1	-22.58402	14146.71	-0.00	0.999	-27749.62	27704.45
educleveled~2	-22.66234	10540.5	-0.00	0.998	-20681.66	20636.34
educleveled~3	-.0721161	.2325091	-0.31	0.756	-.5278256	.3835934
educleveled~4	.3435676	.2335267	1.47	0.141	-.1141364	.8012715
educleveled~5	.1396443	.2502428	0.56	0.577	-.3508225	.6301111
_cons	-.6604718	.2400496	-2.75	0.006	-1.13096	-.1899832
-----						
/lnalpha	2.010088	.0266157	75.52	0.000	1.957922	2.062253
-----						
alpha	7.463971	.1986587			7.084588	7.86367

Vuong test of zinb vs. standard negative binomial: z = 7.28 Pr>z = 0.0000

## - Vuong test for SES clusters among immigrants:

```
. zinb urgdisase2 SESdummy1 SESdummy2, inflate( SESdummy1 SESdummy2) vuong nolog
```

> g

```
Zero-inflated negative binomial regression      Number of obs =      1874
                                                Nonzero obs   =        99
                                                Zero obs      =      1775
Inflation model = logit                      LR chi2(2)      =       1.36
Log likelihood = -442.7139                   Prob > chi2     =      0.5077
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
urgdisease2						
SESdummy1	.6022443	.7383607	0.82	0.415	-.8449161	2.049405
SESdummy2	.5886938	.6305367	0.93	0.350	-.6471354	1.824523
_cons	-3.042767	.2128428	-14.30	0.000	-3.459932	-2.625603
-----						
inflate						
SESdummy1	10.26984	404.1672	0.03	0.980	-781.8833	802.423
SESdummy2	9.855909	404.1686	0.02	0.981	-782.3	802.0118
_cons	-11.70402	404.1659	-0.03	0.977	-803.8547	780.4466
-----						
/lnalpha	1.726712	.590965	2.92	0.003	.5684414	2.884982
-----						
alpha	5.622135	3.322485			1.765513	17.90324

Vuong test of zinb vs. standard negative binomial: z = 0.17 Pr>z = 0.4320

- Vuong test for material determinants of health:

```
. zinb urgdisease2 overcrowTownscat hai cmi sanitindex matindexdummy2 matindexdummy3,
> inflate( overcrowTownscat hai cmi sanitindex matindexdummy2 matindexdummy3) vuong nolo
> g
```

```
Zero-inflated negative binomial regression      Number of obs =     266887
                                                Nonzero obs   =     19273
                                                Zero obs      =    247614
Inflation model = logit                      LR chi2(6)      =     212.12
Log likelihood = -89025.77                   Prob > chi2     =     0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
urgdisease2						
overcrowTo~t	-4.49852	.3352067	-13.42	0.000	-5.155513	-3.841527
hai	20.63896	1.516099	13.61	0.000	17.66746	23.61046
cmi	-20.98195	1.54006	-13.62	0.000	-24.00042	-17.96349
sanitindex	4.485561	.311082	14.42	0.000	3.875852	5.095271
matindexdu~2	-3.223301	.2413231	-13.36	0.000	-3.696285	-2.750316
matindexdu~3	-6.849043	.4932051	-13.89	0.000	-7.815707	-5.882378
_cons	-1.665452	.0530496	-31.39	0.000	-1.769427	-1.561477
-----						
inflate						
overcrowTo~t	-14.86355	4.040352	-3.68	0.000	-22.78249	-6.944601
hai	73.33947	18.32237	4.00	0.000	37.42828	109.2507
cmi	-74.17414	18.61544	-3.98	0.000	-110.6597	-37.68856
sanitindex	13.96384	3.719987	3.75	0.000	6.672801	21.25488
matindexdu~2	-11.49253	2.934061	-3.92	0.000	-17.24318	-5.741874
matindexdu~3	-23.29732	6.09291	-3.82	0.000	-35.23921	-11.35544
_cons	-1.116049	.4702777	-2.37	0.018	-2.037777	-.1943217
-----						
/lnalpha	2.356342	.0191306	123.17	0.000	2.318846	2.393837
-----						
alpha	10.55228	.2018712			10.16394	10.95545

Vuong test of zinb vs. standard negative binomial: z = 3.74 Pr>z = 0.0001



- Vuong test for access to health care:

```
. zinb urgdisase2 accessprogram accesspap previsiondummy1 previsiondummy2 previsionum
> my3 previsiondummy4, inflate( accessprogram accesspap previsiondummy1 previsiondummy2 p
> reVISIONdummy3 previsiondummy4) vuong nolog
```

```
Zero-inflated negative binomial regression      Number of obs   =      28982
                                                Nonzero obs     =      3596
                                                Zero obs        =      25386

Inflation model = logit                       LR chi2(6)      =      179.47
Log likelihood = -15425.15                    Prob > chi2     =      0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
-----						
urgdisase2						
accessprog~m	.152122	.0154039	9.88	0.000	.1219308	.1823131
accesspap	.2171462	.0591485	3.67	0.000	.1012173	.3330751
previsiion~1	-.1082503	.307042	-0.35	0.724	-.7100417	.493541
previsiion~2	.331712	.278779	1.19	0.234	-.2146848	.8781089
previsiion~3	.3216137	.2801448	1.15	0.251	-.2274599	.8706874
previsiion~4	.4455024	.3439605	1.30	0.195	-.2286478	1.119653
_cons	-2.078196	.2947133	-7.05	0.000	-2.655823	-1.500568
-----						
inflate						
accessprog~m	-.8127925	.3248959	-2.50	0.012	-1.449577	-.1760083
accesspap	1.180614	.6084811	1.94	0.052	-.0119866	2.373216
previsiion~1	-.6088969	1.095789	-0.56	0.578	-2.756604	1.53881
previsiion~2	-.9268549	.9364838	-0.99	0.322	-2.76233	.9086197
previsiion~3	-.8756579	.9377782	-0.93	0.350	-2.713669	.9623535
previsiion~4	-.2472492	1.167868	-0.21	0.832	-2.536229	2.041731
_cons	-.5725531	1.112278	-0.51	0.607	-2.752578	1.607472
-----						
/lnalpha	1.960908	.0542979	36.11	0.000	1.854486	2.06733
-----						
alpha	7.105777	.3858287			6.388415	7.903692
-----						
Vuong test of zinb vs. standard negative binomial: z = 2.43 Pr>z = 0.0075						

## **APPENDIX 10**

### **TABLES AND ADDITIONAL METHODOLOGICAL INFORMATION FROM CHAPTER 10**

## APPENDIX 10.1 TABLES FROM CHAPTER 10

**Table A10.1** Prevalence of **any disability** of the Chilean-born population and the IIP in Chile, CASEN survey 2006 (weighted sample size 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born population		International immigrant population living in Chile	
	%	95% CI	%	95% CI
Any disability <sup>b</sup>	6.93	6.74-7.13	3.55	2.49-5.02
Type of disability: <sup>a</sup>				
Visual <sup>b</sup>	3.17	3.05-3.28	1.00	0.48-2.07
Hearing	1.22	1.16-1.29	0.59	0.22-1.58
Speaking	0.32	0.29-0.36	0.19	0.039-0.95
Physical <sup>b</sup>	2.15	2.06-2.24	0.38	0.19-0.76
Cognitive	0.86	0.80-0.91	0.23	0.074-0.74
Psychiatric	0.41	0.36-0.45	0.21	0.059-0.71
Number of disability: <sup>a</sup>				
One disability <sup>b</sup>	5.68	4.99-5.88	3.55	2.49-5.02
Two disabilities	1.09	1.02-1.17	0.96	0.49-1.89
Three disabilities	0.16	0.14-0.20	0.16	0.040-0.60
Cause of disability: <sup>a</sup>				
Birth	23.65	22.45-24.89	23.09	10.64-43.06
Disease	45.66	44.29-47.04	45.15	28.70-62.73
Accident <sup>b</sup>	11.08	10.29-18.29	2.92	0.99-8.26
Other <sup>b</sup>	2.43	2.00-2.95	26.73	13.00-47.11

<sup>a</sup>p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup>p<0.0001 when comparing the Chilean-born population with the international immigrant population

**Table A10.2** Prevalence of **any disability** of in international immigrant population (IIP) stratified by type of country of origin and years living in the country, CASEN survey 2006 (weighted population size included: 154 431)

Country of origin	Any disability in the IIP	
	%	95% CI
Peru	0.40	0.14-1.16
Argentina	0.75	0.47-1.20
Bolivia	0.23	0.08-0.64
Ecuador	0.18	0.05-0.58
Other	1.95	1.12-3.39
Total	3.52	2.46-5.00
Years living in the country	Any disability in the IIP	
	%	95% CI
Less than a year	0.80	0.41-1.53
1 to 5 years	0.25	0.05-1.10
6 to 10 years	0.56	0.20-1.56
11 to 15 years	0.06	0.001-0.27
16 to 20 years	0.02	0.006-0.11
21 or more years	1.85	1.12-3.03
Total	3.55	2.50-5.02

**Table A10.3** Adjusted Odds Ratio (OR) (by socio-demographics) of presenting **any disability** in Chile, a comparison between the Chilean-born population and the International Immigrant Population (IIP), CASEN, 2006 (weighted sample size 16 130 743 and 154 431, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Any disability in the Chilean-born Population		Any disability in the International Immigrant population*	
	OR	95% CI	OR	95% CI
<b>DEMOGRAPHICS:</b>				
Age	1.05	1.04-1.05	1.04	1.02-1.06
Sex (female=1)	0.94	0.89-1.004	0.56	0.25-1.25
Marital status:				
Single	1.00	(signif. trend)	1.00	-
Married	0.47	0.44-0.51	0.79	0.29-2.17
Divorced	0.69	0.61-0.78	2.57	0.52-12.73
Widow	0.62	0.56-0.69	1.07	0.26-4.39
Ethnicity: any	0.71	0.35-1.44	1.06	0.17-6.48
Type of ethnicity:				
Aymara	1.00	-	1.00	-
Atacameño	2.19	0.99-4.86	0.54	0.05-4.97
Mapuche	1.64	0.81-3.34	0.37	0.02-5.71
Others	1.56	0.58-4.20	-	-
Zone:				
Rural=1	0.99	0.94-1.05	1.56	0.80-3.04
Area:				
Northern	1.00	-	1.00	-
Central	1.00	0.90-1.12	0.48	0.14-1.64
Southern	1.02	0.91-1.14	0.89	0.27-2.91

Number of household members:				
One member	1.00	(signif. trend)	1.00	-
2 to 4 members	0.85	0.75-0.95	0.48	0.13-1.74
5 to 7 members	0.73	0.64-0.83	0.48	0.10-2.20
8 or more members	0.89	0.74-1.08	0.41	0.07-2.46
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	3.70	3.16-4.32	1.94	0.41-9.12
Primary School	2.50	2.17-2.88	1.95	0.70-5.40
High School	1.52	1.31-1.75	1.05	0.37-2.91
Technical level	1.24	1.05-1.47	0.07	0.01-0.48
University level	1.00	(signif. trend)	1.00	(not signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	2.58	2.34-2.85	2.09	0.85-5.10
Quintile 2	1.87	1.69-2.08	1.53	0.57-4.13
Quintile 3	1.60	1.44-1.79	0.68	0.18-2.51
Quintile 4	1.28	1.14-1.43	1.14	0.33-3.92
Quintile 5 (wealthiest)	1.00	(signif. trend)	1.00	-
Current worker	0.38	0.27-0.53	4.31	0.43-9.63
Type of occupation:				
Head/ manager	1.00	(not signif. trend)	-	-
Employee private system	1.17	0.85-1.60	1.00	-
Self employed	1.66	1.21-2.27	-	-
Employee public system	1.10	0.78-1.56	-	-
Employee domestic service	1.38	0.95-2.02	-	-
Unemployed:				
Found a job and starts soon	1.00	-	-	-
Doesn't want to work	1.05	0.56-1.95	1.00	-
Can't find a job	1.86	0.90-3.51	0.78	0.05-10.49
Has an intermittent informal job	0.76	0.38-1.54	1.60	0.10-25.08

Other reason, not stated	1.49	0.80-2.75	0.04	0.002-0.92
Inactive:				
Student	1.00	(no signif. trend)	1.00	(no signif. trend)
Housewife	0.93	0.51-1.71	1.50	0.18-12.31
Retired	2.74	1.49-5.06	1.10	0.08-13.59
Ill	13.75	7.51-25.18	16.86	1.17-242.56
Has a contract	0.80	0.67-0.95	2.03	0.43-9.63
Type of contract: Temporary	1.05	0.91-1.23	0.61	0.14-2.51
Workday dedication: Full time	0.77	0.63-0.94	2.27	0.35-14.45
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	(signif. trend)	1.00	-
Sub-standard	1.26	1.18-1.34	0.90	0.44-1.81
Unfit	1.90	1.54-2.35	4.37	0.86-22.01
Sanitary Index (deficient=0)	1.04	0.98-1.10	0.82	0.37-1.81
Overcrowded household (Townsend):	0.69	0.64-0.74	0.58	0.26-1.30
Household assets:				
Car	0.60	0.53-0.69	2.15	0.69-6.63
Washing machine	0.99	0.90-1.09	0.73	0.22-2.43
Fridge	2.13	1.94-2.33	0.54	0.12-2.43
Water heater	1.06	0.96-1.18	2.44	0.49-12.05
Landline phone	1.32	1.19-1.46	0.80	0.25-2.55
Cable TV	0.91	0.80-1.02	0.77	0.24-2.51
Computer	0.65	0.56-0.76	0.84	0.15-4.61
Internet	0.78	0.63-0.97	0.40	0.03-4.26
Mobile phone	0.52	0.49-0.55	0.87	0.37-2.08

HAI	0.96	0.94-0.98	0.94	0.87-1.07
CMI	0.96	0.95-0.97	0.94	0.82-1.08
<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	(not signif. trend)	1.00	(signif. trend)
Other	1.70	0.89-3.24	-	
Public with some co-payment	1.47	1.007-2.16	33.13	2.30-477.22
None/don't know	1.03	0.64-1.64	41.35	1.81-939.96
Public 100% free	2.26	1.54-3.31	55.81	3.31-940.59
Use of cervical cancer screening service	0.76	0.68-0.86	0.17	0.01-1.58
Mean attentions received preventive health care	1.05	1.03-1.08	0.52	0.22-1.20
Categories:				
1 or 2 health controls	1.00	(signif. trend)	1.00	(no signif. trend)
3 or 4 health controls	1.33	1.21-1.45	0.06	0.01-0.30
5 or 6 health controls	1.48	1.13-1.93	-	-
7 or more health controls	2.70	1.99-3.65	3.60	0.31-41.74
Type of last preventive health care:				
Well baby care	1.00	(no signif. trend)	-	-
Antenatal care	0.13	0.05-0.34	-	-
Gynaecologic control	0.35	0.17-0.72	1.00	(no signif. trend)
Chronic disease control	0.78	0.40-1.54	1.52	0.14-25.85
Preventive adult and elderly	0.69	0.35-1.36	0.67	0.07-6.33
Other control attention	0.91	0.46-1.82	1.64	0.16-15.98
<b>MIGRATION STATUS (for the total Chilean population):</b>				
International immigrant (any)	0.49	0.34-0.72		
International immigrant (missing values)	1.37	0.89-1.93		
Years living in the country:				
Less than a year	-	-	1.00	(no signif. trend)
1 to 5 years	-	-	0.76	0.14-4.09
6 to 10 years	-	-	1.72	0.48-6.17
11 to 15 years	-	-	0.37	0.06-2.64
16 to 20 years	-	-	0.13	0.02-0.65
21 or more years	-	-	2.95	1.09-8.00
Country of origin:				
Peru	-	-	0.49	0.13-1.78



Argentina	-	-	0.58	0.25-1.36
Bolivia	-	-	0.85	0.24-3.01
Ecuador	-	-	1.38	0.27-6.95
Internal migrant (any):	0.91	0.86-0.97	-	-
<b>MULTIPLICATIVE INTERACTIONS:</b>				
Overcrowding Townsend score * Age	0.99	0.99-0.99	-	-
Educational level * Provision	1.06	1.03-1.09	-	-
Educational level * Household income	0.97	0.95-0.99	-	-
Provision * Household income	1.09	1.06-1.11	-	-
Sex* Educational level	-	-	-	-
Sex* Household income	-	-	-	-
Age* Access to preventive health services	0.99	0.99-0.99	-	-
International immigrant * years living in the country	1.001	0.99-1.005	-	-
Int. immigrants * Household income	1.09	0.85-1.40	-	-
Int. immigrants * Educational level	1.04	0.74-1.47	-	-

**Table A10.4** Odds Ratio (OR) of presenting any Disability in the **International Immigrant Population by age groups**, adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.92	0.81-	1.05	1.06	1.02-	1.10	1.33	1.12-	1.56
Sex (female=1)	0.13	0.02-	0.78	0.61	0.20-	1.77	1.02	0.28-	3.62
Marital status:									
Single	-	-		1.00	-		1.00	(no signif. trend)	
Married	-	-		0.54	0.15-	1.85	19.44	1.44-	23.74
Divorced	-	-		1.79	0.28-	11.39	-	-	
Widow	-	-		1.19	0.14-	10.01	4.31	0.45	15.23
Ethnicity: any	0	-		0.49	0.06-	3.88	6.23	2.35-	13.43
Zone: rural=1	1.19	0.19-	7.26	1.02	0.32-	3.29	3.13	0.64-	15.13
Area:									
Northern	1.00	(signif. trend)		1.00	-		1.00	-	
Central	8.77	1.11-	16.88	0.40	0.09-	1.69	0.17	0.01-	1.82
Southern	3.08	1.99-	4.76	0.50	0.12-	2.07	2.98	0.41-	21.42
Number of household members	0.93	0.43-	1.76	0.99	0.79-	1.22	1.06	0.69-	1.62
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		2.64	0.26-	26.77	6.31	0.42-	92.53
Primary School	-	-		1.08	0.16-	7.23	9.50	1.15-	78.07
High School	-	-		1.08	0.20-	5.80	4.28	0.43-	41.23
Technical level	-	-		0	-		-	-	
University level	1.00	-		1.00	-		1.00	(no signif. trend)	
Household income:									
Quintile 1 (poorest)	-	-		3.10	0.56-	17.09	2.58	0.45-	14.61
Quintile 2	1.76	0.12-	25.42	0.23	0.01-	2.84	3.34	0.48-	39.54
Quintile 3	0.46	0.02-	7.65	1.44	0.16-	12.72	0.03	0.001-	0.74

Quintile 4	1.45	0.09-	21.25	2.42	0.28-	20.39	1.09	0.19-	9.96
Quintile 5 (wealthiest)	1.00	-		1.00	-		1.00	(no signif. trend)	
Has a contract	-	-		3.93	1.08-	15.45	-	-	
Temporary work	-	-		0.66	0.17-	2.45	-	-	
Low SES cluster	8.37	1.03-	16.79	3.16	1.09-	9.16	23.46	2.74-	200.31
Medium SES cluster	5.03	3.02-	8.32	1.24	0.44-	3.44	6.37	0.96-	42.10
High SES cluster	1.00	(signif. trend)		1.00	(no signif. trend)		1.00	(signif. trend)	
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	0.29	0.01-	6.07	0.33	0.01-	1.33	7.79	0.01-	15.35
Unfit	0	-		3.96	0.03-	9.66	3.97	0.01-	11.38
Sanitary Index (deficient=0)	28.34	0.79-	1.57	1.14	0.003-	3.35	0.06	0.03-	10.59
Overcrowded household (Townsend):	0.10	0.01-	7.16	0.30	0.004-	2.11	11.62	0.07-	18.88
HAI	-	-		8.00	0.002-	13.99	0.03	0.006-	1.32
CMI	0.001	0.0001-	13.98	0.01	0.0001-	1.23	4.65	0.07-	12.88

**ACCESS TO HEALTH:**

Type of provision:									
Private	1.00	-		1.00	(signif. trend)		1.00	-	
Other	-	-		-			-	-	
Public with some co-payment	0.23	0.01-	3.99	5.38	1.65-	11.75	0.001	0.0001-	1.17
Public 100% free	0.21	0.01-	3.46	4.29	1.53-	13.65	0.01	0.0001-	1.55
None/don't know	0.59	0.03-	10.35	4.85	1.32-	12.53	0.08	0.001-	6.53
Use of cervical cancer screening service	-	-		0.05	0.002-	0.95	0.55	0.05-	5.96
Mean attentions received preventive health care	-	-		0.74	0.32-	1.69	0.20	0.05-	0.76

**MIGRATION STATUS :**

Years living in the country:									
Less than a year	1.00	-		1.00	-		1.00	-	
1 to 5 years	-	-		1.17	0.21-	6.25	-	-	
6 to 10 years	-	-		1.57	0.34-	7.22	0.04	0.003-	3.26
11 to 15 years	-	-		0.39	0.05-	8.23	2.27	0.07-	6.55
16 to 20 years	-	-		0.14	0.02-	0.98	-	-	
21 or more years	-	-		3.09	0.81-	11.78	-	-	
Country of origin:									
Peru	1.04	0.08-	13.16	0.31	0.06-	1.58	13.98	0.60-	32.01
Argentina	0.34	0.04-	3.81	0.41	0.15-	1.13	1.60	0.18-	14.16
Bolivia	-	-		0.37	0.09-	1.41	-	-	
Ecuador	-	-		1.33	0.26-	6.81	-	-	

**Table A10.5** Odds Ratio (OR) of presenting any disability in the **Chilean-born population by age groups**, adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 16 130 746) (statistical significant values appear in grey shade in the table)

Variables	Under 16 years old			Working age (16 to 65)			Elderly (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	1.08	1.06-	1.10	1.05	1.04-	1.06	1.05	1.04-	1.06
Sex (female=1)	0.89	0.74-	1.07	1.04	0.98-	1.51	0.99	0.90-	1.10
Marital status:									
Single	1.00	-		1.00	(signif. trend)		1.00	-	
Married	-	-		0.43	0.39-	0.47	0.78	0.65-	0.93
Divorced	-	-		0.66	0.57-	0.76	0.83	0.64-	1.02
Widow	-	-		0.55	0.46-	0.66	2.30	0.66-	7.92
Ethnicity: any	1.46	1.11-	1.91	1.18	1.03-	1.36	1.07	0.89-	1.30
Zone: rural=1	0.77	0.65-	0.91	1.06	0.99-	1.16	0.93	0.85-	1.02
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	1.03	0.76-	1.40	1.06	0.93-	1.21	0.84	0.61-	1.01
Southern	0.94	0.67-	1.28	1.08	0.95-	1.23	0.86	0.71-	1.04
Number of household members	1.03	0.098-	1.23	0.96	0.94-	0.98	0.95	0.92-	0.97
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		2.08	1.58-	3.59	1.52	1.08-	1.95
Primary School	-	-		1.68	1.22-	2.31	1.52	1.10-	2.09
High School	-	-		1.33	0.98-	1.79	1.32	0.95-	1.83
Technical level	-	-		1.32	0.97-	1.80	0.88	0.46-	1.69
University level	1.00	-		1.00	(no signif. trend)		1.00	(no signif. trend)	

Household income:									
Quintile 1 (poorest)	2.09	1.52-	2.88	1.14	0.83-	1.57	1.47	1.24-	1.75
Quintile 2	1.84	1.39-	2.45	1.07	0.83-	1.38	1.26	1.03-	1.54
Quintile 3	1.73	1.26-	2.38	1.22	0.95-	1.55	1.22	0.99-	1.51
Quintile 4	1.24	0.90-	1.70	1.14	0.91	1.44	1.07	0.86-	1.32
Quintile 5 (wealthiest)	1.00	(signif. trend)		1.00	-		1.00	(no signif. trend)	
Has a contract	-	-		0.75	0.63-	0.88	-	-	
Temporary work	-	-		1.32	1.12-	1.55	-	-	
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	(signif. trend)		1.00	(signif. trend)		1.00	(signif. trend)	
Sub-standard	2.50	1.89-	3.31	0.01	0.008-	0.04	0.17	0.05-	
Unfit	7.05	3.40-	11.46	0.04	0.001-	0.20	0.03	0.02-	0.15
Sanitary Index (deficient=0)	0.01	0.001-	0.02	2.54	1.86-	7.55	12.92	2.57-	64.52
Overcrowded household (Townsend):	2.26	1.62-	3.13	0.01	0.001-	0.03	0.07	0.01-	0.41
HAI	-	-		2.18	1.18-	4.02	8.74	3.67-	20.08
CMI	3.28	1.28-	11.10	2.75	1.36-	5.55	0.09	0.001-	0.20
<b>ACCESS TO HEALTH CARE:</b>									
Type of provision:									
Private	1.00	-		1.00	(no signif. trend)		1.00	-	
Other	0.60	0.26-	1.32	0.31	0.13-	0.71	1.36	0.46-	4.10
Public with some co-payment	0.74	0.44-	1.26	0.69	0.37-	1.27	1.38	0.52-	3.61
Public 100% free	1.23	0.72-	2.08	1.28	0.70-	2.35	1.75	0.66-	4.59
None/don't know	0.46	0.25-	0.84	0.51	0.21-	1.01	0.93	0.30-	2.84
Use of cervical cancer screening service	-	-		0.67	0.57-	0.77	0.94	0.78-	1.15
Mean attentions received preventive health care	-	-		1.08	1.05-	1.11	1.02	0.99-	1.05

**Table A10.6** Odds Ratio (OR) of presenting each type of disability in the **International Immigrant Population**, adjusted by socio-demographics, social position and material conditions. CASEN survey, 2006 (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Visual		Hearing		Speaking		Physical		Learning		Psychiatric	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
<b>CAUSES OF DISABILITY:</b>												
Birth disability	1.00	-	1.00	-	1.00	-	1.00	-	1.00	(signif. trend)	1.00	-
Disease	0.84	0.05- 13.9	3.00	0.07- 11.3	3.00	0.07- 11.30	2.18	0.26- 18.3	46.62	2.59- 83.60	0.05	0.005 6.34
Accident	3.76	0.18- 76.6	0	-	0	-	1.48	0.08- 25.1	3.52	1.56- 79.11	0	-
Other non stated	0.70	0.02- 23.5	0	-	0	-	0	-			0	-
<b>DEMOGRAPHICS:</b>												
Age	1.01	0.99- 1.04	1.01	0.97- 1.06	1.02	0.98- 1.07	1.04	0.99- 1.10	0.93	0.82- 1.06	1.06	1.01- 1.11
Sex (female=1)	1.05	0.22- 4.87	1.16	0.13- 9.69	0	-	0.86	0.18- 3.99	0.25	0.04- 1.39	0.72	0.04- 12.45
Marital status:												
Single	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Married	0.96	0.08- 1.37	3.12	0.22- 43.3	0	-	0.38	0.10- 1.43	0	-	0	-
Divorced	4.14	0.46- 36.57	16.8	0.62- 45.2	0	-	0.17	0.01- 1.70	0	-	0	-
Widow	0	-	2.71	0.04- 15.9	0	-	0.16	0.008 3.35	0	-	0	-
Ethnicity: any	0.34	0.08- 1.37	1.03	0.06- 16.6	0	-	1.17	0.22- 6.18	0.19	0.01- 1.93	0	-
Zone: rural=1	0.96	0.46- 36.57	1.52	0.43- 5.32	0	-	3.93	1.31- 11.7	8.50	1.54- 47.2	3.19	0.08- 36.92
Area:												
Northern	1.00	(signif. trend)	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Central	4.06	1.10- 14.95	0.26	0.01- 4.65	0	-	1.40	0.29- 6.70	0	-	0	-
Southern	9.89	2.35- 41.66	0.14	0.08- 2.40	0	-	1.20	0.18- 7.73	0	-	0	-
Number of household members	1.21	1.01- 1.44	0.53	0.29- 0.96	0.75	0.63- 0.90	1.20	0.90- 1.60	1.16	0.81- 1.65	0.70	0.53- 0.92

<b>SOCIOECONOMIC DETERMINANTS:</b>												
Educational level:												
No education	0	-	1.67	0.28- 9.69	0	-	3.30	0.25- 45.80	0	-	0	-
Primary School	0	-	0.27	0.05- 1.47	0	-	8.11	0.87- 75.9	0	-	0	-
High School	3.69	0.34- 39.77	0.35	0.05- 1.32	0	-	19.90	1.98- 99.9	0	-	0	-
Technical level	4.63	0.56- 38.08	-	-	0	-	1.65	0.08- 31.25	0	-	0	-
University level	1.00	-	1.00	-	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	-
Household income:												
Quintile 1 (poorest)	2.68	0.06- 11.23	1.17	0.16- 8.45	0	-	3.40	0.45- 25.19	0	-	0	-
Quintile 2	0.65	0.04- 9.85	0.40	0.04- 0.48	0	-	32.39	4.25- 230.9	0	-	0	-
Quintile 3	0	-	0.60	0.06- 0.66	0	-	0.50	0.05- 0.95	0	-	0	-
Quintile 4	0	-	5.51	0.81- 35.5	0	-	5.10	0.50- 51.47	0	-	0	-
Quintile 5 (wealthiest)	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	-
Type of occupation:												
Head/ manager	1.00	(signif. trend)	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Employee private system	19.94	1.53- 29.41	0	-	0	-	0	-	0	-	0	-
Employee public system	13.77	1.46- 22.29	0	-	0	-	0	-	0	-	0	-
Self employed	0	-	0	-	0	-	0	-	0	-	0	-
Domestic service	0	-	0	-	0	-	0	-	0	-	0	-
Has a contract	2.01	0.29- 13.91	0	-	0	-	0	-	0	-	0	-
Temporary work	0.23	0.01- 4.06	0	-	0	-	0	-	0	-	0	-
<b>MATERIAL DETERMINANTS:</b>												
Quality of the household:												
Acceptable	1.00	-	1.00	-	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	-
Sub-standard	2.49	0.19- 31.97	0.62	0.002 1.89	4.56	0.03- 44.7	0.35	0.04- 3.13	1.43	0.56- 3.59	2.61	0.01- 35.42
Unfit	8.11	0.01- 19.90	9.68	0.001 6.35	0	-	0.03	0.001 0.94	0	-	0	-
Sanitary Index (deficient=0)	0.03	0.001 0.90	0.02	0.001 6.49	0	-	1.65	0.07- 38.8	0.64	0.10- 4.04	0.07	0.008 6.80
Overcrowded household (Townsend):	2.14	1.13- 4.07	0.36	0.001 8.57	0.09	0.03- 0.27	0.97	0.44- 2.14	1.05	0.51- 2.15	0.78	0.04- 13.03



HAI	0.01	0.002	13.71	0.03	0.005	1.80	0	-	0.005	0.001	26.3	0.38	0.001	1.45	0.008	0.0001	4.52	
CMI	6.34	0.06-	13.12	3.90	0.003	4.38	0	-	1.47	0.03-	6.06	2.03	0.002	8.25	1.20	0.01-	8.98	
<b>ACCESS TO HEALTH CARE:</b>																		
Type of provision:																		
Private	1.00	(signif. trend)		1.00	(no signif. trend)		1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Other	0	-		0	-		0	-	0	-	0	-	0	-	0	-	0	-
Public with some co-payment	2.28	1.37- 13.87		4.95	0.25- 9.57		0	-	0	-	0	-	0	-	0	-	0	-
Public 100% free	5.10	3.13 8.13		1.21	0.78- 5.97		0	-	0	-	0	-	0	-	0	-	0	-
None/don't know	0	-		5.44	1.33- 8.96		0	-	0	-	0	-	0	-	0	-	0	-
Use of cervical cancer screening service	0.15	0.009 2.48		8.59	0.10- 7.06		0	-	0	-	0	-	0	-	0	-	0	-
Mean attentions received preventive health care	0.02	0.001 0.46		1.81	1.22- 2.69		0	-	0	-	0	-	0	-	0	-	0	-
<b>MIGRATION STATUS</b>																		
Years living in the country:																		
Less than a year	1.00	-		1.00	-		1.00	-	1.00	(no signif. trend)		1.00	-	1.00	-	1.00	-	
1 to 5 years	0.16	0.01- 1.84		3.97	0.41- 37.6		-	-	-	-	-	0.21	0.01- 2.52		-	-	-	-
6 to 10 years	3.07	0.43- 21.65		0	-		-	-	0.41	0.05- 2.94		8.58	0.51- 14.20		-	-	-	-
11 to 15 years	0	-		0.43	0.03- 6.27		-	-	0.02	0.002- 0.28		1.01	0.01- 9.83		-	-	-	-
16 to 20 years	0.72	0.06- 7.72		0	-		-	-	0.20	0.02 2.00		1.43	0.08- 23.92		-	-	-	-
21 or more years	1.47	0.22- 9.71		8.61	0.38- 19.1		-	-	0.32	0.04- 2.45		1.25	0.04- 34.20		-	-	-	-
Country of origin:																		
Peru	0	-		1.70	0.29- 10.0		-	-	13.98	2.53- 85.32		-	-	-	-	5.38	0.96- 44.95	
Argentina	0.61	0.14- 2.57		0.08	0.008- 0.08		-	-	9.55	1.29- 70.74		-	-	-	-	-	-	-
Bolivia	0.22	0.05- 0.99		0.63	0.07- 5.38		-	-	4.80	0.75- 31.09		-	-	-	-	-	-	-
Ecuador	0.92	0.07- 11.12		1.78	0.10- 31.3		-	-	-	-	-	-	-	-	46.35	5.65- 78.90		

**Table A10.7** Odds Ratio (OR) of presenting each type of disability in the **Chilean-born**, adjusted by socio-demographics, social position and material conditions. CASEN survey, 2006 (weighted sample size 16 130 746) (statistical significant values appear in grey shade in the table)

Variables	Visual		Hearing		Speaking		Physical		Cognitive		Psychiatric	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
<b>CAUSES OF DISABILITY:</b>												
Birth disability	1.00	(signif. trend)	1.00	(no signif. trend)	1.00	(no signif. trend)	1.00	(signif. trend)	1.00	(signif. trend)	1.00	(signif. trend)
Disease	1.47	1.21- 1.79	1.04	0.80- 1.35	0.52	0.32- 0.77	1.55	1.29- 1.86	0.24	0.19- 0.31	3.07	2.04- 4.63
Accident	0.72	0.54- 0.95	1.12	0.83- 1.53	0.67	0.32- 1.40	4.27	3.41- 5.34	0.22	0.16- 0.35	1.12	0.63- 1.96
Other non stated	2.35	1.89- 2.92	1.44	1.08- 1.92	0.67	0.37- 1.24	0.49	0.37- 0.96	0.16	0.11- 0.22	4.46	2.89- 6.98
<b>SOCIO-DEMOGRAPHICS:</b>												
Age	1.03	1.02- 1.04	1.05	1.04- 1.06	1.01	0.99- 1.02	1.05	1.04- 1.06	1.03	1.02- 1.04	1.02	1.01- 1.03
Sex (female=1)	1.22	1.04- 1.23	0.66	0.57- 0.76	0.48	0.35- 0.68	1.01	0.91- 1.11	0.74	0.63- 0.87	1.06	0.82- 1.37
Marital status:												
Single	1.00	-	1.00	(signif. trend)	1.00	(no signif. trend)	1.00	(signif. trend)	1.00	(signif. trend)	1.00	(signif. trend)
Married	0.98	0.87- 1.11	0.75	0.61- 0.91	0.39	0.25- 0.60	0.57	0.50- 0.64	0.07	0.05- 0.09	0.31	0.22- 0.44
Divorced	1.17	0.95- 1.44	0.65	0.46- 0.93	0.63	0.24- 1.62	0.85	0.69- 1.05	0.10	0.06- 0.17	1.22	0.76- 1.97
Widow	0.87	0.72- 1.04	0.93	0.43- 1.20	0.98	0.47- 2.05	0.64	0.57- 0.77	0.18	0.13- 0.26	0.34	0.19- 0.61
Ethnicity: any	1.21	1.01- 1.44	1.28	0.94- 1.74	1.50	0.93- 2.44	0	-	1.10	0.84- 1.44	0.90	0.55- 1.46
Zone: rural=1	0.81	0.74- 0.90	1.10	0.96- 1.26	0.79	0.56- 0.60	1.29	1.18- 1.41	1.38	1.20- 1.59	0.63	0.43- 0.80
Area:												
Northern	1.00	-	1.00	-	1.00	-	1.00	(signif. trend)	1.00	-	1.00	-
Central	0.90	0.70- 1.07	0.84	0.66- 1.08	0.67	0.41- 1.12	1.23	1.01- 1.50	1.24	0.92- 1.68	1.55	0.97- 2.47
Southern	0.85	0.71- 1.01	0.79	0.61- 1.01	0.72	0.43- 1.21	1.43	1.17- 1.74	1.31	0.97- 1.76	1.37	0.84- 2.22
Number of household members	0.97	0.94- 1.004	0.98	0.94- 1.02	0.95	0.86- 1.05	0.93	0.90 0.96	1.07	1.02- 1.12	1.01	0.93- 1.07
<b>SOCIOECONOMIC DETERMINANTS:</b>												
Educational level:												
No education	1.12	0.62- 2.04	4.60	1.22- 17.2	10.1	1.94- 85.4	0.94	0.35- 2.55	23.0	5.74- 84.75	0.24	0.03- 1.87
Primary School	1.41	1.22- 1.97	2.02	0.94- 4.37	3.48	1.23- 10.5	1.29	0.57- 2.93	8.68	1.88- 34.00	0.54	0.11- 2.53
High School	1.31	0.96- 1.78	1.42	0.69- 2.95	1.38	1.08- 8.89	0.96	0.44- 2.11	6.85	0.96 18-96	0.48	0.12- 1.90
Technical level	1.11	0.81- 1.52	1.37	0.62- 3.02	1.67	1.12- 2.84	1.23	0.51- 2.96	6.06	0.65- 16.20	0.73	0.13- 3.93

University level	1.00	(no signif. trend)	1.00	(no signif. trend)	1.00	(signif. trend)	1.00	-	1.00	(signif. trend)	1.00	-
Household income:												
Quintile 1 (poorest)	1.17	0.84- 1.63	1.11	0.69- 1.78	2.08	0.68- 6.38	2.26	1.18- 4.34	0.53	0.21- 1.31	0.42	0.11- 1.62
Quintile 2	1.26	0.97- 1.64	0.79	0.49- 1.26	1.30	0.44- 3.82	1.28	0.72- 2.28	0.35	0.13- 0.75	1.05	0.32- 3.23
Quintile 3	1.24	0.96- 1.62	1.02	0.62- 1.68	0.50	0.16- 1.55	1.58	0.39- 2.79	0.22	0.07- 0.67	1.72	0.49- 5.93
Quintile 4	1.12	0.88- 1.43	1.20	0.76- 1.88	0.57	0.18- 1.78	1.26	0.76- 2.11	0.31	0.13- 0.74	0.94	0.34- 2.56
Quintile 5 (wealthiest)	1.00	-	1.00	-	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	-
Type of occupation:												
Head/ manager	1.00	-	1.00	-	1.00	(no signif. trend)	1.00	-	1.00	-	1.00	-
Employee private system	1.54	0.97- 2.44	1.12	0.60- 2.07	12.0	1.12- 28.4	0	-	-	-	0	-
Employee public system	1.02	0.64- 1.67	1.27	0.60- 2.66	3.05	0.28- 39.3	0.91	0.39- 2.12	3.72	0.76- 18.24	2.24	0.41- 12.16
Self employed	1.16	0.73- 1.84	0.98	0.53- 1.82	5.47	0.47- 42.6	0.88	0.41- 1.89	1.64	0.51- 5.32	1.72	0.51- 5.63
Domestic service	1.12	0.66- 1.89	1.72	0.70- 4.20	4.04	0.14- 85.4	0	-	-	-	0	-
Has a contract	0.81	0.65- 1.02	0.68	0.48- 0.96	0.45	0.15- 1.33	0.88	0.55- 1.19	0.34	0.18- 0.61	0.46	0.22- 0.97
Temporary work	1.28	1.04- 1.58	1.76	1.25- 2.48	1.09	0.40- 2.96	1.16	0.81- 1.64	0.57	0.30- 1.09	4.38	1.97- 9.74

<b>MATERIAL DETERMINANTS:</b>													
Quality of the household:													
Acceptable	1.00	-		1.00	-		1.00	-		1.00	-		1.00 (no signif. trend)
Sub-standard	0.95	0.78- 1.14		1.01	0.81- 1.26		1.47	0.81- 2.65		1.16	0.99- 1.36		0.91 0.71- 1.12 0.71 0.48- 1.07
Unfit	1.09	0.79- 1.73		0.67	0.38- 1.18		1.90	0.41- 8.75		1.16	0.80- 1.69		1.47 0.86- 2.49 0.30 0.10- 0.87
Sanitary Index (deficient=0)	1.28	0.98- 1.67		1.23	0.96- 1.68		1.10	0.60- 2.02		1.01	0.82- 1.22		1.56 1.14- 2.15 1.63 0.97- 2.74
Overcrowded household (Townsend):	0.92	0.78- 1.08		0.99	0.82- 1.09		0.96	0.71 1.30		0.89	0.76- 1.04		0.91 0.71- 1.04 0.65 0.46- 0.91
HAI	1.87	0.78- 4.70		1.73	0.16- 5.16		1.35	0.16- 11.3		1.21	0.50- 2.50		2.79 1.11- 7.00 6.52 0.95- 44.25
CMI	0.51	0.21- 1.32		0.54	0.18- 1.62		0.60	0.02- 5.58		0.82	0.36- 1.86		0.18 0.07- 0.46
<b>ACCESS TO HEALTH CARE:</b>													
Type of provision:													
Private	1.00	-		1.00	-		1.00	-		1.00 (no signif. trend)		1.00 (no signif. trend)	1.00 (no signif. trend)
Other	0.44	0.18- 1.06		1.38	0.18- 10.2		-	-		0.61	0.22- 1.66		0.97 0.17- 5.60 14.45 1.20- 173.2
Public with some co-payment	0.85	0.41- 1.77		3.09	0.56- 16.7		-	-		0.54	0.27- 1.17		0.31 0.06- 1.45 13.68 1.32- 102.6
Public 100% free	1.04	0.50- 2.16		3.76	0.69- 20.4		-	-		0.83	0.39- 1.77		1.20 0.26- 5.52 27.95 3.79- 206.3
None/don't know	0.72	0.31- 1.67		3.90	0.62- 24.5		-	-		0.28	0.10- 0.74		0.05 0.008- 0.38 11.43 1.27- 102.2
Use of cervical cancer screening service	1.08	0.90- 1.30		1.12	0.69- 1.57		1.28	0.47- 3.44		0.76	0.60- 0.95		0.20 0.13- 0.30 1.14 0.71- 1.85
Mean attentions received preventive health care	1.04	1.01- 1.08		0.98	0.91- 1.06		1.01	0.91- 1.11		1.04	1.01- 1.07		0.99 0.93- 1.05 1.06 1.03- 1.10

**Table A10.8** Final adjusted Odds Ratio (OR) (by socio-demographics) of presenting **any disability** in the Chilean-born, excluding other health problems, CASEN, 2006 (weighted sample size= 16 130 743) (statistical significant values appear in grey shade in the table)

Social determinants	Any disability Chilean-born	
	OR	95% CI
Age	1.05	1.05-1.06
Age2	0.99	0.99-0.99
Zone (rural=1)	0.70	0.66-0.74
Number of household members	0.95	0.93-0.97
Marital status:		
Single	1.00	(signif. trend)
Married	0.51	0.47-0.56
Divorced	0.70	0.62-0.80
Widow	0.63	0.56-0.70
Educational level:		
No education	2.20	1.53-3.17
Primary School	1.75	1.33-2.29
High School	1.24	0.99-1.55
Technical level	1.10	0.90-1.35
University level	1.00	(signif. trend)
Household income:		
Quintile 1 (poorest)	1.80	1.59-2.05
Quintile 2	1.43	1.25-1.64
Quintile 3	1.28	1.12-1.46
Quintile 4	1.09	0.96-1.23
Quintile 5 (wealthiest)	1.00	(signif. trend)

Type of provision:		
Private	1.00	(no signif. trend)
Public 100% free	1.70	1.30-2.11
Public with some co-payment	1.16	0.94-1.44
None/don't know	0.95	0.47-1.26
Other	0.85	0.66-1.11
CMI	0.97	0.96-0.98
Interaction sex*education	0.96	0.94-0.98

**Table A10.9** Prevalence of **health care received for a chronic disease or cancer in the last year** of the Chilean-born population and the IIP, CASEN survey 2006 (weighted sample size= 16 130 743 and 154 431, respectively)

Dimensions	Chilean-born Population		International immigrants living in Chile	
	%	95% CI	%	95% CI
Any health care attention from chronic condition or cancer <sup>a</sup>	5.85	5.68-6.02	3.90	2.68-5.63

<sup>a</sup>p<0.0001 when comparing the Chilean-born population with the international immigrant population

**Table A10.10** Prevalence of **any health care received for a chronic disease or cancer in the last year** in the IIP stratified by country of origin and years living in the country, CASEN survey 2006 (weighted population size included: 154 431)

Country of origin	Any health care received for a chronic disease or cancer in the international immigrant population	
	%	95% CI
Peru	0.47	0.23-0.95
Argentina	0.84	0.46-1.51
Bolivia	0.16	0.02-0.93
Ecuador	0.10	0.003-0.33
Other	2.36	1.35-4.10
Total	3.92	2.70-5.67
Years living in the country	Any health care received for a chronic disease or cancer in the international immigrant population	
	%	95% CI
Less than a year	1.29	0.55-2.99
1 to 5 years	0.36	0.11-1.20
6 to 10 years	0.45	0.21-0.97
11 to 15 years	0.40	0.14-1.13
16 to 20 years	0.17	0.05-0.52
21 or more years	1.22	0.69-2.16
Total	3.90	2.69-5.64



**Table A10.11** Adjusted Odds Ratio (OR) (by socio-demographic and socioeconomic variables) of receiving **any care from a chronic condition or cancer in the past year** in Chile, a comparison between the Chilean-born population and the International Immigrant Population (IIP) (weighted sample size 16 130 743 and 154 431, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	The Chilean-born population		The International Immigrants	
	OR	95% CI	OR	95% CI
<b>DEMOGRAPHICS:</b>				
Age <sup>b</sup>	1.06	1.05-1.07	1.05	1.02-1.08
Sex (female=1) <sup>b</sup>	1.89	1.58-2.24	2.78	1.26-6.71
Marital status:				
Single	1.00	(signif. trend)	1.00	-
Married <sup>b</sup>	1.36	1.11-1.66	3.76	0.25-54.76
Divorced <sup>b</sup>	1.51	1.15-2.00	5.20	0.15-17.21
Widow <sup>b</sup>	1.30	0.90-1.87	-	-
Ethnicity: any	4.76	1.74-13.03	0.08	0.008-0.07
Type of ethnicity:				
Aymara	1.00	(signif. trend)	1.00	-
Atacameño	0.13	0.01-0.93	-	-
Mapuche	0.12	0.04-0.36	-	-
Others	0.14	0.03-0.66	-	-
Zone:				
Rural=1	0.89	0.73-1.08	0.33	0.04-26.28
Area:				
Northern	1.00	(no signif. trend)	1.00	-
Central	1.25	0.96-1.62	0.57	0.21-1.52
Southern	1.43	1.09-1.88	0.93	0.21-1.52
Number of household members:				
One member	1.00	-	1.00	-
2 to 4 members <sup>b</sup>	0.87	0.62-1.22	1.82	0.09-3.50
5 to 7 members <sup>b</sup>	0.80	0.56-1.14	8.14	0.04-16.13
8 or more members	0.58	0.35-0.96	-	-

<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education <sup>b</sup>	0.84	0.51-1.36	0.03	0.001-0.89
Primary School <sup>b</sup>	1.24	0.95-1.63	0.10	0.05-1.90
High School <sup>b</sup>	1.01	0.79-1.30	0.78	0.23-2.62
Technical level <sup>b</sup>	1.02	0.80-1.36	0.48	0.08-2.85
University level	1.00	-	1.00	-
Household income, per capita: <sup>b</sup>				
Quintile 1 (poorest) <sup>b</sup>	1.02	0.76-1.36	2.10	0.50-7.40
Quintile 2 <sup>b</sup>	1.40	1.14-1.77	1.98	0.41-9.48
Quintile 3 <sup>b</sup>	1.13	0.91-1.39	2.48	0.48-12.68
Quintile 4 <sup>b</sup>	1.20	0.99-1.45	4.06	1.53-10.73
Quintile 5 (wealthiest)	1.00	(no signif. trend)	1.00	(no signif. trend)
Current worker <sup>b</sup>	0.52	0.38-0.72	-	-
Type of occupation:				
Head/ manager	1.00	(signif. trend)	1.00	-
Employee private system	-	-	-	-
Self employed <sup>b</sup>	-	-	-	-
Employee public system	0.77	0.63-0.93	-	-
Employee domestic service	0.69	0.53-0.91	-	-
Unemployed:				
Found a job and starts soon	1.00	-	1.00	(signif. trend)
Doesn't want to work	1.13	0.48-2.65	-	-
Can't find a job	0.82	0.35-1.89	1.68	1.15-3.13
Has an intermittent informal job	0.56	0.21-1.50	-	-
Other reason, not stated <sup>b</sup>	1.06	0.46-2.46	2.14	1.07-5.28
Inactive:				
Student	1.00	-	1.00	(signif. trend)
Housewife	1.01	0.44-2.30	2.07	1.88-4.87
Retired <sup>b</sup>	1.22	0.53-2.80	2.88	1.08-4.41
Ill	2.27	0.99-5.20	2.29	1.03-7.11

Has a contract <sup>b</sup>	0.88	0.72-1.22	-	-
Type of contract: Temporary	1.11	0.94-1.29	-	-
Workday dedication: Full time <sup>b</sup>	0.85	0.71-1.07	-	-
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard <sup>b</sup>	0.93	0.80-1.08	0.78	0.15-2.01
Unfit <sup>b</sup>	0.76	0.37-1.57	0.63	0.06-6.01
Sanitary Index (deficient=0)	1.23	1.01-1.50	3.17	0.07-12.66
Overcrowded household (Townsend): <sup>b</sup>	1.05	0.88-1.25	0.55	0.02-12.54
HAI	1.03	1.007-1.05	0.76	0.51-1.12
CMI	1.03	1.01-1.04	1.14	1.04-1.30
<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	-	1.00	-
Public 100% free <sup>b</sup>	0.71	0.54-1.04	-	-
Public with some co-payment <sup>b</sup>	1.10	0.79-1.51	0.14	0.01-10.40
None/don't know <sup>b</sup>	1.20	0.87-1.65	0.06	0.008-4.57
Other	1.27	0.65-2.50	-	-
Use of cervical cancer screening service	1.17	1.06-1.30	-	-
Number of preventive health care attentions received, categories:				
1 or 2 health controls	1.00	-	1.00	-
3 or 4 health controls	1.13	0.99-1.30	-	-
5 or 6 health controls	1.12	0.81-1.55	-	-
7 or more health controls	0.96	0.52-1.75	-	-

Type of last preventive health care:				
Well baby care	1.00	(no signif. trend)	1.00	(no signif. trend)
Antenatal care <sup>b</sup>	0.24	0.09-0.62	22.57	0.87-59.81
Gynaecologic control	1.60	0.67-3.82	3.07	1.70-55.41
Chronic disease control	0.34	0.14-0.84	37.41	0.31-44.33
Preventive adult and elderly	0.79	0.33-1.89	-	-
Other control attention	0.77	0.32-1.86	11.50	3.02-44.08
<b>MIGRATION STATUS (for the total Chilean population):</b>				
International immigrant (any) <sup>b</sup>	0.82	0.55-1.22	-	-
International immigrant (missing values)	0.87	0.56-1.36	-	-
Years living in the country:				
Less than a year	-	-	1.00	-
1 to 5 years	-	-	0.97	0.24-3.25
6 to 10 years	-	-	1.38	0.35-5.41
11 to 15 years	-	-	3.16	0.79-12.63
16 to 20 years <sup>b</sup>	-	-	0.51	0.08-3.13
21 or more years <sup>b</sup>	-	-	0.68	0.13-2.68
Country of origin:				
Peru	-	-	0.40	0.19-0.83
Argentina	-	-	0.57	0.30-1.17
Bolivia	-	-	0.62	0.10-3.49
Ecuador	-	-	0.52	0.15-1.74
Internal migrant (any): <sup>b</sup>	1.11	1.04-1.18	-	-
<b>MULTIPLICATIVE INTERACTIONS: no interactions found</b>				

**Table A10.12** Odds Ratio (OR) of presenting any chronic disease or cancer in the IIP **by age groups**, adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 154 431, respectively) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.72	0.59-	0.88	1.09	1.02-	1.10	0.99	0.90-	1.98
Sex (female=1)	-	-		4.35	1.39-	8.65	0.16	0.02-	2.12
Marital status:									
Single	1.00	-		1.00	-		1.00	-	
Married	-	-		0.54	0.15-	1.87	-	-	
Divorced	-	-		1.79	0.28-	11.89	-	-	
Widow	-	-		1.19	0.14-	10.01	-	-	
Ethnicity: any	-	-		1.03	0.87	2.54	0.02	0.01-	0.22
Zone: Rural=1	-	-		1.03	0.32-	3.76	2.45	0.47-	12.69
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	-	-		0.40	0.19-	1.56	0.25	0.07-	2.45
Southern	-	-		0.50	0.12	4.76	0.87	0.18-	5.73
Number of household members	0.47	0.23-	0.97	0.99	0.79	1.32	1.87	1.14-	7.65
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		-	-		1.79	0.78-	4.43
Primary School	-	-		0.18	0.01-	1.23	-	-	
High School	-	-		0.17	0.03-	1.32	1.36	0.15-	3.21
Technical level	-	-		0.38	0.02-	2.54	0.67	0.10-	4.46
University level	1.00	-		1.00	-		1.00	-	

Household income:								
Quintile 1 (poorest)	-	-	0.50	0.05	1.42	5.59	0.62-	11.23
Quintile 2	-	-	-	-		0.07	0.01-	4.32
Quintile 3	-	-	1.60	0.30-	4.87	1.40	0.65-	4.32
Quintile 4	-	-	0.49	0.54-	2.43	11.07	0.82-	21.34
Quintile 5 (wealthiest)	1.00	-	1.00	-		1.00	-	
Has a contract	-	-	1.78	0.36-	8.97	-	-	
Temporary work	-	-	1.89	0.49-	7.85	-	-	
Low SES cluster	-	-	0.83	0.45-	2.12	11.43	1.21-	34.21
Medium SES cluster	-	-	0.52	0.12-	3.21	0.65	0.10-	5.43
High SES cluster	1.00	-	1.00	-		1.00	-	(signif trend)
<b>MATERIAL DETERMINANTS:</b>								
Quality of the household:								
Acceptable	1.00	-	1.00	-		1.00	-	
Sub-standard	-	-	1.13	0.43-	2.43	0.87	0.02-	28.69
Unfit	-	-	-	-		3.38	0.03-	12.43
Sanitary Index (deficient=0)	-	-	0.05	0.35-	2.11	1.13	0.06-	3.45
Overcrowded household (Townsend):	0.08	0.03-	5.54	1.47	1.03-	2.09	4.93	0.43-
HAI	-	-	0.06	0.002-	2.12	1.46	0.09-	4.56
CMI	-	-	15.06	0.06-	34.22	0.45	0.05-	4.89
<b>ACCESS TO HEALTH CARE:</b>								
Type of provision:								
Private	1.00	-	1.00	-		1.00	-	
Other	-	-	-	-		-	-	
Public with some co-payment	-	-	4.64	0.54-	23.43	-	-	
Public 100% free	-	-	-	-		-	-	
None/don't know	-	-	-	-		-	-	
Use of cervical cancer screening	-	-	1.18	0.20-	2.45	-	-	
Mean attentions preventive health care	-	-	0.45	0.20-	0.98	2.98	0.54-	5.43
<b>MIGRATION STATUS</b>								
Years living in the country:								
Less than a year	1.00	-	1.00	-		1.00	-	

1 to 5 years	-	-	0.49	0.15-	2.11	-	-	
6 to 10 years	-	-	1.26	0.39-	4.32	1.23	0.98-	5.64
11 to 15 years	-	-	1.65	0.33-	8.65	3.54	0.03-	12.43
16 to 20 years	-	-	0.49	0.08-	8.54	5.65	0.09-	13.87
21 or more years	-	-	0.29	0.05	4.32	7.86	0.12-	14.54
Country of origin:								
Peru	-	-	0.62	0.20-	1.91	0.06	0.02-	0.97
Argentina	-	-	1.10	0.34-	3.21	2.85	0.67-	7.65
Bolivia	-	-	0.89	0.12-	3.76	0.30	0.03-	0.93
Ecuador	-	-	0.62	0.39-	7.98	-	-	

**Table A10.13** Odds Ratio (OR) of presenting any chronic condition or cancer in the **Chilean-born population by age groups**, adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 16 130 473) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.88	0.87-	0.90	1.07	1.06-	1.08	1.002	0.99-	1.01
Sex (female=1)	0.76	0.61-	0.93	1.90	1.76-	2.06	1.28	1.15-	1.45
Marital status:									
Single	1.00	-		1.00	(signif. trend)		1.00	-	
Married	-	-		1.31	1.34-	1.50	1.27	1.03-	1.56
Divorced	-	-		1.37	1.11-	1.55	1.36	1.01-	1.83
Widow	-	-		1.95	1.13-	1.65	1.29	1.04-	1.59
Ethnicity: any	1.08	0.78-	2.34	0.87	0.74-	1.02	0.89	0.70-	1.15
Zone: Rural=1	0.49	0.39-	0.97	0.84	0.78-	0.91	0.81	0.73-	0.90
Area:									
Northern	1.00	(no signif. trend)		1.00	-		1.00	-	
Central	1.30	0.90-	1.87	1.06	0.93-	1.22	1.19	0.97-	1.46
Southern	1.58	1.17-	3.21	1.09	0.95-	1.25	1.15	0.93-	1.41
Number of household members	0.94	0.88-	1.003	0.98	0.96-	1.007	0.99	0.96-	1.01
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		1.007	0.79-	1.27	1.36	0.95-	1.94
Primary School	-	-		1.25	1.06-	1.48	1.47	1.05-	2.05
High School	-	-		1.12	0.95-	1.32	1.33	0.94-	1.87
Technical level	-	-		1.12	0.92-	1.35	1.35	0.75-	2.44
University level	1.00	-		1.00	(no signif. trend)		1.00	(no signif. trend)	
Household income:									
Quintile 1 (poorest)	0.62	0.43-	0.89	1.28	1.13-	1.45	1.27	1.07-	1.52



Quintile 2	0.70	0.50-	0.98	1.26	1.10-	1.43	1.22	0.99-	1.49
Quintile 3	0.64	0.45-	0.92	1.15	1.01-	1.31	1.19	0.96-	1.48
Quintile 4	0.74	0.52-	1.06	1.16	1.02-	1.31	1.09	0.86-	1.38
Quintile 5 (wealthiest)	1.00	(signif. trend)		1.00	(signif. trend)		1.00	(no signif. trend)	
Has a contract	-	-		0.87	0.72-	1.04	-	-	
Temporary work	-	-		1.13	0.97-	1.32	-	-	
<b>MATERIAL SOCIOECONOMIC DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	3.51	2.37-	5.19	1.39	0.57-	3.34	2.24	0.57-	8.84
Unfit	1.14	1.07-	4.40	1.68	0.28-	10.08	4.93	0.31-	77.44
Sanitary Index (deficient=0)	0.19	0.07-	0.99	0.78	0.24-	2.46	0.43	0.07-	2.54
Overcrowded household (Townsend):	1.60	1.005	2.56	1.75	0.51-	5.96	3.16	0.47-	21.11
HAI	0.05	0.001	1.02	0.12	0.005-	30.45	0.07	0.02-	8.45
CMI	8.94	0.54-	14.54	8.38	0.03-	22.41	1.44	0.02-	38.22
<b>ACCESS TO HEALTH:</b>									
Type of provision:									
Private	1.00	(no signif. trend)		1.00	(no signif. trend)		1.00	-	
Other	1.92	0.86-	4.30	0.98	0.54-	1.77	0.63	0.20-	1.92
Public with some co-payment	1.85	0.82-	4.16	0.95	0.52-	1.73	0.69	0.24-	1.94
Public 100% free	2.56	1.09-	6.01	0.47	0.24-	0.89	0.36	0.11-	1.16
None/don't know	1.62	0.58-	4.55	0.56	0.27-	1.18	0.71	0.24-	2.01
Use of cervical cancer screening service	-	-		1.05	0.92-	1.21	0.91	0.75-	1.09
Mean attentions received preventive health care	-	-		1.07	1.05-	1.10	1.03	1.003-	1.07

**Table A10.14** Adjusted Odds Ratio (OR) (by socio-demographics) of presenting **any chronic condition or cancer** in the Chilean-born population excluding other health problems, CASEN, 2006 (weighted sample size= 16 130 743) (statistical significant values appear in grey shade in the table)

Social determinants	Any disability Total population in Chile	
	OR	95% CI
Age	1.07	1.06-1.08
Age2	0.99	0.99-0.99
Zone (rural=1)	0.58	0.49-0.68
Number of household members	0.96	0.94-0.98
Educational level:		
No education	2.58	1.66-3.90
Primary School	1.82	1.36-2.43
High School	1.36	1.09-1.69
Technical level	1.05	0.89-1.27
University level	1.00	(signif. trend)
Type of provision:		
Private	1.00	(signif. trend)
Public 100% free	1.73	1.27-2.41
Public with some co-payment	1.52	1.18-1.95
None/don't know	1.55	0.94-2.54
Other	0.49	0.36-0.68
CMI	1.002	0.96-1.01
Interaction age*sex	1.002	0.99-1.03
Interaction educational level * type of provision	1.04	0.99-1.09

## **APPENDIX 10.2 DESCRIPTION OF THE EXPLORATION OF A COMBINED MEASURE OF HEALTH STATUS**

### **10.2.1 Exploring the construction of a composite fixed scale: The number of health problems scale (NHP)**

With the purpose of obtaining a combined measure of health status in the Chilean population, a composite fixed scale was first explored. The five main health outcomes of this thesis (any health problem or accident in the last month, any medical attention in the past month, any emergency attention in the past month, any chronic disease or cancer in the last year, and any disability) were considered for use in the construction of a combined count variable: *the number of health problems* (NHP scale, range 0-5). Before creating this scale, internal reliability of the five variables considered for combination was explored. Reliability coefficient was tested by using Cronbach's alpha analysis. In order to measure the reliability for a set of two or more constructs, Cronbach's alpha is a commonly used method where alpha coefficient values range between 0 and 1 with higher values indicating higher reliability among the indicators (Hair et al., 1992). Hence, 1 is the highest value that can be achieved. In accordance with the Cronbach's alpha test, the reliability of the four variables considered to create the NHP scale is 0.35, significantly below the acceptable value for internal consistency of 0.70 (minimum of 0.5). Since there was no internal reliability between these variables, the NHP scale was not constructed.

### **10.2.2 Exploring a weighted index of health status: The health status index (HSI)**

*The methods used for the construction of this weighted index: exploratory factor analysis (EFA)*

A weighted combined index to integrate different health outcomes in a single measurement was also assessed, through exploratory factor analysis. For this, all continuous variables related to health status available in the CASEN survey were considered ([1] number of medical attentions received in the past month, [2] number of emergency attentions received in the past month, [3] number of specialist attentions received in the past 3 months, [4] number of mental attentions received in the 3 past months, [5] and the number of dental attentions received in the past 3 months). The last 2 outcomes were included in chapter 8 on access to and use of the Chilean health care system, but might also inform about the health status of the IIP and for that reason they were included in this broad analysis. Before presenting the final HSI a brief explanation of factor analysis and issues related to this method are presented in the following lines. Exploratory factor analysis was used in this chapter to identify the salient attributes that have an impact on the health status of the population living in Chile. Since factor analysis represents an analytical process of

transforming statistical data (as measurements) into linear combinations of variables, it is a meaningful statistical method used for combining a large number of data into a considerably smaller number of factors with a minimum loss of information (Hair et al., 1992; Hamilton 2004; Moser and Felton, 2007). It condenses the number of variables by describing combinations of them that contain most of the information and that, hopefully, admit meaningful interpretations for a multidimensional, latent or unobservable variable, such as global health status (Gorsuch, 1983; Hamilton, 2004; Moser and Felton, 2007). Before conducting EFA, internal reliability and sampling adequacy of the variables considered for EFA should be considered.

**Reliability coefficient:** The reliability coefficient of the variables included for EFA was tested using Cronbach's alpha analysis. In order to measure the reliability of a set of two or more constructs, Cronbach's alpha is a commonly used method where alpha coefficient values range between 0 and 1, with higher values indicating higher reliability among the indicators (Hair et al., 1992). Hence, 1 is the highest value that can be achieved.

**Construct validity:** The constructs validity is tested by applying the Kaiser–Mayer–Olkin (KMO) and the Bartlett's Test of Sphericity as measures of sampling adequacy. The KMO estimates the strength of association among variables and it helps to predict whether data are suitable to perform factor analysis. KMO is used to assess which variables to drop from the model due to multicollinearity. The value of KMO varies from 0 to 1, and KMO overall should be 0.60 or higher to perform factor analysis (Kaiser, 1974). If this is not achieved, then it is necessary to drop the variables with lowest anti image value until KMO overall rises above 0.60.

**Minimum loadings:** To determine the minimum loading necessary to include an item in its respective constructs, Hair et al. (1992) suggested that variables with loading greater than 0.30 are considered significant, loading greater than 0.40 more important, and loading 0.50 or greater are very significant. For this study, the general criterion was that items were accepted with a loading of 0.30 or greater.

#### *A description of the Global HIS obtained through EFA*

Different combinations of these five correlated variables were explored, and the one with the highest internal reliability and sampling adequacy was finally considered for EFA. The best combination for constructing the Global HSI included the following variables:

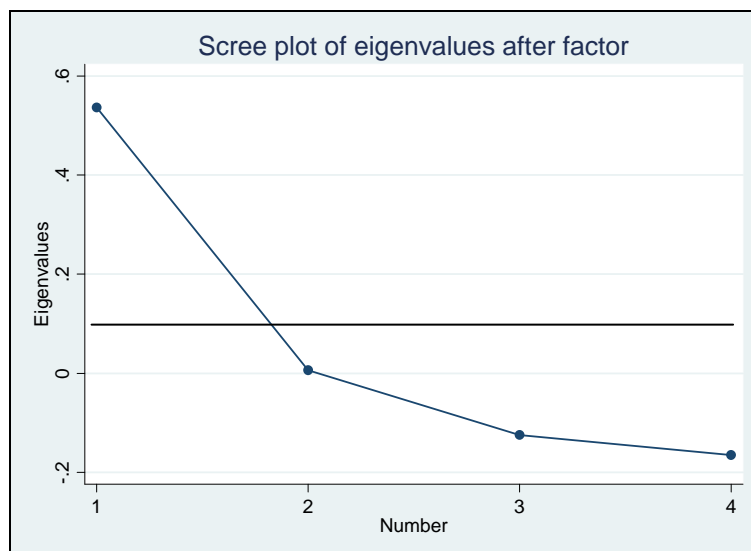
- [1] Number of medical attentions received in the past month,
- [2] Number of emergency attentions received in the past month,

[3] Number of mental attentions received in the past 3 months,

[4] Number of dental attentions received in the past 3 months

The combinations of these four variables showed a Cronbach's alpha of 0.67 for internal consistency, very close to the minimum recommended of 0.70 and a KMO test for sampling adequacy of 0.60. The Bartlett's Test of Sphericity showed similar results to the KMO ( $p < 0.001$ ). Therefore, these four variables provided the minimum required suitability for the EFA. The HSI was constructed through EFA using the principal factor method. In the principal factor method the factor loadings are computed using the squared multiple correlations as estimates of the communality. Other methods like principal component factor (communalities assumed to be 1), iterated principal factor (iterative estimation of communalities) or maximum-likelihood factor (equivalent to Rao's canonical-factor method for non normal data) were also explored and they did not modify the results obtained from the factor method (Hair and Anderson, 1995).

The first factor from the analysis was retained to develop the HSI (the single factor with an Eigenvalue above 1). The "predict regression" command after factor analysis creates the new variable through a regression. Bartlett's prediction method was used as a comparison and did not change the results produced by the regression method (Hair and Anderson 1995). All variables showed a factor loading over 0.30, with the exception of "number of mental health attentions received in the past three months" (factor loading of 0.17). This variable, however, was maintained in the EFA as its exclusion dropped the KMO value for sampling adequacy to below the minimum required of 0.60. The global HSI is a continuous variable with a range between -0.82 to 4.25. The higher the value of the score the worse the health status.

**Figure A10.1** Screeplot of the Global HSI after EFA, the CASEN survey 2006

**The global HSI does not have a normal distribution:** The global HSI is not normally distributed (Shapiro Wilk test  $p < 0.0001$ ; also see histogram Figure A10.8). This is relevant because the basic assumption of normal distribution must be met in order to conduct multiple regressions (Manning and Mullahy, 2001). Since this study uses a large dataset, it could be assumed that estimated mean values have a normal distribution and “normally distribution-based methods” could be considered adequate (such as ordinary least squares, OLS). However, there are at least two important reasons to reject this assertion. First, my study includes multiple subgroup analysis like the immigrant population in which numbers fall significantly. Second, for public health interpretation, the assumption that the mean equals the median might lead to an incorrect interpretation of results. For instance, the global HSI is skewed towards the right (similar to a gamma distribution) and the use of normally distribution-based OLS would not provide precise and robust estimations of those who are very sick (those with the highest scores of the index). The very sick group is the one that should be correctly represented and therefore more complex statistical methods should be used to assess this potential risk of bias in the final estimations.

To solve the non-normality problem there are two possible alternatives. First, *variable transformation* could be considered. This was explored and a squared-HSI will be used in this chapter for comparative analysis (log transformation did not fit as well as this type of transformation). Nonetheless, there is an important limitation to the transformation of variables and that is that the magnitude of the association cannot be directly used for interpretation and requires complex and potentially biased methods of re-transformation (Tukey, 1977; Briggs and Gray, 1998; Ai and Norton, 2000; Duan et al., 1983; Manning and Mullahy, 2001; Veazie et al., 2003). For this reason, a second alternative is usually more

appealing: the use of Generalised Linear Models (GLM) in which the estimated coefficients can be used for direct interpretation, despite the limitations of this statistical technique.

In GLMs a mean function (between the linear predictor and the mean) and a variance function (between the mean and variance on the original scale) are specified and the parameters are estimated given these structural assumptions (Blough et al., 1999; Diehr et al., 1999). This approach addresses linearity in response on the specified scale and accommodates skewness through variance weighting. Although misspecification of the variance function could lead to inefficiencies, the mean function estimates are usually robust (Manning and Mullahy, 2001). As the estimation is directly on the scale of raw data, unlike the transformation-based approaches, there is no need for back transformation. These models are widely used for modelling costs that have a Gamma distribution, which are very similar to the observed in the global HSI (Mihaylova et al., 2010).

In this chapter, non-normal distribution of the global HSI was taken into account with the use of single distribution GLM (Mihaylova et al., 2010). As widely used with the estimation of costs in health (same Gamma distribution), the log link function and the Gamma family specification were selected (Barber and Thompson, 2004; Blume et al., 2007; Beeuwkes & Zaslavsky 2004; Manning and Mullahy, 2001; Montez-Rath et al., 2006). The further consideration in this analysis was to give positive values to the global HSI in order to provide appropriate log estimations. This was done simply by moving the whole index towards the right. No known potential harm was caused by this numerical correction, because the values of the global HSI don't have a meaningful interpretation except that the higher values correspond to worse health status, and that was preserved. In addition, the squared link function was also computed to allow comparison of results (testing the precision and robustness of coefficients provided by the log function model). There was virtually no difference in the estimations of coefficients, standard deviations, confidence intervals and p-values between the two models and therefore the log function models were used for interpretation.

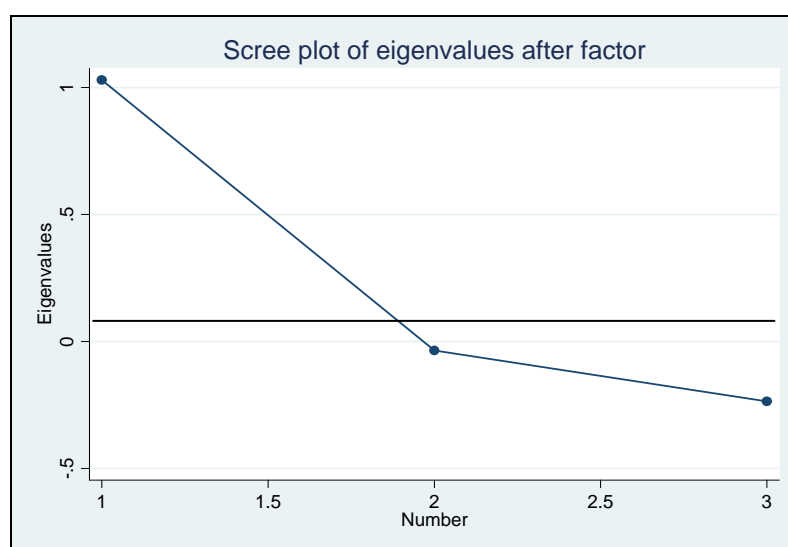
**The global HSI does not fit the immigrant population:** The global HSI is useful to explore the health status of both the total and the Chilean-born populations, but it is not reliable for the international immigrant group. In this sense, no regression model estimated for the global HSI converged in the international immigrants. For this reason an immigrant-specific more reliable HSI needed to be explored. The description of this immigrant-specific HSI is presented in the following section.

*A specific health status index for the international immigrant population: the immigrant HSI (Immig-HSI)*

Exploratory factor analysis was then conducted for the international immigrant population in order to construct an *immigrant-specific* HSI. After the exploration of different possible combinations, the best combination showed a good internal consistency (Cronbach's alpha of 0.74) and a modest sampling adequacy (KMO of 0.56) (Kaiser, 1974; Cronbach, 1951; Nunnally, 1978; Cronbach & Shavelson, 2004). All three factor loadings are above 0.30 (range -1.08 to 1.98, mean -0.21). It includes the three following health outcomes:

- [1] Number of medical attentions received in the past month
- [2] Number of mental attentions received in the past 3 months
- [3] Number of emergency attentions received in the past month

**Figure A10.2** Screeplot of the immig-HSI after EFA



Again, the higher the value of the score the worse the health status. Similar to the global HSI for the Chilean-born, the immigrant's HSI is not normally distributed (Shapiro Wilk test  $p < 0.0001$ ; also see histogram Figure A10.11). As discussed, it was possible to take into account the non-normal distribution found for the immigrant-HSI with the use of single distribution GLM (Mihaylova et al 2010). As widely used with the estimation of costs in health (same Gamma distribution), the log link function and the Gamma family specification were selected (Barber and Thompson, 2004; Blume et al., 2007; Beeuwkes and Zaslavsky, 2004; Manning and Mullahy, 2001; Montez-Rath et al., 2006).

Once more, this analysis needed to ensure positive values to the immig-HSI in order to provide appropriate log estimations. This was done again by moving the whole index towards the right. Once again, the squared link function was also computed to allow comparison of results (testing the precision and robustness of coefficients provided by the



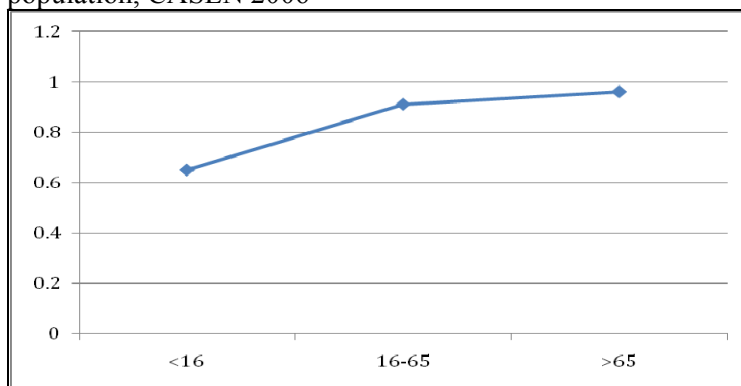
log function model). Again, there was virtually no difference in the estimations of coefficients, standard deviations, confidence intervals and p-values between the two models and therefore the log function models were used for interpretation.

### 10.2.3 Results of analysis of the health status index (HSI) among the immigrant and the Chilean-born populations

#### *The Immig-HSI in the international immigrants: The GLM approach*

Stratified analysis show significant differences in the mean score of the Immig-HIS by age groups ( $p < 0.001$ ). No other significant difference was observed through the stratified analysis.

**Figure A10.3** Crude mean score of the Health Status Index in the international immigrant population, CASEN 2006



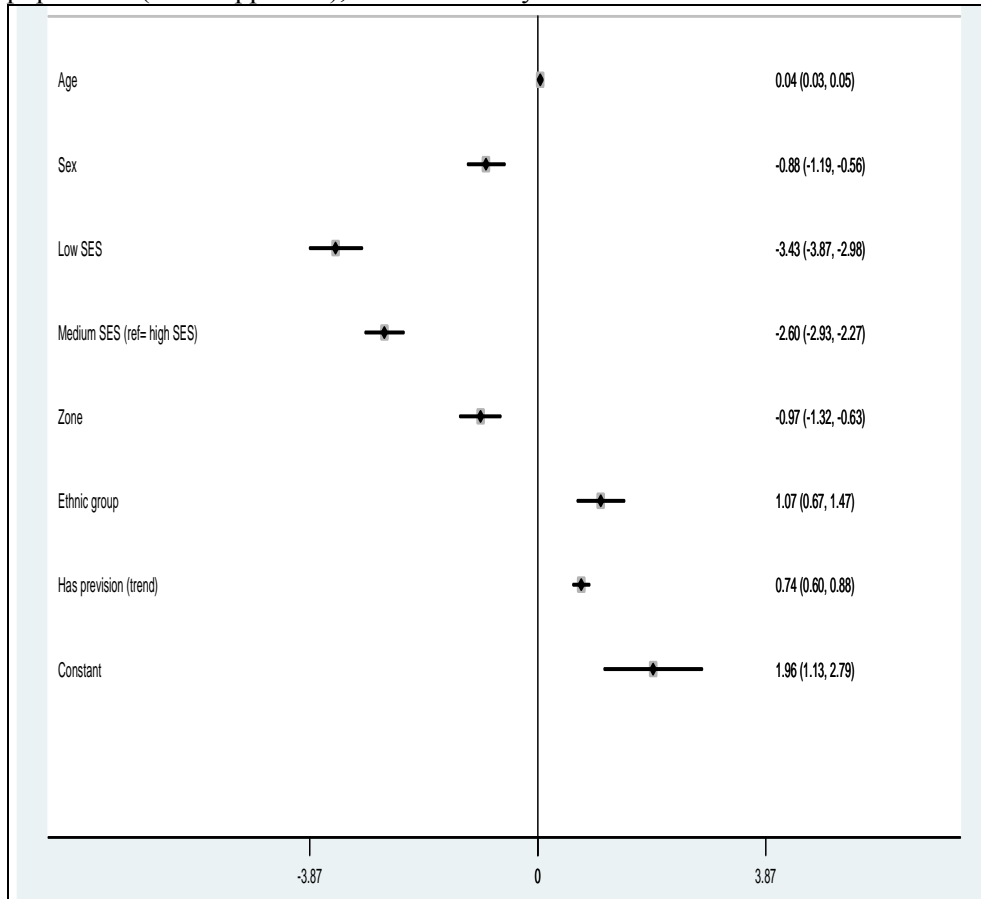
The relationship between the immigrants' health status index and the different sets of SDH was analysed through GLM models (all adjusted by demographic variables only, each partial model shows adequate GOF, link test  $p$ -value  $> 0.05$ ). Before presenting the results it should be remembered that the higher the score of the Immig-HSI the more impaired the health status. Age shows no crude association with this index but it reaches statistical significance in the presence of SES and material determinants of health (positive association, coeff. 0.02, confounding effect). Female immigrants show a lower chance than males of an increase in the score of the Immig-HSI (that is, impaired health status, coeff. -0.31) and this association is consistent across different SDH. In addition, immigrants living in rural settings are more likely to have worse global health status (coeff. 1.002) and immigrants belonging to a minority ethnic group are less likely to have worse health status (coeff. -1.05).

Opposite to what would be expected, the higher the household income per capita the higher the chance of increasing the health status' score (that is the worse the health status, coeff. 0.01, income as a continuous variable). This could be explained by the fact that immigrants

in higher SES might use more often the Chilean health care services, but not necessarily that these high SES group are sicker (see for example the case of use of the Pap smear programme in chapter 8). Similarly, there is a clear positive gradient between SES clusters and the Immig-HSI. All material determinants of health are associated with this global health index in the international immigrant population. Living in an overcrowded household and having a substandard materiality index decreases the chance of impaired health status, whereas a higher HAI and living in a household with an acceptable sanitary index increase the chance of impaired the health status among immigrants. Overall, all material determinants combined show that a higher CMI decreases the chance of impaired health status, possibly due to the strong negative correlation between overcrowding and the health status index (coeff. -7.34).

The final model for the Immig-HSI and the different sets of SDH shows that there is a higher chance to have a better health (a lower score in the index) among women, those in rural settings and those in the Low and Middle SES clusters, but a higher chance to have a worse health (a higher score in the index) if being older, belonging to a minority ethnic group and with access to all types of health care provision but private. This suggests protective factors may exist among poor immigrants who live in rural settings that reduce their chance of impaired health, irrespective of age and other SDH. This model shows an adequate goodness of fit (link test p-value>0.05, AIC1.93).

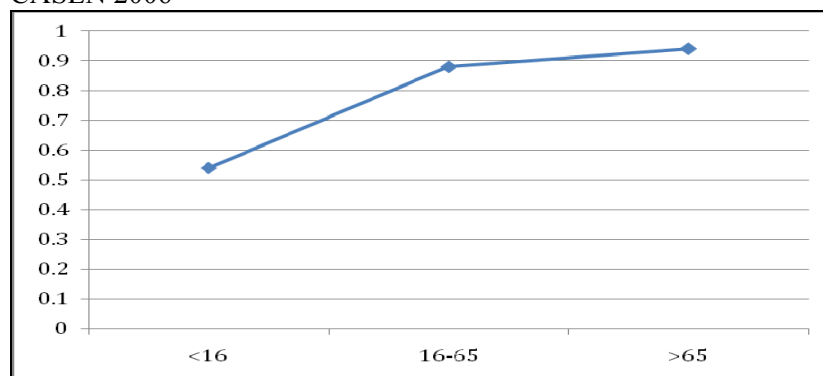
**Figure A10.4** Final adjusted model of the Health Status Index in the international immigrant population (GLM approach), CASEN survey 2006



*The global HSI in the Chilean-born: The GLM approach*

Stratified analysis shows a significant difference in the mean score of the global HIS by sex with a higher score (a worse health status) among the female Chilean-born population (mean score 0.87 versus 0.63). A significant positive trend is also observed by age group in the Chilean-born, similar to what is observed in the international immigrant population.

Figure A10.5 Crude mean score of the Health Status Index in the Chilean-born population, CASEN 2006



The relationship between the global HSI and the different sets of social determinants of health were also analysed in the Chilean-born population through GLM models. Even though both indexes, the global HSI and the Immig-HSI, are not comparable because they contain different items (health outcomes), this analysis can still provide some general insight into the factors affecting the global health of immigrants and the Chilean-born. Age and sex (female=1) are positively associated with the global HSI in the Chilean-born population (coeff. 0.01 and 0.27, respectively). These associations remain significant even after adjusting by socioeconomic and material determinants of health. However, they lose statistical significance in the presence of access to health care determinants (a confounding effect). In this sense, the Chilean-born entitled to all provision types are less likely to increase by one unit (that is, to have a worse global health) compared to those entitled to the private type (trend p-value<0.001). The *final model* shows that age (Coeff. 0.006) and sex (female Coeff. 0.25) are the remaining significant SDH of the HSI in the Chilean-born (final model shows adequate GOF, link test p-value>0.05, AIC=1.80).

#### 10.2.4 Methodological discussion of results

Factor analysis conducted in this section was considered to be only an exploratory approach to the development of a combined health status index. This was because of its low internal reliability score and also as confirmatory factor analysis was not conducted. In general terms, factor analysis allows researchers to combine different correlated variables into a single continuous variable. Variables used in factor analysis should be continuous and normally distributed, but the final linear combination obtained from FA does not assume normal distribution. In this chapter, the latent factor of interest is global health status. Both exploratory and confirmatory latent factor analysis create a latent factor that represents a way to summarise the dominant components of variants among all manifest variables, but without using the unique and error variance (as PCA analysis does) (Hair and Anderson, 1995; Reice, Widaman and Pugh, 1993; Landauer and Dumais, 1997).

Exploratory factor analysis is the first step before conducting confirmatory latent factor analysis. From the Structural Equation Modelling approach (SEM), confirmatory latent factor requires strong theoretical knowledge to build not only the factor variable but also the structural models that are used to test relations between latent factors or one latent variable with other variables of interest. Moreover, it requires specific statistical softwares to test these structural equations (Hair and Anderson, 1995; Tabanich and Fidell, 2006; Loehlin, 2007). Since this study is the first attempt to build a combined measure of global health to use among immigrants, EFA was selected as the first necessary step before SEM can be considered in the future.

Similar to other studies of health, health care and health economics, it is well recognized that statistical analysis of health poses a number of difficulties (Mihaylova et al., 2010). Positive skewness like that observed among the dependent variables included this chapter suggest data have heavy tails and may be multimodal with a mass at zero for a large proportion of the population. The traditional approach for handling such non-normal data in health statistics has been to use non-parametric methods. Nevertheless, it is widely accepted that it is the estimated population *mean value* is the statistic of real interest to policy makers (Arrow, 1970; Mihaylova et al., 2010). Methods based on the normal distribution are widely employed in the estimation of the mean of health variables, such as health care resource use and costs. They include inference based on the sample mean (such as the t-test) and linear regression approaches (such as ordinary least squares, OLS). These methods present results on the scale of interest and provide unbiased estimates for randomised data only. However, as illustrated in comparative studies, they are sensitive to extreme values and likely to be inefficient in small to medium sample sizes if the underlying distribution is not normal.

For methods based on normal distribution the data is often transformed in order to overcome problems of skewness and comparison of means on the transformed scale (Briggs and Gray, 1998) to model the transformed dependent variable are employed (Mihaylova et al 2010, Ai and Norton, 2000). Although more precise and robust, these comparisons of means on the transformed scale do not directly inform the comparison of means on the original scale and back transformation of the results to the original scale is required (Duan, 1983). In generalized linear models a mean function and a variance function are specified and the parameters are estimated given these structural assumptions. This approach addresses linearity in response on the specified scale and accommodates skewness through variance weighting. Although misspecification of the variance function could lead to inefficiencies, the mean function estimates are usually robust (Mihaylova et al., 2010; Manning and Mullahy, 2001). As the estimation is directly on the scale of raw data, unlike the transformation-based approaches, there is no need for back transformation (Mihaylova et al., 2010). The variance function is not fully presented and discussed in this study and might require further exploration. Nonetheless, similar studies on cost of health care and access to health care resources show consistent variance function estimation and comparison with other mean functions like the squared one indirectly assessed variance function's precision, efficiency and robustness.

Overall, two global-health-status indexes were created, one for each population under study: the immigrant and the Chilean-born populations. These were skewed continuous variables that for proper statistical analysis required transformation or the use of generalised linear models (GLM). Results showed that the main factors associated with these indexes are age, sex and socioeconomic status. Since these results do not add further comprehension to the SDH of international immigrants nor distinctive comparisons with the Chilean-born, they have been included in this Appendix-10.2 and are not discussed further in the main document.

**Table A10.15** Partially adjusted Coefficients (Coeff.) of the original HSI in the **IIP**, CASEN, 2006 (weighted sample size= 154 431) (statistical significant values appear in grey shade in the table)

<b>Social determinants</b>	<b>Coefficient</b>	<b>95% CI</b>
<b>SOCIO-DEMOGRAPHICS:</b>		
Age	-0.02	-0.06- 0.01
Sex (female=1)	-1.34	-2.24- -0.45
Marital status:		
Single	Ref	-
Married	2.28	0.38- 4.18
Divorced	0	-
Widow	3.30	0.31- 6.29
Ethnicity: any	-0.23	-1.52- 1.05
Zone: rural=1	-0.16	
Area:		-1.10- 0.76
Northern	Ref	-
Central	0.98	0.42-1.54
Southern	0	-
Number of household members:	-0.49	-0.04- 12.23
<b>SOCIOECONOMIC DETERMINANTS:</b>		
Educational level:		
No education	-	-
Primary School	-1.97	-2.15- -1.80
High School	-2.22	-2.27- -2.17
Technical level	-1.16	-1.20- 1.13
University level	Ref	-
Household income, continuous	0.001	0.0007- 0.02
Being employed	0	-
Has a contract	0	-
SES cluster Low	-1.20	-1.90- -0.53
SES cluster Medium	-0.50	-1.20- 0.01
SES cluster High	Ref	(signif. trend)

<b>MATERIAL DETERMINANTS:</b>		
Quality of the household Index:		
Acceptable	Ref	-
Sub-standard	-0.29	-1.40- 0.81
Unfit <sup>b</sup>	-0.37	-2.62- 1.87
Sanitary Index (deficient=0)	0.46	-0.98- 1.90
Overcrowded household (Townsend):	-0.47	-2.07- 1.11
HAI	2.25	-4.76- 9.28
CMI	-2.29	-9.43- 4.84
<b>ACCESS TO HEALTH CARE:</b>		
Type of provision:		
Private	Ref	-
Other	0	-
Public with some co-payment	0	-
Public 100% free	0	-
None/don't know	0	-
Use of cervical cancer screening service	7.17	1.17- 7.17
Number of preventive health care attentions	-4.24	-4.24- -4.24
<b>MIGRATION STATUS (for the total Chilean population):</b>		
Years living in the country:		
Less than a year	Ref	-
1 to 5 years	-0.97	-2.26 – 0.31
6 to 10 years	0	-
11 to 15 years	-1.78	-2.63- -0.86
16 to 20 years	-0.99	-2.53- 0.51
21 or more years	0	-
Country of origin:		
Peru	-2.11	-5.41- 1.17
Argentina	-0.50	-1.16- 0.15
Bolivia	0	-
Ecuador	0	-



**Table A10.16** Partially adjusted Coefficients (Coeff.) of the HSI **using GLM** in the **Immigrant population**, CASEN, 2006 (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Social determinants	Coefficient	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>		
Age	-0.03	-0.07- 0.005
Sex (female=1)	-2.39	-3.16- -0.21
Marital status:		
Single	Ref	-
Married	3.29	1.51- 5.06
Divorced	0	-
Widow	5.44	2.32- 8.57
Ethnicity: any	1.17	-0.31- 2.67
Zone: rural=1	-1.93	-3.65- -0.21
Area:		
Northern	Ref	-
Central	0.93	0.35- 1.51
Southern	0	-
Number of household members:	-0.56	-1.17- 12.83
<b>SOCIOECONOMIC DETERMINANTS:</b>		
Educational level:		
No education	0	-
Primary School	-1.91	2.28- -1.53
High School	-2.27	-2.39- -2.15
Technical level	-0.68	-0.76- -0.61
University level	Ref	-
Household income, continuous	0.002	0.0001- 0.002

SES cluster Low	-1.90	-2.74- -1.06
SES cluster Medium	-0.91	-1.55- -0.27
SES cluster High	Ref	(signif. trend)
<b>MATERIAL DETERMINANTS:</b>		
Quality of the household Index:		
Acceptable	Ref	-
Sub-standard	-59.77	-90.47- -29.07
Unfit	0	-
Sanitary Index (deficient=0)	43.77	24.00- 63.52
Overcrowded household (Townsend):	-73.11	-109.06- -37.76
HAI	28.34	15.12- 41.55
CMI	-28.82	-4.23- -53.49
<b>ACCESS TO HEALTH CARE:</b>		
Type of provision:		
Private	Ref	-
Other		
Public with some co-payment	-1.35	-1.89- -0.860
-Public 100% free	-2.35	-2.85- -2.04
None/don't know	-0.17	-0.47- 0.12
Use of cervical cancer screening service	-0.97	-1.71- -0.25
Number of preventive health care attentions	0.41	-0.56- 1.40
<b>MIGRATION STATUS (for the total Chilean population):</b>		
Years living in the country:		
Less than a year	Ref	-
1 to 5 years	-1.80	-1.81- -1.79
6 to 10 years	0	-
11 to 15 years	-0.85	-0.86- -0.84
16 to 20 years	-0.68	-0.70- -0.65
21 or more years	-3.31	-3.36 – 3.37
Country of origin:		
Peru	0.75	0.73- 0.78
Argentina	2.68	2.63-2.72

Bolivia	0	-
Ecuador	0	-

\*Comparative GLM models using squared link function show the same results that these models with the log link function

\*Goodness of Fit of the model (Test link function) was applied to each model on the relationship between the HSI and the sets of SDH. They all show adequate Goodness of Fit (p-value above 0.05).

**Table A10.17** Partially adjusted Coefficients (Coeff.) of the **original** HSI in the **Chilean-born population**, CASEN, 2006 (weighted sample size 16 130 743) (statistical significant values appear in grey shade in the table)

<b>Social determinants</b>	<b>Coefficient</b>	<b>95% CI</b>
<b>SOCIO-DEMOGRAPHICS:</b>		
Age	0.007	0.002- 0.01
Sex (female=1)	0.23	0.09- 0.37
Marital status:		
Single	Ref	-
Married	-0.08	-0.32- 0.15
Divorced	-0.24	-0.53- 0.05
Widow	-0.44	-0.77- -0.11
Ethnicity: any	-0.22	-0.43- -0.009
Zone:		
Rural=1	-0.10	-0.25- 0.05
Area:		
Northern	Ref	-
Central	0.08	-0.18- 0.35
Southern	0.12	-0.13- 0.32
Number of household members:		
One member	Ref	-
2 to 4 members	-0.06	-0.43- 0.29
5 to 7 members	-0.20	-0.60- 0.18
8 or more members	-0.11	-0.53- 0.51
<b>SOCIOECONOMIC DETERMINANTS:</b>		
Educational level:		
No education	0	-
Primary School	0.43	-0.17- 1.03
High School	0.46	-0.08- 1.01

Technical level	0.22	-0.26- 0.73
University level	Ref	-
Household income, continuous	0.007	-0.0008- 0.03
Being employed		
Type of contract: Temporary	-0.28	-0.70- 0.19
<b>MATERIAL DETERMINANTS:</b>		
Quality of the household Index:		
Acceptable	Ref	-
Sub-standard	0.68	-1.18- 2.55
Unfit	1.16	-2.71- 5.05
Sanitary Index (deficient=0)	-0.76	-3.03- 1.76
Overcrowded household (Townsend):	0.93	-1.83- 3.69
HAI	-3.46	-15.59- 8.65
CMI	3.50	-8.81- 15.83
<b>ACCESS TO HEALTH CARE:</b>		
Type of provision:		
Private	Ref	-
Other	-0.62	-1.42- 0.107
Public with some co-payment	-0.37	-0.80- 0.06
Public 100% free	-0.28	-0.63- -0.06
None/don't know	-0.87	-1.22- -0.51
Use of cervical cancer screening service	0.12	-0.16- 0.42
Number of preventive health care attentions	0.06	0.02- 0.09

**Table A10.18** Partially adjusted Coefficients (Coeff.) of the **transformed (squared)** HSI in the **Chilean-born population**, CASEN, 2006 (weighted sample size 16 130 743) (statistical significant values appear in grey shade in the table)\*

Social determinants	Coefficient	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>		
Age	0.006	-0.002-0.01
Sex (female=1)	0.17	0.04-0.30
Marital status:		
Single	Ref	-
Married	-0.08	-0.32 – 0.16
Divorced	-0.07	-0.43- 0.29
Widow	-0.29	-0.78- 0.19
Ethnicity: any	-0.05	-0.25- 0.14
Zone:		
Rural=1	-0.18	-0.32- -0.30
Area:		
Northern	Ref	-
Central	-0.005	-0.29- 0.28
Southern	0.04	-0.25- 0.34
Number of household members:		
One member	Ref	-
2 to 4 members	-0.02	-0.57- 0.48
5 to 7 members	0.15	-0.43-0.73
8 or more members	0.03	-0.54- 0.72
<b>SOCIOECONOMIC DETERMINANTS:</b>		
Educational level:		
No education	0	-
Primary School	0.14	-0.18- 0.52
High School <sup>b</sup>	0.32	-0.008- .064

Technical level	0.17	-0.65- 0.002
University level	Ref	-
Household income, continuous	0.003	-0.0006- 0.09
Being employed	-0.25	-0.66- 0.16
Type of contract: Temporary	-0.32	-0.65- 0.002
<b>MATERIAL DETERMINANTS:</b>		
Quality of the household Index:		
Acceptable	Ref	-
Sub-standard	0.47	-1.17 – 2.12
Unfit	0.53	-3.19- 4.26
Sanitary Index (deficient=0)	-0.26	-2.81- 2.27
Overcrowded household (Townsend):	0.40	-2.32 -3.14
HAI	-1.67	-13.34 – 10.00
CMI	1.67	-10.20- 13.56
<b>ACCESS TO HEALTH CARE:</b>		
Type of provision:		
Private	Ref	-
Other	-0.53	-1.32- 0.25
Public with some co-payment	-0.13	-0.60- 0.33
Public 100% free	-0.12	-0.68- 0.44
None/don't know	-0.68	-1.25- -0.44
Use of cervical cancer screening service	0.3.7	-0.05- 0.81
Number of preventive health care attentions	0.04	0.007- 0.08

\*Using other transformations like the inverse HIS does not change the coefficients or significance of the results

\*Note that coefficient values from this Table should NOT be used for interpretation, since they still require re-transformation. Only direction of association and statistical significance can be used for interpretation of results.

**Table A10.19** Partially adjusted Coefficients (Coeff.) of the HSI **using GLM** in the **Chilean-born population**, CASEN, 2006 (weighted sample size= 16 130 743) (statistical significant values appear in grey shade in the table)\*

<b>Social determinants</b>	<b>Coefficient</b>	<b>95% CI</b>
<b>SOCIO-DEMOGRAPHICS:</b>		
Age	0.01	0.004- 0.016
Sex (female=1)	0.27	0.07- 0.48
Marital status:		
Single	Ref	-
Married	-0.12	-0.40- 0.14
Divorced	-0.24	-0.58- 0.09
Widow	-0.50	-0.91- -0.10
Ethnicity: any	-0.29	-0.68- 0.09
Zone:		
Rural=1	-0.08	-0.29- 0.12
Area:		
Northern	Ref	-
Central	0.15	-0.27- 0.57
Southern	0.19	-0.06- 0.06
Number of household members:	-0.003	-1.65- -0.38
<b>SOCIOECONOMIC DETERMINANTS:</b>		
Educational level:		
No education	0.36	-0.15- 0.87
Primary School	0.11	-0.48- 0.72
High School	-0.02	-0.3.5- 0.31
Technical level	0.005	-0.34- 0.35
University level	Ref	-
Household income, continuous	0.006	-0.0006-0.01
<b>MATERIAL DETERMINANTS:</b>		



Quality of the household Index:		
Acceptable	Ref	-
Sub-standard	0.93	-1.28- 3.15
Unfit	0.93	-2.81- 6.12
Sanitary Index (deficient=0)	-1.15	-4.09- 1.77
Overcrowded household (Townsend):	1.32	-1.79- 4.44
HAI	-4.98	-18.95- 8.97
CMI	5.05	-9.14- 19.25
<b>ACCESS TO HEALTH CARE:</b>		
Type of provision:		
Private	Ref	-
Other	-1.20	-2.25- -0.14
Public with some co-payment	-0.96	-1.56- -0.36
Public 100% free	-0.87	-1.45- -0.28
None/don't know	-1.28	-1.88- -0.68
Use of cervical cancer screening service	0.05	-0.22- 0.32
Number of preventive health care attentions	0.05	0.01- 0.09

\*Comparative GLM models using squared link function show the same results that these models with the log link function

\*Goodness of Fit of the model (Test link function) was applied to each model on the relationship between the HSI and the sets of SDH. They all show adequate Goodness of Fit (p-value above 0.05).

## APPENDIX 10.3 Testing the most reliable combination of variables for the Global Health Status Index (HSI)

### SELECTED COMBINATION FOR THE GLOBAL HSI: medical attentions, emergency attentions, mental attentions, any dental attention

#### Factor analysis conducted (selected factor in grey shade in the table)

```
. factor meddisease urgdisease mentaldisease dentaldisease
(obs=428)
```

```
Factor analysis/correlation          Number of obs   =    428
Method: principal factors           Retained factors =     2
Rotation: (unrotated)              Number of params =     6
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	0.53664	0.53033	2.1236	2.1236
Factor2	0.00631	0.13109	0.0250	2.1486
Factor3	-0.12478	0.04069	-0.4938	1.6548
Factor4	-0.16547	.	-0.6548	1.0000

```
LR test: independent vs. saturated:  chi2(6) = 59.81 Prob>chi2 = 0.0000
```

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness
meddisease	0.4005	0.0002	0.8396
urgdisease	0.4337	0.0018	0.8119
mentaldise~e	0.1793	0.0715	0.9627
dentaldisease	0.3950	-0.0347	0.8428

```
. predict HSI
(regression scoring assumed)
```

Scoring coefficients (method = regression)

Variable	Factor1	Factor2
meddisease	0.27309	0.00059
urgdisease	0.30196	0.00238
mentaldise~e	0.11503	0.07215
dentaldisease	0.26942	-0.03726

```
. estat kmo
```

Kaiser-Meyer-Olkin measure of sampling adequacy

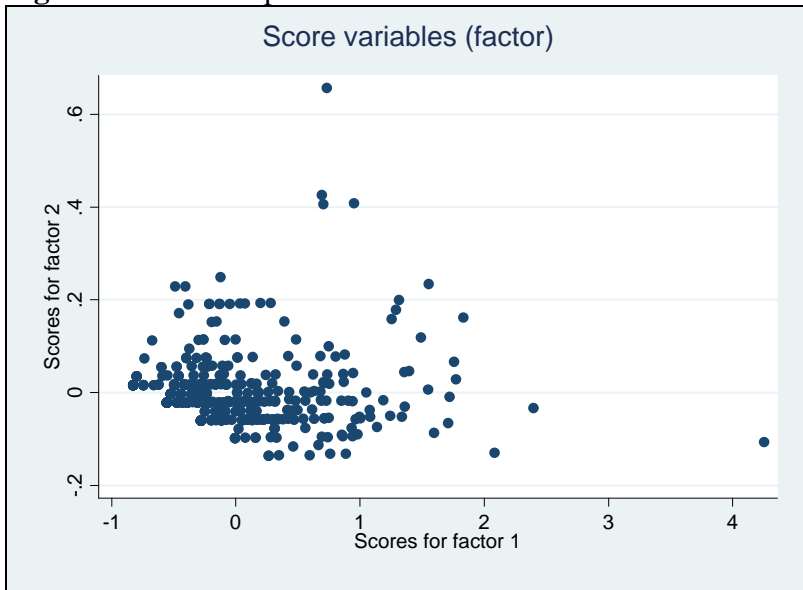
Variable	kmo
meddisease	0.6154
urgdisease	0.5940
mentaldise~e	0.6078
dentaldisease	0.5951
<b>Overall</b>	<b>0.6014</b>

#### Chronbach's alpha

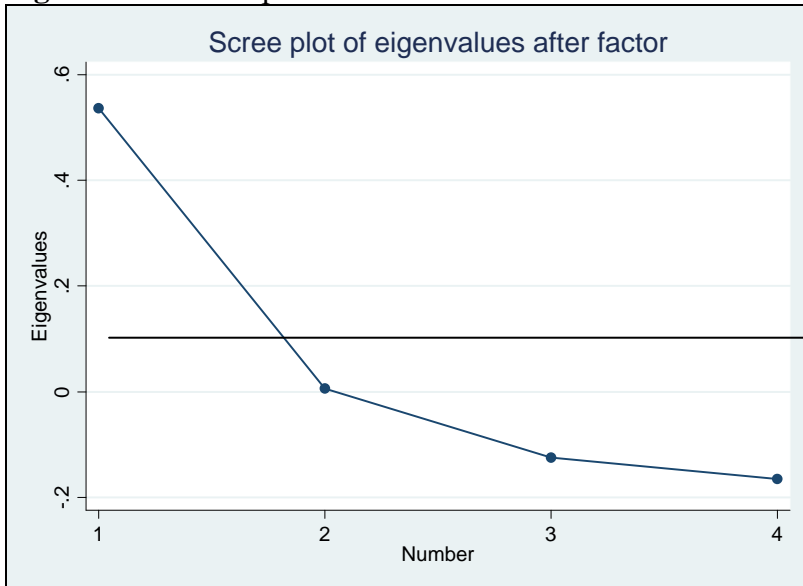
```
. alpha meddisease urgdisease mentaldisease dentaldisease
Test scale = mean(unstandardized items)
```

```
Average interitem covariance:    .4039139
Number of items in the scale:    4
Scale reliability coefficient:    0.6723
```

**Figure A10.6** Scoreplot of the HSI



**Figure A10.7** Screeplot of the HSI

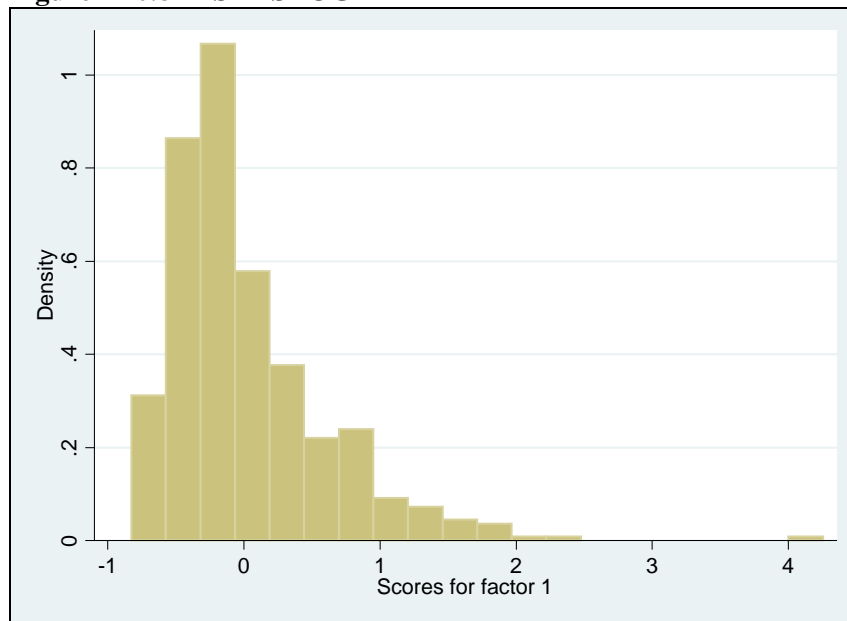


**Descriptive statistics of the index**

```
. sum HSI, d
```

Scores for factor 1					
-----					
	Percentiles	Smallest			
1%	-.8266851	-.8266851			
5%	-.7958034	-.8266851			
10%	-.5533841	-.8266851	Obs		428
25%	-.4065638	-.8266851	Sum of Wgt.		428
50%	-.1396889		Mean		2.66e-10
		Largest	Std. Dev.		.606112
75%	.2694167	1.832584			
90%	.8040035	2.085086	Variance		.3673718
95%	1.138539	2.396756	Skewness		1.728041
99%	1.774396	4.254827	Kurtosis		9.072113

**Figure A10.8 HIS HISTOGRAM**



**Shapiro-Wilk W test for the index**

```
. swilk HSI
```

Shapiro-Wilk W test for normal data					
Variable	Obs	W	V	z	Prob>z
HSI	428	0.88381	33.987	8.416	0.00000

```
. ladder HSI
```

Transformation	formula	chi2(2)	P(chi2)
cubic	HSI^3	.	0.000
square	HSI^2	.	0.000
identity	HSI	.	0.000
square root	sqrt(HSI)	.	.
log	log(HSI)	.	.
1/(square root)	1/sqrt(HSI)	.	.
inverse	1/HSI	.	0.000
1/square	1/(HSI^2)	.	0.000
1/cubic	1/(HSI^3)	.	0.000

Figure A10.9 G-ladder HSI

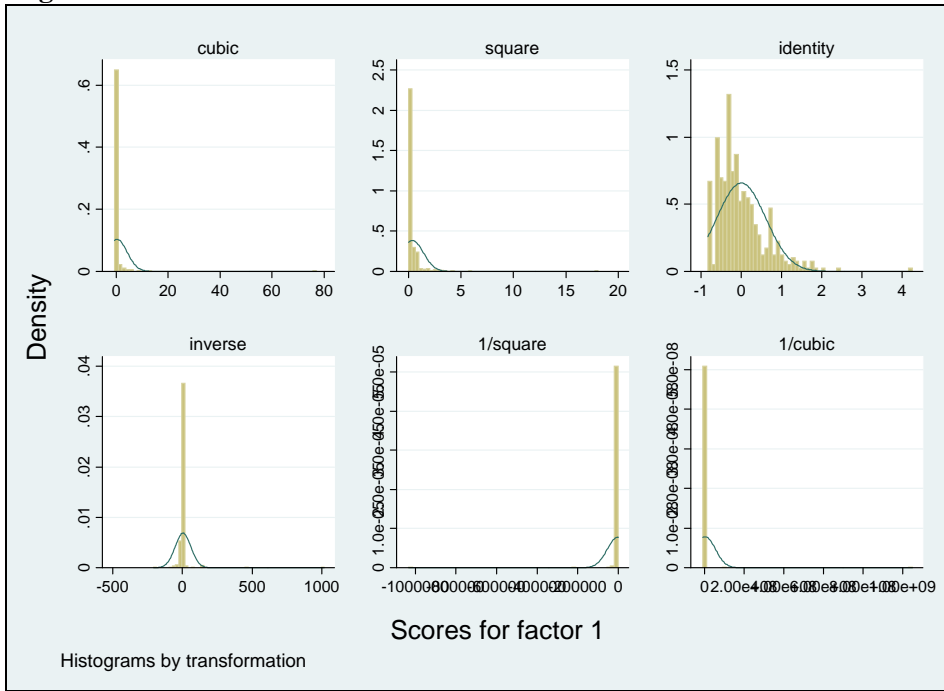
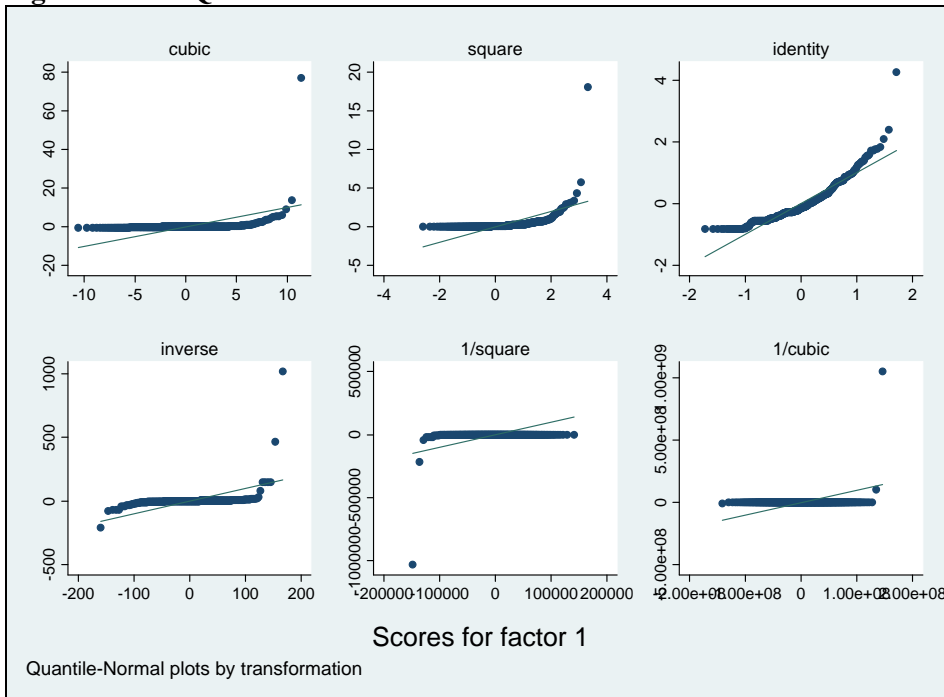


Figure A10.10 Q-ladder HSI



**APPENDIX 10.4 Testing the most reliable combination of variables for the immigrant-Health Status Index (Immig-HSI)**

○ **SELECTED COMBINATION FOR THE IMMIGRANTS HSI: medical attentions, mental attentions, emergency attentions** (selected factor in grey shade in the table)

**Factor analysis**

```
. factor meddisease mentaldisease urgdisease if immig==1
(obs=11)
```

```
Factor analysis/correlation          Number of obs   =      11
Method: principal factors           Retained factors =       1
Rotation: (unrotated)              Number of params =       3
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
<b>Factor1</b>	<b>1.02939</b>	<b>1.06570</b>	<b>1.3592</b>	<b>1.3592</b>
Factor2	-0.03631	0.19944	-0.0479	1.3113
Factor3	-0.23575	.	-0.3113	1.0000

```
LR test: independent vs. saturated:  chi2(3) =    4.37 Prob>chi2 = 0.2240
```

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
meddisease	0.3120	0.9027
mentaldise~e	0.6765	0.5424
urgdisease	0.6888	0.5255

```
. estat kmo
```

Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
meddisease	0.7724
mentaldise~e	0.5419
urgdisease	0.5400
<b>Overall</b>	<b>0.5598</b>

**Chronbach's alpha**

```
. alpha meddisease mentaldisease urgdisease if immig==1
Test scale = mean(unstandardized items)
```

```
Average interitem covariance:      .5257967
Number of items in the scale:      3
Scale reliability coefficient:      0.7447
```

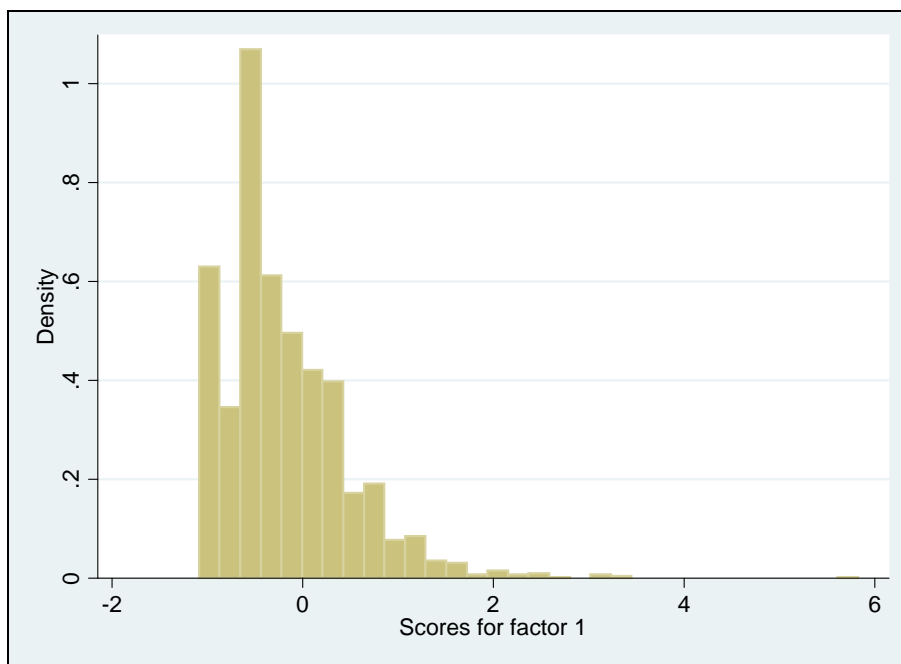
**Descriptive statistics of the index**

```
. histogram immigHSI
(bin=32, start=-1.0876359, width=.21616365)

. sum immigHSI, d
```

Scores for factor 1				
-----				
Percentiles	Smallest			
1%	-1.087636	-1.087636		
5%	-1.087636	-1.087636		
10%	-.9743401	-1.087636	Obs	1791
25%	-.6190629	-1.087636	Sum of Wgt.	1791
50%	-.3505754		Mean	-.2135496
		Largest	Std. Dev.	.672138
75%	.1179976	3.135087		
90%	.6752824	3.346288	Variance	.4517694
95%	1.013248	3.423884	Skewness	1.60613
99%	1.986739	5.829601	Kurtosis	9.003818

**Figure A10.11 IMMIG-HIS HISTOGRAM**



**Shapiro-Wilk W test of the index**

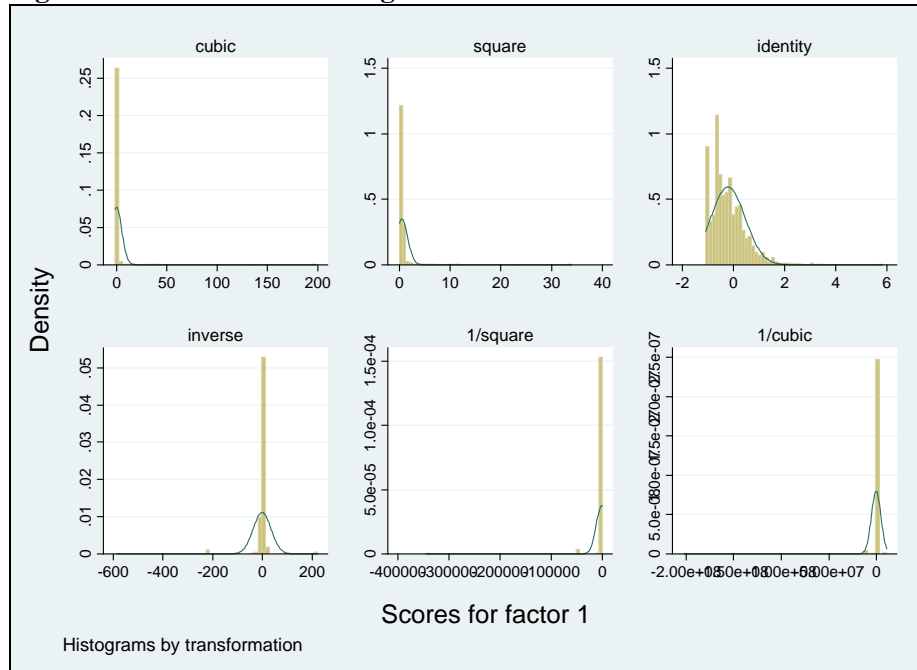
```
. swilk immigHSI
```

Shapiro-Wilk W test for normal data					
Variable	Obs	W	V	z	Prob>z
immigHSI	1791	0.91225	94.127	11.513	0.00000

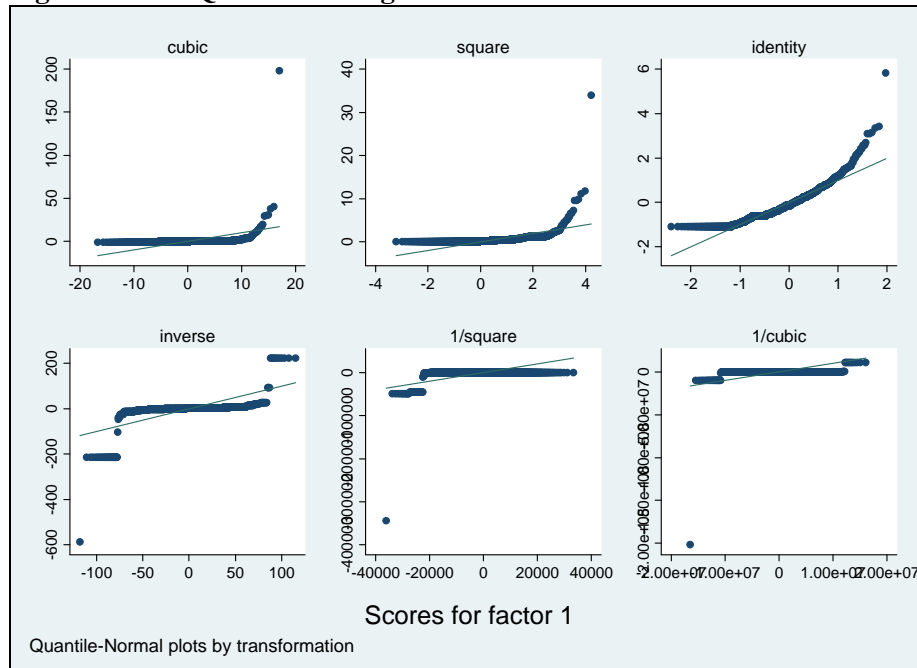
```
. ladder immigHSI
```

Transformation	formula	chi2(2)	P(chi2)
cubic	immigHSI^3	.	.
square	immigHSI^2	.	.
identity	immigHSI	.	0.000
square root	sqrt(immigHSI)	.	.
log	log(immigHSI)	.	.
1/(square root)	1/sqrt(immigHSI)	.	.
inverse	1/immigHSI	.	.
1/square	1/(immigHSI^2)	.	.
1/cubic	1/(immigHSI^3)	.	.

**Figure A10.12 G-ladder immigHSI**



**Figure A10.13 Q-ladder immigHSI**





**NOTE: COMPARING THE SAME INDEX FOR THE CHILEAN-BORN IT IS NOT AS GOOD AS THE GLOBAL HEALTH STATUS INDEX (see this example)**

```
. factor meddisease mentaldisease urgdisese if immig==0
(obs=1780)
```

```
Factor analysis/correlation          Number of obs   =    1780
Method: principal factors            Retained factors =     1
Rotation: (unrotated)                Number of params =     3
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	0.27353	0.28643	2.8775	2.8775
Factor2	-0.01290	0.15268	-0.1357	2.7418
Factor3	-0.16557	.	-1.7418	1.0000

```
LR test: independent vs. saturated:  chi2(3) = 87.11 Prob>chi2 = 0.0000
```

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Uniqueness
meddisease	0.3634	0.8679
mentaldise~e	0.2197	0.9517
urgdisease	0.3053	0.9068

```
. estat kmo
```

Kaiser-Meyer-Olkin measure of sampling adequacy

Variable	kmo
meddisease	0.5117
mentaldise~e	0.5354
urgdisease	0.5170
<b>Overall</b>	<b>0.5175</b>

```
. alpha meddisease mentaldisease urgdisese if immig==0
```

Test scale = mean(unstandardized items)

```
Average interitem covariance:    .3035118
Number of items in the scale:    3
Scale reliability coefficient:    0.5364
```

## **APPENDIX 11**

### **TABLES FROM CHAPTER 11**

**Table A11.1 Demographic** determinants of health of the International Immigrant Population and the missing values in Chile (weighted sample size 154 431 and 108 599, respectively), CASEN survey 2006

Dimensions	International immigrants		Those who preferred not to report their migration status	
	% or mean	95% CI	% or mean	95% CI
Sex (male) <sup>b</sup>	45.21	41.74-48.72	51.27	47.99-55.41
Mean age	X=33.41	31.81-35.00	X=26.13	23.41-28.26
Age categories: <sup>a</sup>				
<16 <sup>c</sup>	13.60	11.29-16.28	45.25	39.53-51.10
16-65 <sup>c</sup>	79.08	75.92-81.93	47.26	41.64-52.94
Over 65	7.32	5.33-9.97	7.49	5.31-10.46
Marital status: <sup>a</sup>				
Single <sup>c</sup>	45.81	42.06-49.62	64.30	59.36-68.95
Married or cohabitant couple <sup>b</sup>	45.49	41.66-49.36	29.39	25.09-34.10
Annulled, separated or divorced	4.21	3.06-5.77	2.23	1.32-3.74
Widow	4.49	2.89-6.91	4.07	2.55-6.44
Minority ethnic group: any	5.57	3.79-8.10	5.59	3.90-7.96
Type of minority ethnic group: <sup>a</sup>				
Aymara <sup>c</sup>	2.33	1.48-3.63	0.56	0.18-1.68
Atacameño	0.20	0.0044-0.93	-	-
Mapuche <sup>b</sup>	2.96	1.59-5.46	-	-
Others	0.0078	0.0011-0.55	4.45	3.10-6.36

<sup>a</sup> p<0.0001 when comparing the IIP versus the MS-MV<sup>b</sup> p<0.05 when comparing the IIP versus the MS-MV

Dimensions	International immigrants		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
Zone: <sup>a</sup>				
Urban <sup>c</sup>	93.97	92.58-95.11	90.01	87.41-92.13
Rural	6.03	4.89-7.42	9.99	7.87-12.59
Area: <sup>a</sup>				
Northern	13.15	10.14-16.89	21.51	14.97-29.91
Central <sup>c</sup>	73.66	69.22-77.66	57.70	50.31-64.77
Southern <sup>c</sup>	13.19	10.50-16.45	20.78	16.41-25.96
Mean number of households members:	3.96	3.80-4.12	4.91	4.68-5.14
Number of household members: <sup>a</sup>				
One member <sup>c</sup>	5.03	3.34-7.52	1.27	0.64-2.51
2 to 4 members <sup>b</sup>	58.35	53.22-63.31	43.38	36.58-50.43
5 to 7 members	35.16	30.38-40.26	48.41	41.31-55.58
8 or more members <sup>c</sup>	1.46	0.79-2.67	6.94	3.53-13.22

<sup>a</sup> p<0.0001 when comparing the IIP versus the MS-MV

<sup>b</sup> p<0.05 when comparing the IIP versus the MS-MV

**Table A11.2** Stratifying different demographic determinants of health by *age groups* among the **immigrant's missing values** (weighted sample size 108 599), CASEN survey 2006

Dimensions	Under 16 years old		16 to 65 years old		Over 65 years old	
	%	95% CI	%	95% CI	%	95% CI
Sex Male	55.02	49.21-50.79	51.39	46.38-56.38	33.73	22.06-47.79
Zone Urban	89.74	86.29-92.40	90.02	86.54-92.68	91.60	85.47-95.29
Area:						
Northern	29.25	19.28-41.71	15.44	9.00-25.21	13.09	5.40-28.43
Central	51.59	41.76-61.31	63.20	53.59-71.86	59.94	42.67-75.05
Southern	19.16	14.44-24.96	21.36	15.28-29.04	29.67	14.67-44.24
Marital status:						
Single <sup>a</sup>	-	-	39.06	32.78-45.72	7.83	2.90-19.48
Married	-	-	53.57	47.16-59.88	54.39	37.34-70.48
Divorced	-	-	4.05	2.32-7.01	4.22	0.94-16.95
Widow <sup>a</sup>	-	-	3.30	1.59-6.73	33.56	19.42-51.42
Minority ethnic group: any	4.98	3.06-8.00	5.74	3.72-8.77	8.37	2.35-25.72
Type of minority ethnic group:						
Aymara	1.16	0.36-3.72	0.04	0.01-0.22	0.12	0.03-0.48
Atacameño	-	-	-	-	-	-
Mapuche	-	-	-	-	-	-
Others	3.19	1.92-5.26	5.06	3.28-7.74	8.25	2.28-25.76

<sup>a</sup>p<0.0001 when comparing between age groups

**Table A11.3** Stratifying different demographic determinants of health by *age groups* among the **immigrant population**, CASEN survey 2006 [SAME TABLE APPEARS IN CHAPTER 6, TABLE 6.9]

Dimensions	Under 16 years old		16 to 65 years old		Over 65 years old	
	%	95% CI	%	95% CI	%	95% CI
Sex Male	52.92	44.98-60.72	43.04	39.34-46.83	53.74	37.73-69.01
Female	47.08	39.28-55.02	56.96	53.17-60.66	46.26	30.99-62.27
Zone Urban	91.02	86.16-94.29	94.77	93.53-95.78	91.15	86.01-94.52
Rural	8.98	5.71-13.84	5.23	4.22-6.47	8.85	5.48-13.99
Area:						
Northern	12.92	7.07-22.44	13.29	10.16-17.19	12.37	5.75-24.60
Central	66.99	56.44-76.07	74.91	70.44-78.90	73.91	59.29-84.64
Southern	20.09	13.39-29.00	11.81	9.34-14.84	13.73	6.58-26.43
Marital status:						
Single <sup>a</sup>	100	-	39.96	35.55-44.53	8.33	3.16-20.21
Married	-	-	53.25	48.73-57.72	46.42	31.69-61.80
Divorced	-	-	5.19	3.74-7.15	1.17	0.25-5.25
Widow <sup>a</sup>	-	-	1.60	0.90-2.81	44.08	28.58-60.82
Minority ethnic group: any	4.59	2.34-8.81	6.01	3.91-9.14	2.52	1.08-5.73
Type of minority ethnic group:						
Aymara	0.99	0.43-2.24	2.66	1.63-4.31	1.29	0.59-2.78
Atacameño	0.01	0.002-0.14	0.24	0.04-1.23	0.16	0.04-0.54
Mapuche	3.58	1.56-7.96	3.01	1.44-6.22	1.07	0.20-5.42
Others	-	-	0.09	0.01-0.70	-	-

<sup>a</sup>p<0.0001 when comparing age groups

**Table A11.4** Stratifying different demographic determinants of health by *gender*, a comparison between the immigrant population and the missing values, CASEN survey 2006 (weighted sample size 3 154 431 and 108 599, respectively)

Dimensions	International immigrant population				Immigrant's missing values			
	Men		Women		Men		Women	
	%	95% CI	Mean	95% CI	%	95% CI	%	95% CI
Age categories:								
<16 <sup>a b</sup>	15.93	12.63-19.90	11.68	9.13-14.82	48.15	41.35-55.01	42.15	35.58-49.01
16-65 <sup>a b</sup>	75.35	70.60-79.55	82.14	78.17-85.52	46.97	40.37-53.67	47.57	40.69-54.54
Over 65 <sup>b</sup>	8.72	5.89-12.74	6.18	3.78-9.97	4.89	3.06-7.72	10.28	6.78-15.28
Zone (rural) <sup>a b</sup>	6.26	4.90-7.98	5.79	4.50-7.42	6.08	4.03-9.06	5.08	3.05-8.33
Area:								
Northern	11.58	8.38-15.80	14.48	10.67-19.35	23.04	15.04-33.62	19.88	13.86-27.67
Central <sup>a b</sup>	74.68	69.22-79.45	73.00	67.71-77.71	54.86	46.24-63.20	60.75	53.00-67.98
Southern <sup>a b</sup>	13.74	10.23-18.21	12.52	9.82-15.84	22.10	17.03-28.16	19.38	14.72-25.08
Marital status:								
Single <sup>a b</sup>	46.62	41.21-52.10	45.14	40.57-49.79	65.41	59.05-71.27	63.10	57.46-68.40
Married <sup>a b</sup>	48.05	42.74-53.39	43.42	38.68-48.29	32.26	26.62-38.47	26.32	21.65-31.59
Divorced <sup>a</sup>	2.06	1.02-4.14	5.94	4.23-8.29	1.94	0.89-4.17	2.55	1.28-5.02
Widow <sup>a</sup>	3.28	1.61-6.56	5.50	3.18-9.35	0.39	0.19-0.84	8.01	4.97-12.67
Minority ethnic group: any	5.29	3.40-8.14	5.79	3.68-8.99	6.08	4.03-9.06	5.08	3.05-8.33
Type of minority ethnic group:								
Aymara <sup>a b</sup>	2.03	0.02-0.40	2.58	1.48-4.46	1.05	0.33-3.24		
Atacameño	0.07	0.02-0.20	0.31	0.05-1.89	-	-	-	-
Mapuche	3.18	1.66-6.03	2.75	1.27-5.86	-	-	-	-
Others	-	-	0.14	0.02-1.01	4.48	2.21-6.83	0.55	0.08-3.61

<sup>a</sup> p<0.0001 when comparing same categories across populations<sup>b</sup> p<0.05 when comparing same categories across populations

**Table A11.5** Stratifying different demographic determinants of health by *marital statuses*, a comparison between the immigrant population and the missing values, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population				Those who preferred not to report their migration status			
	Single		Married		Single		Married	
	%	95% CI	%	95% CI	%	95%CI	%	95%CI
Age categories:								
<16 <sup>a</sup>	29.69	24.68-35.24	0	-	70.38	63.73-76.27	0	-
16-65 <sup>a</sup>	68.98	63.38-74.07	92.52	89.35-94.81	28.71	22.88-35.34	86.14	78.89-91.19
Over 65	1.33	0.51-3.42	7.48	5.19-10.65	0.91	0.34-2.39	13.86	8.81-21.15
Zone (rural) <sup>a</sup>	5.32	3.96-7.10	6.71	5.30-8.46	10.66	8.09-13.93	9.26	6.65-12.75
Area:								
Northern	9.98	6.32-15.41	15.23	11.65-19.68	24.42	16.49-34.60	17.30	9.83-28.63
Central <sup>a</sup>	74.15	67.48-79.85	74.24	69.23-78.68	55.03	46.33-63.43	59.77	42.39-69.41
Southern <sup>a</sup>	15.88	11.51-21.50	10.53	8.03-13.69	20.54	15.68-26.44	22.93	16.35-31.17
Minority ethnic group: any	5.82	3.49-9.56	4.85	3.14-7.42	4.25	2.69-6.64	6.89	4.27-10.94
Type of minority ethnic group:								
Aymara <sup>a</sup>	1.61	0.81-3.17	2.58	1.66-3.99	0.84	0.27-2.61	0.06	0.01-0.23
Atacameño <sup>a</sup>	0.02	0.007-0.07	0.05	0.01-0.19	-	-	-	-
Mapuche <sup>a</sup>	4.02	2.03-7.81	2.21	0.99-4.87	-	-	-	-
Others	0.17	0.02-1.21	0	-	2.97	1.82-4.81	5.83	3.66-9.18

<sup>a</sup>p<0.0001 when comparing same categories across populations



Dimensions	International immigrant population				Those who preferred not to report their migration status			
	Divorced		Widow		Divorced		Widow	
	%	95% CI	%	95% CI	%	95%CI	%	95%CI
Age categories:								
<16	0	-	0	-	0	-	0	-
16-65 <sup>a</sup>	97.94	90.98-99.56	28.12	14.44-47.55	85.85	53.69-96.95	38.28	19.11-61.94
Over 65 <sup>a</sup>	2.06	0.44-9.02	71.88	52.45-85.56	14.15	3.05-46.31	61.72	38.06-80.89
Zone (rural) <sup>a</sup>	5.70	2.32-13.33	6.14	3.19-11.47	5.07	1.81-13.44	7.12	3.29-14.75
Area:								
Northern	21.22	10.61-37.94	17.30	6.94-36.99	4.25	1.19-14.02	15.49	5.15-38.21
Central	70.20	53.72-82.69	68.27	47.85-83.57	70.63	42.24-88.77	77.93	57.10-90.36
Southern <sup>a</sup>	8.58	3.39-20.04	14.43	6.50-29.03	25.12	8.34-55.31	6.58	3.03-13.07
Minority ethnic group: any	3.00	0.99-8.74	12.53	4.58-29.94	10.60	1.41-49.47	14.74	3.86-42.68
Type of minority ethnic group:								
Aymara <sup>a</sup>	1.33	0.57-3.06	8.18	2.38-24.59	-	-	-	-
Atacameño <sup>a</sup>	0	-	3.69	0.54-21.38	-	-	-	-
Mapuche <sup>a</sup>	1.67	0.26-9.89	0.66	0.15-2.89	-	-	-	-
Others	0	-	0	-	10.40	1.33-49.48	14.70	3.83-42.69

<sup>a</sup>p<0.0001 when comparing same categories across populations

**Table A11.6** Stratifying *belonging to any ethnic minority group* by different demographic determinants of health, a comparison between the immigrant population and the missing values, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population with an ethnic background		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
Sex (male)	42.93	32.14-54.44	56.16	41.97-69.47
Age categories:				
<16 <sup>a</sup>	11.21	5.56-21.31	40.29	28.34-53.51
16-65 <sup>a</sup>	85.47	75.08-91.99	48.51	35.67-61.53
Over 65 <sup>a</sup>	3.32	1.43-7.49	11.21	3.21-32.47
Zone (rural)	27.01	17.04-40.01	17.82	9.92-29.94
Area:				
Northern <sup>a</sup>	64.81	47.03-79.30	21.38	8.09-45.66
Central <sup>a</sup>	12.10	4.27-29.80	31.32	17.65-49.24
Southern <sup>a</sup>	23.06	12.92-37.69	47.30	30.42-64.82
Marital status:				
Single	47.95	36.71-59.40	48.85	35.16-62.71
Married or cohabitant couple	39.66	28.43-52.09	36.19	24.69-49.53
Divorced	2.26	0.75-6.59	4.23	0.60-24.50
Widow <sup>a</sup>	10.13	4.11-22.89	10.73	2.87-32.81
Type of minority ethnic group:				
Aymara <sup>a</sup>	41.93	25.57-60.28	9.96	3.25-26.67
Atacameño	3.66	0.77-15.70	-	-
Mapuche <sup>a</sup>	53.02	34.44-70.79	-	-
Others	1.40	0.19-9.59	79.61	54.73-92.65

<sup>a</sup> p<0.0001 when comparing same categories across populations

**Table A11.7** Classic socioeconomic determinants of health of the International Immigrant Population and its missing values in Chile, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population		Those who preferred not to report their migration status	
	% or mean	95% CI	% or mean	95% CI
<b>EDUCATION(in the total populations)</b>				
Educational level: <sup>a</sup>				
No education <sup>c</sup>	2.38	1.51-3.73	21.96	18.64-25.68
Primary School <sup>c</sup>	18.79	16.05-21.88	33.92	29.58-38.55
High School <sup>c</sup>	33.02	29.39-36.87	18.80	15.34-22.83
Technical level <sup>c</sup>	16.81	14.13-19.88	8.86	6.59-11.80
University level <sup>c</sup>	27.32	23.16-31.98	7.98	4.75-13.11
<b>EDUCATION(in the ADULT population only, over 16 years old)</b>				
Educational level: <sup>a</sup>				
No education <sup>c</sup>	0.98	0.05-1.89	4.55	2.77-7.74
Primary School <sup>c</sup>	11.14	8.71-14.19	32.01	27.02-37.44
High School <sup>b</sup>	36.34	32.18-40.72	33.15	26.97-33.98
Technical level <sup>c</sup>	18.99	15.84-22.61	15.27	11.26-20.39
University level <sup>c</sup>	32.53	27.78-37.63	15.01	9.23-23.48
<b>INDIVIDUAL INCOME</b>				
Mean individual income per month (Chilean pesos) <sup>c</sup>	X= 618 620	512 261- 724 978	X= 340 871	246 524- 435 218
Mean individual income per month (USD) <sup>* c</sup>	X= 1 167.20	966.53- 1367.88	X= 643.15	465.13- 821.16

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.05 when comparing same categories across populations

<sup>c</sup> p<0.0001 when comparing same categories across populations

<b>HOUSEHOLD INCOME</b>				
Mean household income per month (Chilean pesos) <sup>c</sup>	X= 1 228 662	1 064 359- 1 392 964	X= 678 890	547 727- 809 454
Mean household income per month (USD) <sup>* c</sup>	X= 2318.23	2008.24- 2628.23	X= 1 280.92	1 033.44- 1 527.27
Mean household income <i>per capita</i> per month (Chilean pesos) <sup>c</sup>	X=395 750	323 820- 467 679	X= 174 386	140 941- 207 771
Mean household income <i>per capita</i> per month (USD) <sup>* c</sup>	X= 746.69	610.98- 882.41	X= 329.05	265.92- 392.02
Percentage living in each household income quintile, per capita: <sup>a</sup>				
Quintile 1 (poorest)	11.40	8.50-15.12	14.86	11.18-19.49
Quintile 2 <sup>c</sup>	9.14	6.75-12.28	21.18	15.50-28.25
Quintile 3	10.51	7.91-13.84	16.68	12.22-22.35
Quintile 4	17.69	14.25-21.73	18.13	13.00-24.70
Quintile 5 (wealthiest) <sup>c</sup>	51.26	46.13-56.35	29.15	23.05-36.10
Total Household income, per capita: <sup>a</sup>				
Quintile 1 (poorest) <sup>c</sup>	30 094	26 934-33 255	43 860	37 056- 50 665
Quintile 2	58 316	56 452- 60 179	55 041	50 0085-60 073
Quintile 3	86 190	83 640-88 740	77 178	72 979- 81 377
Quintile 4	130 051	126 274-133829	129 374	116 690 – 141 787
Quintile 5 (wealthiest) <sup>c</sup>	691 969	567 198 -816 749	411 183	327 582 – 498 785
<b>OCCUPATION</b>				
Current active worker (yes) <sup>c</sup>	60.96	57.06-64.73	71.96	67.28-76.21
Type of occupation: <sup>a</sup>				
Head/ manager	5.23	3.27-8.26	5.00	1.94-12.30
Self employed	17.50	14.02-21.64	21.97	16.71-28.33
Employee public system	6.35	4.04-9.85	6.23	3.15-11.94
Employee private system	54.27	49.10-59.35	53.76	43.22-63.98
Employee domestic service	16.65	13.40-20.50	13.03	8.82-18.84

\* USD in 2006 estimated through data available at the Chilean IRS, at [<http://www.sii.cl/pagina/valores/dolar/dolar2006.htm>] (530.275 Chilean pesos equivalent to 1 USD)

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.05 when comparing same categories across populations

<sup>c</sup> p<0.0001 when comparing same categories across populations

Dimensions	International immigrant population		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
<b><i>OCCUPATION (cont.)</i></b>				
Unemployed: <sup>a</sup>				
Can't find a job	0.83	0.41-1.69	0.27	0.04-1.69
Found a job and starts soon	1.01	0.38-2.62	1.57	0.60-4.01
Doesn't want to work	8.81	5.36-14.12	3.78	1.76-7.93
Has an intermittent informal job	0.78	0.23-2.58	0.32	0.09-1.03
Other reason, not stated	10.25	6.54-15.70	11.45	5.45-22.47
Inactive: <sup>a</sup>				
Student	44.30	37.45-51.36	33.79	25.38-43.37
Housewife	21.02	16.36-26.59	16.69	11.48-23.63
Retired	11.25	7.37-16.79	20.59	14.48-28.41
Ill <sup>c</sup>	1.76	0.91-3.37	11.55	6.77-19.00
Contractual status (doesn't have a contract) <sup>c</sup>	19.76	15.86-24.35	25.41	18.33-34.08
Type of contract: <sup>a</sup>				
Permanent	70.09	64.28-75.31	70.06	59.75-79.63
Temporary	29.91	24.69-35.72	29.34	20.37-40.25
Contractual workday dedication: <sup>a</sup>				
Part time	10.92	7.95-14.83	16.16	9.73-25.64
Full time	89.08	85.17-92.05	83.84	74.36-90.27

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.05 when comparing same categories across populations

<sup>c</sup> p<0.0001 when comparing same categories across populations

**Table A11.8 Household material** socioeconomic determinants of health of the International Immigrant Population in Chile and the MS-MV group, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population		Those who preferred not to report their migration status	
	% or mean	95% CI	% or mean	95% CI
Quality of the household Index: <sup>a</sup>				
Acceptable, all high quality	75.59	71.21-79.51	76.33	70.85-81.03
Sub-standard	23.03	19.18-27.40	23.19	18.52-28.63
Unfit <sup>c</sup>	1.37	0.83-2.27	0.48	0.28-0.81
Sanitary Index (deficient)	9.33	7.34-11.80	13.02	10.40-16.19
Overcrowded household (Townsend scale): <sup>a</sup>				
Overcrowded household * <sup>c</sup>	25.79	21.51-30.58	36.96	30.65-43.75
Household assets (owing a):				
Car <sup>b</sup>	11.68	9.43-14.38	4.41	2.81-6.85
Washing machine <sup>b</sup>	23.07	20.08-26.36	11.80	9.49-14.58
Fridge <sup>b,c</sup>	29.26	26.17-32.55	16.45	13.73-19.60
Calefont (water heater) <sup>b</sup>	24.06	20.92-27.50	10.07	7.82-12.87
Landline phone <sup>b</sup>	20.29	17.41-23.50	7.47	5.48-10.10
Cable TV <sup>b</sup>	15.31	12.65-18.40	5.58	3.81-8.11
Computer <sup>b</sup>	16.02	13.34-19.13	6.84	4.87-9.53
Internet <sup>b</sup>	12.50	9.97-15.56	4.11	2.50-6.68
Mobile phone <sup>b</sup>	63.47	59.57-67.21	34.54	28.84-40.73
Household asset index (HAI-PCA) <sup>b</sup>	X=1.05	0.79-1.31	X=-0.11	-0.32 – -0.09
Combined materiality index (CMI-PCA) <sup>b</sup>	X=1.17	0.90-1.44	X=-0.01	-0.23 – -0.19

\* As defined by the Townsend scale criteria, percentage of households with more than 1 person per room (total rooms of the household included).

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.0001 when comparing the IIP versus MS-MV

<sup>c</sup> p<0.0001 when comparing the IIP versus MS-MV

**Table A11.9 Access to and use of health care** of the International Immigrant Population and the missing values in Chile, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population living in Chile		Those who preferred not to report their migration status	
	% or mean	95% CI	% or mean	95% CI
Type of provision: <sup>a</sup>				
None or don't know	28.10	23.86-32.77	19.40	14.18-25.29
Public 100% free <sup>b</sup>	15.27	12.65-18.33	31.96	25.92-38.68
Public with some co-payment	39.09	34.73-43.63	41.38	34.96-48.12
Private	1.97	0.85-4.48	2.67	1.04-6.66
Other <sup>b</sup>	15.57	12.66-19.01	4.58	2.62-7.89
Use of cervical cancer screening programme (yes)	47.28	42.12-52.49	29.07	22.55-36.57
Mean number of attentions received from preventive health care programmes	X=1.97	1.66-2.27	X=2.27	1.89-2.65
Number of preventive health care attentions received, categories: <sup>a</sup>				
1 or 2 health attentions	67.51	56.81-76.65	65.59	57.28-73.05
3 or 4 health attentions	28.72	20.00-39.36	23.84	18.01-30.85
5 or 6 health attentions	0.97	0.21-4.35	6.85	3.15-14.27
7 or more health attentions	2.80	0.96-7.93	3.72	1.35-9.80

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.0001 when comparing the IIP versus MS-MV

Dimensions	International immigrant population living in Chile		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
Type of preventive health care attentions received the last time from any health control programme: <sup>a</sup>				
Well baby care <sup>b</sup>	9.48	5.46-15.94	58.74	50.21-66.77
Antenatal control <sup>b</sup>	11.03	6.27-18.68	1.18	0.40-3.40
Chronic disease control <sup>b</sup>	21.75	13.82-32.52	17.95	12.20-25.62
Gynaecologic control <sup>b</sup>	16.38	9.42-26.96	3.94	2.05-7.43
Preventive adult and elderly <sup>b</sup>	28.29	18.56-40.57	10.19	6.07-16.63
Other control attention	13.07	0.82-20.20	6.60	3.21-13.10
Don't remember <sup>c</sup>	-	-	1.39	0.52-3.65

<sup>a</sup> p<0.0001 when comparing categories within the same variable for either population

<sup>b</sup> p<0.0001 when comparing the IIP versus MS-MV



**Table A11.10** Partially adjusted Relative Risk Ratio (RRR) (by socio-demographics) of health care provision type in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Provision type Missing values population		Provision type in the International Immigrant population	
	RRR	95% CI	RRR	95% CI
<b><i>PUBLIC FREE OF CHARGE</i></b> (no health care provision as baseline)				
Sex (female=1)	1.52	0.95-2.43	1.90	1.18-3.07
Age	1.00	0.98-1.02	1.01	1.002-1.03
Zone: (rural=1)	1.98	0.70-5.57	3.67	1.86-7.22
Number of household members	0.99	0.83-1.18	1.05	0.89-1.25
Educational level:				
No education	3.48	1.62-7.48	26.05	4.62-46.21
Primary School	4.06	1.62-9.79	5.74	2.30-14.35
High School	2.54	0.87-7.41	4.43	1.82-10.76
Technical level	1.38	0.53-3.63	5.93	2.30-15.21
University level	1.00	(no signif. trend)	1.00	(signif. trend)
Household income per capita continuous	0.99	0.99-0.99	0.99	0.99-0.99
<b><i>PUBLIC WITH CO-PAYMENT</i></b> (no health care provision as baseline)				
Sex (female=1)	1.26	0.81-1.95	1.82	1.23-2.68
Age	1.00	0.99-1.02	1.008	0.99-1.02
Zone: (rural=1)	1.93	0.65-5.77	1.96	1.07-3.58
Number of household members	1.14	0.94-1.39	1.09	0.94-1.27

Educational level:				
No education	2.77	1.26-6.12	5.40	1.50-19.39
Primary School	3.42	1.65-7.09	3.08	1.35-7.04
High School	3.12	0.57-4.43	3.70	1.74-7.88
Technical level	1.59	0.57-4.43	3.75	1.76-8.02
University level	1.00	(no signif. trend)	1.00	(signif. trend)
Household income per capita continuous	0.99	0.99-1.00	0.99	0.99-1.00
<b><i>PRIVATE</i> (no health care provision as baseline)</b>				
Sex (female=1)	0.74	0.28-2.00	2.02	0.48-8.45
Age	1.02	1.00-1.05	1.08	1.03-1.13
Zone: (rural=1)	0.13	0.01-1.23	0.35	0.03-3.95
Number of household members	0.92	0.64-1.32	0.97	0.64-1.48
Educational level:				
No education	0.34	0.04-3.92	0.13	0.01-0.91
Primary School	0.43	0.006-3.85	5.10	0.47-55.12
High School	0.09	0.006-1.57	0.97	0.10-8.89
Technical level	0.36	0.02-6.11	6.20	0.88-1.00
University level	1.00	-	1.00	-
Household income per capita continuous	0.99	0.99-0.99	0.99	0.99-1.00
<b><i>OTHER NOT STATED</i> (no health care provision as baseline)</b>				
Sex (female=1)	1.92	0.90-4.13	0.98	0.63-1.52
Age	0.99	0.90-4.13	1.004	0.99-1.01
Zone: (rural=1)	0.45	0.96-1.01	3.05	1.41-6.54
Number of household members	0.92	0.12-1.72	1.04	0.87-1.26
Educational level:				
No education	16.77	2.66-86.12	2.83	0.70-11.30
Primary School	15.17	1.95-87.23	2.47	1.25-4.88
High School	53.17	7.64-96.12	1.73	0.91-2.35

Technical level	8.47	0.81-18.52	1.87	0.88-3.96
University level	1.00	(signif. trend)	1.00	(no signif. trend)
Household income per capita continuous			0.9	0.99-1.01

**Table A11.11** Adjusted Odds Ratio (OR) (by socio-demographics) of *access to Pap smear* in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Access to Pap smear in the International Immigrant population		Access to Pap smear in those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.01	0.97-1.06	0.98	0.95-1.01
Marital status:				
Single	1.00	(no signif. trend)	1.00	(signif. trend)
Married	4.71	1.81-12.26	5.47	1.47-14.32
Divorced	1.94	0.45-8.35	5.18	1.13-23.64
Widow	0.45	0.02-8.82	2.83	0.53-15.45
Ethnicity: any	3.70	0.38-35.27	0.23	0.05-0.95
Zone:				
Rural=1	4.35	0.80-23.56	2.51	1.20-5.22
Area:				
Northern	1.00	-	1.00	-
Central	1.73	0.45-6.57	1.22	0.30-4.90
Southern	0.68	0.13-3.52	1.52	0.36-6.34
Mean number of household members	0.81	0.69-0.93	0.94	0.74-1.12

<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	0.48	0.05-4.38	0.01	0.007-0.15
Primary School	0.37	0.11-1.21	0.33	0.04-2.31
High School	0.34	0.11-1.08	0.81	0.17-3.36
Technical level	1.89	0.44-8.03	0.96	0.19-4.83
University level	1.00	-	1.00	(no signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	0.47	0.08-2.71	1.17	0.39-3.48
Quintile 2	0.54	0.12-2.71	0.67	0.25-1.76
Quintile 3	1.75	0.47-6.56	0.51	0.17-1.49
Quintile 4	0.87	0.35-2.16	0.98	0.33-2.88
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed	0.90	0.49-1.15	0.17	0.04-0.63
Has a contract	0.71	0.29-1.73	0.89	0.19-4.18
Type of contract: Temporary	0.37	0.16-0.87	1.90	0.48-8.08
Workday dedication: Full time	0.41	0.10-1.63	3.73	0.56-24.49

<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	(signif. trend)	1.00	-
Sub-standard	0.34	0.12-0.99	7.00	0.04-13.00
Unfit	0.01	0.001-0.84	19.05	0.05-63.80
Sanitary Index (deficient=0)	0.37	0.07-2.02	0.30	0.001-8.34
Overcrowded household (Townsend):	0.86	0.34-2.14	9.13	0.02-31.59
HAI	1.10	0.96-1.25	0.08	0.002-2.78
CMI	1.10	0.96-1.25	1.92	0.05-11.38
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

**Table A11.12** Adjusted Odds Ratio (OR) (by socio-demographics) of *any mental attention received in the past 3 months* in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)\*

Social determinants	Any mental health attention in the International Immigrant population		Any mental health attention in those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.005	0.98-1.04	0.99	0.97-1.01
Sex (female=1)	1.29	0.85-1.96	0.86	0.53-1.38
Marital status:				
Single	1.00	-	1.00	-
Married	1.22	0.64-2.32	0.91	0.42-1.95
Divorced	2.08	0.84-5.10	2.13	0.54-8.28
Widow	1.37	0.36-5.14	1.64	0.36-7.42
Ethnicity: any	0.70	0.24-1.94	0.67	0.25-1.77
Zone:				
Rural=1	0.59	0.34-1.03	0.44	0.24-0.91
Area:				
Northern	1.00	-	1.00	(no signif. trend)
Central	0.59	0.29-1.20	1.38	0.58-3.26
Southern	1.10	0.51-2.38	2.97	1.23-7.06
Mean Number of household members	0.83	0.71-0.96	0.90	0.78-1.05
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	1.23	0.37-4.08	3.39	0.98-11.75
Primary School	0.81	0.38-1.32	5.29	1.13-20.36
High School	0.76	0.41-1.41	1.72	0.49-6.00

Technical level	1.17	0.59-2.33	0.97	0.26-3.57
University level	1.00	-	1.00	(no signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	1.19	0.58-2.44	1.44	0.66-3.16
Quintile 2	1.18	0.54-2.56	0.69	0.31-1.53
Quintile 3	0.93	0.46-1.87	0.74	0.34-1.57
Quintile 4	1.24	0.70-2.19	1.12	0.48-2.60
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed	0.57	0.19-1.69	0.77	0.22-2.72
Has a contract	1.67	0.66-4.20	1.39	0.18-10.23
Type of contract: Temporary	1.37	0.63-2.97	0.18	0.04-0.69
Workday dedication: Full time	0.92	0.34-2.50	0.32	0.07-1.24
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	0.80	0.02-2.61	0.05	0.001-6.21
Unfit	0.752	0.001-2.36	0.01	0.003-5.14
Sanitary Index (deficient=0)	1.82	0.09-14.23	9.06	0.14-15.56
Overcrowded household (Townsend):	0.59	0.01-1.88	0.06	0.005-8.02
HAI	4.58	0.01-59.32	3.35	0.14-8.00
CMI	0.22	0.02-12.36	0.01	0.003-8.28
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

\*Access to and use of health care variables excluded from this particular analysis due to poor fit of the model



**Table A11.13** Adjusted Odds Ratio (OR) (by socio-demographics) of *any dental attention received in the past 3 months* in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)\*

Social determinants	Any dental health attention in the International Immigrant population		Any dental health attention in those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.02	0.98-1.04	0.98	0.95-1.01
Sex (female=1)	0.56	0.33-0.92	2.42	1.13-5.48
Marital status:				
Single	1.00	(no signif. trend)	1.00	(no signif. trend)
Married	0.93	0.53-1.73	1.51	0.26-8.76
Divorced	0.16	0.02-1.16	0.83	0.01-8.54
Widow	0.03	0.00-0.33	0.04	0.002-0.92
Ethnicity: any	1.32	0.48-3.65	0.48	0.13-2.31
Zone:				
Rural=1	1.25	0.62-2.53	1.91	0.79-4.58
Area:				
Northern	1.00	-	1.00	-
Central	1.38	0.58-3.12	1.05	0.30-3.62
Southern	1.19	0.45-3.14	0.86	0.24-2.98
Mean Number of household members	0.88	0.4-1.88	0.89	0.67-1.20
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	0.16	0.03-0.96	0.03	0.004-0.33
Primary School	0.71	0.05-5.45	0.30	0.04-1.32
High School	0.84	0.38-1.88	0.27	0.07-1.24
Technical level	0.77	0.34-1.77	0.02	0.004-0.68
University level	1.00	(no signif. trend)	1.00-	(no signif. trend)

Household income, per capita:				
Quintile 1 (poorest)	0.57	0.20-1.54	1.44	0.38-5.41
Quintile 2	0.18	0.05-0.68	0.80	0.21-2.95
Quintile 3	1.28	0.64-2.56	0.80	0.23-3.25
Quintile 4	0.72	0.36-1.44	1.47	0.41-5.16
Quintile 5 (wealthiest)	1.00	(no signif. trend)	1.00	-
Unemployed	1.07	0.36-3.15	0.56	0.11-2.89
Has a contract	0.86	0.29-2.56	0.22	0.02-2.40
Type of contract: Temporary	0.30	0.10-0.91	0.35	0.08-1.42
Workday dedication: Full time	0.54	0.13-2.14	0.74	0.08-6.48
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	0.37	0.03-4.51	3.62	0.14-9.29
Unfit	0.05	0.002-1.01	2.47	0.02-12.54
Sanitary Index (deficient=0)	3.20	0.02-15.24	0.01	0.001-9.78
Overcrowded household (Townsend):	0.13	0.07-2.46	4.86	0.02-8.83
HAI	3.04	0.01-15.57	0.03	0.002-5.78
CMI	0.30	0.08-1.229	0.06	0.001-3.28
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

\*Access to and use of health care variables excluded from this particular analysis due to poor fit of the model

**Table A11.14** Adjusted Odds Ratio (OR) (by socio-demographics) of *any specialist attention received in the past 3 months* in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)\*

Social determinants	Any specialist health attention in the International Immigrant population		Any specialist health attention in those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.01	1.002-1.02	0.99	0.97-1.01
Sex (female=1)	1.64	0.84-3.18	1.70	0.87-3.32
Marital status:				
Single	1.00	-	1.00	-
Married	0.96	0.49-1.85	1.39	0.72-2.66
Divorced	2.47	0.96-6.35	0.17	0.01-1.60
Widow	0.33	0.07-1.43	0.27	0.04-1.71
Ethnicity: any	0.40	0.15-1.10	0.21	0.01-0.79
Zone:				
Rural=1	0.98	0.49-1.93	0.65	0.64-1.23
Area:				
Northern	1.00	(no signif. trend)	1.00	-
Central	2.93	1.01-8.46	1.50	0.55-4.08
Southern	2.39	0.74-7.91	1.25	0.44-3.34
Mean Number of household members	0.62	0.49-0.77	0.68	0.22-0.98
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	0.20	0.06-0.63	1.21	0.30-4.90
Primary School	0.23	0.08-0.68	0.66	0.10-4.07
High School	0.54	0.27-1.08	0.58	0.16-2.10
Technical level	0.58	0.25-1.31	1.03	0.28-3.77
University level	1.00	(no signif. trend)	1.00	-

Household income, per capita:				
Quintile 1 (poorest)	2.20	0.81-5.98	0.54	0.20-1.21
Quintile 2	0.30	0.06-1.33	0.61	0.23-1.61
Quintile 3	0.91	0.33-2.12	0.65	0.17-2.44
Quintile 4	1.05	0.52-2.11	0.66	0.18-2.32
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed	0.41	0.08-1.90	1.10	0.28-4.23
Has a contract	1.39	0.52-3.74	6.90	0.31-33.21
Type of contract: Temporary	1.46	0.49-4.33	1.20	0.14-10.23
Workday dedication: Full time	1.15	0.37-3.56	0.25	0.06-9.54
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	1.18	0.03-6.21	0.03	0.003-3.47
Unfit	8.63	0.35-47.96	0.01	0.008-15.21
Sanitary Index (deficient=0)	0.03	0.001-7.56	9.19	0.04-20.07
Overcrowded household (Townsend):	2.88	0.08-9.87	0.01	0.003-1.12
HAI	0.03	0.001-2.42	3.82	0.01-7.56
CMI	5.28	0.04-16.95	0.21	0.02-6.86
<b>MULTIPLICATIVE INTERACTION EFFECTS: no interactions found</b>				

\*Access to and use of health care variables excluded from this particular analysis due to poor fit of the model

**Table A11.15** Prevalence of **any health problem/accident, medical and emergency care in the last month** in the International Immigrant Population and its missing values in Chile, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population living in Chile		Those who preferred not to report their migration status	
	% or mean	95% CI	% or mean	95% CI
Any health problem/ accident: And asked for medical care <sup>a</sup>	10.80 78.75	8.70-13.32 69.76-85.62	14.12 92.74	11.21-17.65 86.35-96.27
Mean number of medical attentions in the last month	X=2.24	1.81-2.66	X=2.67	1.94-3.40
Number of medical attentions in the last month, categories:				
One	59.75	48.89-69.74	55.57	44.51-66.10
Two	16.71	9.66-27.36	15.43	9.37-21.86
Three	8.23	4.86-13.59	7.72	4.56-12.60
Four or more	15.31	9.53-23.67	22.18	14.01-33.26
Mean number of emergency attentions in the last month <sup>a</sup>	X=1.13	1.02-1.25	X=1.40	1.29-1.60
Number of emergency attentions in the last month, categories:				
One <sup>a</sup>	92.76	85.04-96.66	72.34	58.61-82.85
Two <sup>a</sup>	3.36	1.07-10.01	23.79	13.92-37.60
Three	2.01	0.56-6.94	1.37	0.43-4.25
Four or more	1.87	0.36-9.03	2.49	0.96-6.32

<sup>a</sup> p<0.0001 when comparing across populations

<sup>b</sup> p<0.05 when comparing across populations

**Table A11.16** Adjusted Odds Ratio (OR) (by demographic variables) of presenting **any health problem or accident** in Chile, a comparison between the International Immigrant Population and the missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	International Immigrants		Those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	1.02	0.96-1.06	1.002	0.98-1.02
Sex (female=1)	2.10	0.84-5.22	1.29	0.82-2.91
Marital status:				
Single	1.00	-	1.00	-
Married	2.05	0.82-5.13	1.79	0.85-3.74
Divorced	3.84	0.86-17.00	2.96	0.76-11.85
Widow	0.61	0.04-8.52	2.55	0.57-12.82
Ethnicity: any	0.60	0.06-5.59	0.54	0.18-1.66
Zone:				
Rural=1	1.96	0.42-9.08	1.09	0.69-1.71
Area:				
Northern	1.00	-	1.00	-
Central	1.35	0.44-4.18	0.98	0.63-2.21
Southern	0.44	0.06-2.99	1.33	0.57-3.11
Mean number of household members	0.93	0.79-1.21	0.92	0.79-1.24

<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	0.10	0.002-4.73	3.86	0.93-15.90
Primary School	0.78	0.21-2.80	1.30	0.35-4.94
High School <sup>b</sup>	1.006	0.33-2.98	2.11	0.55-8.11
Technical level	0.50	0.10-2.45	0.42	0.08-2.15
University level	1.00	-	1.00	-
Household income, per capita:				
Quintile 1 (poorest)	0.95	0.13-6.76	1.67	0.78-3.56
Quintile 2	0.12	0.01-1.28	1.22	0.58-2.55
Quintile 3	3.95	0.30-11.97	1.21	0.53-2.75
Quintile 4	2.63	1.79-4.69	1.52	0.68-3.42
Quintile 5 (wealthiest)	1.00	(no signif. trend)	1.00	(no signif. trend)
Unemployed	0.85	0.28-2.57	0.55	0.16-1.89
Has a contract	0.69	0.30-1.60	0.69	0.07-6.40
Type of contract: Temporary	2.58	1.10-6.03	0.14	0.03-0.60
Workday dedication: Full time	2.15	0.36-12.68	0.74	0.05-9.91
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	(no signif. trend)
Sub-standard	1.98	0.89-4.40	0.10	0.09-1.73
Unfit	6.07	0.50-73.08	0.04	0.001-0.90
Sanitary Index (deficient=0)	4.18	0.89-19.63	0.41	0.49-3.96
Overcrowded household (Townsend):	0.97	0.37-2.50	0.01	0.004-4.53
HAI	1.09	0.95-1.26	7.17	0.07-12.22
CMI	1.02	0.93-1.11	0.07	0.009-5.43

<b>ACCESS TO HEALTH:</b>				
Type of provision:				
Private	1.00	(signif. trend)	1.00	-
Public 100% free	7.46	1.14-4.88	2.51	0.87-7.74
Public with some co-payment	9.34	1.99-43.82	1.21	0.47-3.05
None/don't know	17.60	3.64-84.90	0.87	0.21-5.10
Other	-	-	-	-
Use of cervical cancer screening service	2.06	0.50-8.54		
Number of preventive health care attentions count	-	-	-	-
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				



**Table A11.17** Odds Ratio (OR) of presenting **any health problem or accident** in the **IIP missing values by age groups**, adjusted by demographics. CASEN survey, 2006 (weighted sample size 108 599) (statistical significant values appear in grey shade in the table)

Variables	under 16 years old			Working age (16 to 65)			Elderly (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.86	0.79- 0.96		1.03	0.99- 1.07		1.05	0.96- 1.16	
Sex (female=1)	1.49	0.80- 2.79		0.91	0.46- 1.82		4.29	0.80- 22.91	
Marital status:									
Single	1.00	-		1.00	(no signif. trend)		1.00	(no signif. trend)	
Married	-	-		3.07	1.28- 7.32		0.17	0.01- 1.60	
Divorced	-	-		4.28	0.91- 20.18		1.33	0.06- 29.04	
Widow	-	-		12.09	1.75- 83.32		0.02	0.001- 0.44	
Ethnicity: any	0.11	0.03- 0.43		0.48	0.12- 1.82		1.004	0.12- 8.33	
Zone: rural=1	1.20	0.58- 2.47		1.12	0.56- 2.29		0.95	0.10- 8.77	
Area:									
Northern	1.00	-		1.00	-		1.00	(signif. trend)	
Central	0.70	0.22- 2.22		1.54	0.52- 4.56		13.79	1.12- 65.23	
Southern	1.09	0.30- 3.99		1.97	0.60- 6.46		9.26	0.79- 17.21	
Number of household members	0.80	0.60- 1.06		1.06	0.87- 1.31		1.02	0.69- 1.52	
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		0.06	0.004- 0.84		0.02	0.01- 0.20	
Primary School	-	-		1.46	0.37- 5.77		0.01	0.001- 0.80	
High School	-	-		1.74	0.45- 6.74		0.04	0.002- 0.44	
Technical level	-	-		0.45	0.08- 2.54		-	-	
University level	1.00	-		1.00	(no signif. trend)		1.00	(signif. trend)	

Household income:									
Quintile 1 (poorest)	1.43	0.43-	4.76	2.12	0.60-	7.46	7.04	0.85-	60.25
Quintile 2	0.62	0.21-	1.85	2.11	0.67-	6.62	6.37	0.64-	52.72
Quintile 3	0.75	0.25-	2.24	2.27	0.58-	8.77	1.05	0.02-	11.75
Quintile 4	0.69	0.25-	5.43	0.90	0.27-	3.03	8.54	0.09-	18.25
Quintile 5 (wealthiest)	1.00	-		1.00	-		1.00	-	
Unemployed	-	-		0.13	0.02-	0.83	2.76	0.21-	35.48
Has a contract	-	-		0.71	0.03-	7.15	-	-	
Job dedication: full time	-	-		0.60	0.04-	7.25	-	-	
Temporary contract	-	-		0.19	0.09-	0.68	-	-	
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	(signif. trend)	
Sub-standard	-	-		3.22	0.07-	14.21	0.04	0.001-	0.10
Unfit	1.41	0.36	5.42	7.26	0.02-	11.94	-	-	
Sanitary Index (deficient=0)	0.36	0.05-	2.27	0.15	0.02-	10.12	3.53	1.21-	11.23
Overcrowded household (Townsend):	1.41	0.26-	7.45	9.31	0.66-	13.14	0.10	0.001-	0.98
HAI	-	-		0.03	0.002-	5.04	3.40	1.25-	26.31
CMI	18.67	0.02-	54.21	3.24	0.09-	10.82	0.24	0.06-	0.87

**Table A11.18** Odds Ratio (OR) of presenting any health problem or accident in the **International Immigrant population by age groups**, adjusted by demographics. CASEN survey, 2006 (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.92	0.83-	1.05	1.01	0.99-	1.04	1.01	0.90-	1.10
Sex (female=1)	1.08	0.41-	2.80	1.87	1.08-	3.24	0.29	0.02-	1.82
Marital status:									
Single	1.00	-		1.00	-		1.00	-	
Married	-	-		1.05	0.56-	1.96	0.30	0.02-	3.27
Divorced	-	-		2.48	0.88-	6.96	0.10	0.004-	2.22
Widow	-	-		2.57	0.55-	11.96	0.41	0.02-	7.00
Ethnicity: any	6.41	0.77-	53.33	0.44	0.15-	1.23	0.89	0.06-	12.00
Zone: rural=1	0.31	0.02-	3.82	1.09	0.56-	2.14	1.14	0.31-	4.11
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	0.78	0.15-	3.87	0.82	0.36-	1.86	0.50	0.05-	4.51
Southern	2.68	0.55-	12.47	0.68	0.23-	2.00	1.02	0.06-	15.40
Number of household members	0.93	0.57-	1.52	0.94	0.78-	1.12	0.99	0.64-	1.21
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		0.96	0.19-	4.71	42.50	11.72-	73.48
Primary School	-	-		0.64	0.24-	1.64	4.03	0.43-	37.65
High School	-	-		1.07	0.50-	2.30	4.68	1.08-	68.60
Technical level	-	-		1.07	0.45-	2.51	1.47	0.04-	50.21
University level	1.00	-		1.00	-		1.00	(no signif. trend)	

Household income:									
Quintile 1 (poorest)	0.46	0.04-	4.35	1.66	0.65-	4.23	2.60	0.40-	16.69
Quintile 2	0.93	0.17-	5.00	0.41	0.10-	1.61	18.88	6.13-	34.21
Quintile 3	0.90	0.13-	5.85	1.23	0.56-	2.69	0.15	0.01-	1.48
Quintile 4	0.80	0.12-	5.11	2.33	1.21-	4.49	5.49	0.56-	53.11
Quintile 5 (wealthiest)	1.00	-		1.00	(signif. trend)		1.00	(no signif. trend)	
Unemployed	-	-		0.40	0.11-	1.36	2.73	0.47-	15.84
Job dedication: full time	-	-		1.94	0.92-	6.23	-	-	
Has a contract	-	-		0.68	0.06-	1.55	-	-	
Temporary work	-	-		2.18	0.97-	4.90	-	-	
Low SES cluster	6.56	1.16-	38.65	0.89	0.09-	2.06	12.06	1.57-	92.57
Medium SES cluster	2.14	1.14-	11.07	1.14	0.06-	2.04	8.14	1.56-	42.50
High SES cluster	1.00	-	Signif trend	1.00	-	Not sign trend	1.00	-	Signif trend
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	0.23	0.01-	1.12	2.75	0.02-	13.12	0.70	0.01-	39.88
Unfit	2.80	0.21-	37.09	17.20	0.02-	21.33	0.50	0.09-	28.41
Sanitary Index (deficient=0)	0.46	0.06-	3.46	2.08	0.02-	19.54	1.19	0.08-	11.71
Overcrowded household (Townsend):	1.16	0.09-	6.81	1.80	0.10-	2.93	0.40	0.05-	3.38
HAI	-	-		0.80	0.01-	32.14	2.39	0.70-	7.82
CMI	0.64	0.05-	7.84	12.12	0.06-	62.54	0.18	0.07-	1.89

<b>MIGRATION-RELATED DETERMINANTS:</b>									
Years living in the country:									
Less than a year	1.00	-		1.00	-		1.00	(signif. trend)	
1 to 5 years	3.94	0.40-	38.74	0.70	0.31-	1.57	-		
6 to 10 years	11.05	0.80-	51.14	0.76	0.37-	1.54	0.36	0.10-	26.63
11 to 15 years	13.68	0.35-	53.21	0.45	0.12-	1.64	0.01	0.004-	0.36
16 to 20 years	-	-		1.17	0.43-	3.16	0.05	0.004-	0.56
21 or more years	-	-		1.59	0.69-	3.69	0.25	0.02-	2.37
Country of origin:									
Peru	2.00	0.23-	16.25	1.99	0.89-	4.40	-	-	
Argentina	1.87	0.31-	11.09	1.60	0.69-	3.68	6.08	0.67-	55.16
Bolivia	0.08	0.007-	0.91	1.40	0.41-	4.76	0.28	0.03-	2.08
Ecuador	5.92	0.58-	59.66	1.29	0.26-	6.39	-	-	

**Table A11.19** Adjusted Incidence Rate Ratio (IRR) (by demographic variables) of the **number of medical care received in the past month** in Chile (weighted zero-inflated negative binomial regression), a comparison between the International Immigrant Population and the missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	International Immigrants		Those who preferred not to report their migration status	
	IRR	95% CI	IRR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	1.01	1.005-1.02	1.001	0.98-1.01
Sex (female=1)	0.98	0.45-2.11	1.76	1.14-2.72
Marital status:				
Single	1.00	-	1.00	-
Married	1.14	0.84-1.55	1.82	0.97-3.39
Divorced	0.89	0.54-1.49	1.55	0.77-3.44
Widow	1.007	0.57-1.77	0.62	0.26-1.48
Ethnicity: any	0.86	0.59-1.25	0.85	0.44-1.62
Zone:				
Rural=1	0.67	0.49-0.91	0.95	0.61-1.46
Area:				
Northern	1.00	-	1.00	-
Central	1.93	0.92-4.04	0.90	0.48-1.68
Southern	1.31	0.68-2.52	0.68	0.36-1.27
Mean Number of household members	1.09	0.97-1.22	1.10	0.97-1.26
<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	0.39	0.02-7.22	3.54	2.24-5.61
Primary School	1.57	0.17-14.55	1.57	1.09-2.26
High School	0.44	0.12-1.62	4.33	2.14-8.73
Technical level	0.36	0.05-2.39	2.09	0.99-4.41

University level	1.00	-	1.00	(signif. trend)
Household income, per capita:				
Quintile 1 (poorest)	0.86	0.56-1.32	0.86	0.56-1.32
Quintile 2	0.69	0.39-1.22	0.69	0.39-1.22
Quintile 3	1.63	0.33-2.87	1.63	0.92-2.87
Quintile 4	1.17	0.88-1.72	1.17	0.87-1.72
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed	1.61	0.17-3.86	0.83	0.33-1.86
Has a contract	0.68	0.34-1.35	0.81	0.22-2.21
Type of contract: Temporary	1.13	0.69-1.85	0.65	0.22-1.89
Work dedication: full	0.55	0.24-1.29	0.75	0.25-2.21
<b>MATERIAL SOCIOECONOMIC DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	0.85	0.66-1.10	0.57	0.001-26.86
Unfit	0.61	0.37-1.01	0.02	0.001-5.21
Sanitary Index (deficient=0)	1.32	0.54-3.21	5.12	0.01-8.27
Overcrowded household (Townsend):	0.86	0.36-2.00	0.02	0.001-32.12
HAI	0.33	0.02-4.25	3.21	0.01-12.45
CMI	3.16	0.22-4.62	0.02	0.001-2.37

<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	-	1.00	-
Public 100% free	0.87	0.26-2.90	0.91	0.64-1.12
Public with some co-payment	0.39	0.06-2.40	2.14	0.74-3.10
None/don't know	0.89	0.08-9.78	5.01	0.98-10.26
Other	0.68	0.18-2.56	0.78	0.41-1.84
Use of cervical cancer screening service	1.31	0.68-2.54	1.52	0.86-2.10
Number of preventive health care attentions (count)	1.25	0.81-1.92	1.12	0.45-2.41
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				



**Table A11.20** Adjusted Incidence Rate Ratio (IRR) (by demographic variables) of the **number of emergency care attentions received in the past month** in Chile (weighted zero-inflated negative binomial regression), a comparison between the IIP and the missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	International Immigrants		Those who preferred not to report their migration status	
	IRR	95% CI	IRR	95% CI
<b>DEMOGRAPHIC DETERMINANTS:</b>				
Age	1.004	0.98-1.02	0.99	0.98-1.002
Sex (female=1)	1.51	0.84-2.71	1.02	0.79-1.32
Marital status:				
Single	1.00	-	1.00	-
Married	1.30	0.46-3.67	1.30	0.77-2.17
Divorced	0.77	0.18-3.20	0.90	0.56-1.45
Widow	1.96	0.30-12.70	1.41	0.64-3.11
Ethnicity: any	0.72	0.25-2.06	0.93	0.41-2.12
Zone:				
Rural=1	1.09	0.54-2.21	1.31	0.74-2.34
Area:				
Northern	1.00	-	1.00	-
Central	0.71	0.21-2.33	1.17	0.91-1.50
Southern	0.66	0.18-2.35	1.33	0.90-1.95
Mean Number of household members	1.10	1.01-1.21	0.99	0.92-1.08
<b>SOCIOECONOMICS DETERMINANTS:</b>				
Educational level:				
No education	3.08	0.63-14.97	1.34	0.90-1.98
Primary School	2.05	0.51-8.27	0.99	0.65-1.49

High School	3.35	0.89-12.49	0.82	0.55-1.23
Technical level	4.74	0.95-23.49	0.89	0.43-1.83
University level	1.00	-	1.00	-
Household income, per capita:				
Quintile 1 (poorest)	0.86	0.56-1.32	1.36	0.87-2.11
Quintile 2	0.69	0.39-1.22	1.03	0.76-1.40
Quintile 3	1.63	0.33-2.87	1.07	0.72-1.60
Quintile 4	1.17	0.88-1.72	0.97	0.73-1.27
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed	1.01	0.97-1.05	0.87	0.57-1.33
Has a contract	0.73	0.38-1.39	0.29	0.34-0.59
Type of contract: Temporary	0.95	0.65-1.39	0.99	0.56-1.73
Work dedication: full	0.61	0.40-0.91	1.41	0.93-2.15
<b>MATERIAL SOCIOECONOMIC DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	1.009	0.84-1.20	0.96	0.06-13.21
Unfit	0.87	0.73-1.04	0.40	0.02-42.15
Sanitary Index (deficient=0)	0.93	0.64-1.36	1.46	0.04-46.28
Overcrowded household (Townsend):	1.56	0.90-2.73	0.86	0.02-36.56
HAI	0.55	0.90-2.73	3.92	0.01-9.62
CMI	1.80	0.44-7.24	0.25	0.01-25.14
<b>ACCESS TO HEALTH:</b>				
Type of provision:				
Private	1.00	(signif. trend)	1.00	-
Public 100% free	1.46	1.04-2.05	1.12	0.87-1.69
Public with some co-payment	1.12	1.008-1.25	2.14	0.74-3.12
None/don't know	1.001	0.95-1.05	0.89	0.47-1.32

Other	-	-	1.08	0.91-2.15
Use of cervical cancer screening service	0.14	0.01-1.09	0.87	0.12-3.54
Number of preventive health care attentions (count)	1.64	1.10-2.43	2.13	0.87-5.12
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

**Table A11.21** Prevalence of **any disability** of the International Immigrant Population and the missing values in Chile, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrant population living in Chile		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
Any disability <sup>a</sup>	3.55	2.49-5.02	7.42	5.28-10.33
Type of disability:				
Visual <sup>a</sup>	1.00	0.48-2.07	1.68	0.75-3.75
Hearing	0.59	0.22-1.58	1.10	0.51-2.39
Speaking	0.19	0.039-0.95	0.47	0.21-1.04
Physical <sup>a</sup>	0.38	0.19-0.76	0.75	0.32-1.75
Learning	0.23	0.074-0.74	1.07	0.49-2.29
Psychiatric	0.21	0.059-0.71	0.99	0.41-2.37
Number of disability:				
One disability <sup>a</sup>	3.55	2.49-5.02	7.42	5.28-10.33
Two disabilities	0.96	0.49-1.89	1.45	0.56-3.66
Three disabilities	0.16	0.040-0.60	0.77	0.17-3.54
Cause of disability:				
Birth	23.09	10.64-43.06	26.57	15.80-41.09
Disease	45.15	28.70-62.73	35.88	21.04-54.03
Accident <sup>a</sup>	2.92	0.99-8.26	17.69	8.70-32.63
Other <sup>a</sup>	26.73	13.00-47.11	16.27	8.01-30.26

<sup>a</sup>p<0.0001 when comparing age groups<sup>b</sup>p<0.05 when comparing age groups

**Table A11.22** Adjusted Odds Ratio (OR) (by demographics) of presenting **any disability** in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	Any disability among immigrants		Any disability in those who preferred not to report their migration status	
	OR	95% CI	OR	95% CI
<b>SOCIO-DEMOGRAPHICS:</b>				
Age	1.04	1.02-1.06	1.04	1.02-1.06
Sex (female=1)	0.56	0.25-1.25	0.39	0.20-0.75
Marital status:				
Single	1.00	-	1.00	(no signif. trend)
Married	0.79	0.29-2.17	0.31	0.14-0.72
Divorced	2.57	0.52-12.73	0.84	0.12-1.52
Widow	1.07	0.26-4.39	0.31	0.07-1.21
Ethnicity: any	1.06	0.17-6.48	0.89	0.30-2.65
Zone:				
Rural=1	1.56	0.80-3.04	0.61	0.28-1.30
Area:				
Northern	1.00	-	1.00	-
Central	0.48	0.14-1.64	0.46	0.15-1.39
Southern	0.89	0.27-2.91	1.22	0.36-4.07
Mean Number of household members:	0.97	0.17-1.18	1.08	0.84-1.39
<b>SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education	1.94	0.41-9.12	7.23	1.05-16.20
Primary School	1.95	0.70-5.40	9.65	1.90-80.41
High School	1.05	0.37-2.91	4.81	1.16-38.52
Technical level	0.07	0.01-0.48	6.60	1.93-72.13
University level	1.00	(no signif. trend)	1.00	(signif. trend)

Household income, per capita:				
Quintile 1 (poorest)	2.09	0.85-5.10	5.79	1.24-26.97
Quintile 2	1.53	0.57-4.13	3.05	0.71-12.97
Quintile 3	0.68	0.18-2.51	2.23	0.50-9.90
Quintile 4	1.14	0.33-3.92	2.93	0.66-12.96
Quintile 5 (wealthiest)	1.00	-	1.00	-
Unemployed:	0.43	0.10-1.76	0.67	0.17-2.63
Has a contract	2.03	0.43-9.63	0.09	0.002-1.98
Type of contract: Temporary	0.61	0.14-2.51	0.51	0.08-3.24
Workday dedication: Full time	2.27	0.35-14.45	0.02	0.001-0.89
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard	0.90	0.44-1.81	0.10	0.01-6.75
Unfit	4.37	0.86-22.01	0.30	0.01-8.40
Sanitary Index (deficient=0)	0.82	0.37-1.81	1.85	0.02-11.35
Overcrowded household (Townsend):	0.58	0.26-1.30	0.03	0.001-8.27
HAI	0.94	0.87-1.07	2.24	0.30-5.85
CMI	0.94	0.82-1.08	0.27	0.003-2.54
<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	(signif. trend)	1.00	-
Public 100% free	55.81	3.31-940.59	5.24	0.87-10.21
Public with some co-payment	33.13	2.30-477.22	3.41	0.84-7.51
Other	-		0.87	0.21-1.32
None/don't know	41.35	1.81-939.96	3.14	0.41-8.51
Use of cervical cancer screening service	0.17	0.01-1.58	0.24	0.01-2.10
Number of preventive health care attentions (count)	0.52	0.22-1.20	0.87	0.14-3.26
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

**Table A11.23** Odds Ratio (OR) of presenting any Disability in the **IIP missing values by age groups**, with its 95% Confidence Intervals (CI), adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Variables	under 16 years old			Working age (16 to 65)			Elderly (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	1.25	1.04-	1.52	1.08	1.02-	1.18	1.16	1.04-	1.28
Sex (female=1)	0.45	0.09-	2.26	0.38	0.12-	0.98	0.43	0.09-	1.96
Marital status:									
Single	1.00	-		1.00	(no signif. trend)		1.00	-	
Married	-	-		0.24	0.08-	0.65	0.86	0.12-	6.03
Divorced	-	-		1.19	0.17-	8.16	2.84	0.17-	45.02
Widow	-	-		0.40	0.05-	3.32	0.78	0.07-	8.55
Ethnicity: any	0.46	0.05-	3.59	1.70	0.72-	4.01	0.20	0.03-	0.66
Zone: rural=1	0.47	0.04-	4.66	0.48	0.14-	1.66	1.02	0.26-	3.97
Area:									
Northern	1.00	-		1.00	-		1.00	(no signif. trend)	
Central	1.68	0.13-	21.40	0.49	0.13-	1.79	0.11	0.01-	0.83
Southern	0.62	0.06-	5.60	1.89	0.45-	7.90	0.51	0.07-	3.64
Number of household members	1.01	0.57-	1.75	1.15	0.84-	1.58	0.77	0.58-	1.16
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		1.71	1.01-	7.51	0.30	0.01-	0.96
Primary School	-	-		8.51	2.53-	22.44	0.22	0.01-	0.91
High School	-	-		2.36	1.35-	14.12	0.48	0.03-	0.94
Technical level	-	-		3.42	1.24-	19.38	-	-	
University level	1.00	-		1.00	(signif. trend)		1.00	(signif. trend)	

Household income:									
Quintile 1 (poorest)	1.93	0.17-	22.09	16.35	2.07-	29.93	1.34	0.21	8.74
Quintile 2	0.40	0.03-	4.23	4.18	0.12-	35.28	12.39	1.42-	17.62
Quintile 3	2.05	0.30-	14.02	4.53	0.28-	34.32	0.43	0.05-	3.45
Quintile 4	7.36	0.72-	74.41	5.40	0.77-	35.54	0.24	0.02-	3.08
Quintile 5 (wealthiest)	1.00	-		1.00	(no signif. trend)		1.00	(no signif. trend)	
Unemployed	-	-		0.71	0.14-	3.05	-	-	
Has a contract	-	-		0.71	0.06-	0.81	-	-	
Temporary work	-	-		0.30	0.03-	2.31	-	-	
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	0.33	0.04-	2.72	0.01	0.002-	1.28	0.49	0.03-	5.98
Unfit	0.14	0.02-	9.37	0.54	0.02-	4.62	0.25	0.06-	10.86
Sanitary Index (deficient=0)	1.15	0.09-	14.81	1.76	0.53-	5.44	6.79	0.06-	18.87
Overcrowded household (Townsend):	1.95	0.11-	31.84	0.04	0.003-	5.43	0.78	0.09-	6.61
HAI	-	-		9.81	0.70-	12.22	9.07	0.01-	46.31
CMI	0.13	0.01-	8.46	5.43	0.12-	12.42	2.47	0.51-	11.19



**Table A11.24** Odds Ratio (OR) of presenting any disability in the **International Immigrant population by age groups**, adjusted by socio-demographics. CASEN survey, 2006 [SAME TABLE IN CHAPTER 10, TABLE 10.4] (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.92	0.81-	1.05	1.06	1.02-	1.10	1.33	1.12-	1.56
Sex (female=1)	0.13	0.02-	0.78	0.61	0.20-	1.77	1.02	0.28-	3.62
Marital status:									
Single	-	-		1.00	-		1.00	(no signif. trend)	
Married	-	-		0.54	0.15-	1.85	19.44	1.44-	23.74
Divorced	-	-		1.79	0.28-	11.39	-	-	
Widow	-	-		1.19	0.14-	10.01	4.31	0.45	15.23
Ethnicity: any	0	-		0.49	0.06-	3.88	6.23	2.35-	13.43
Zone: rural=1	1.19	0.19-	7.26	1.02	0.32-	3.29	3.13	0.64-	15.13
Area:									
Northern	1.00	(signif. trend)		1.00	-		1.00	-	
Central	8.77	1.11-	16.88	0.40	0.09-	1.69	0.17	0.01-	1.82
Southern	3.08	1.99-	4.76	0.50	0.12-	2.07	2.98	0.41-	21.42
Number of household members	0.93	0.43-	1.76	0.99	0.79-	1.22	1.06	0.69-	1.62
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		2.64	0.26-	26.77	6.31	0.42-	92.53
Primary School	-	-		1.08	0.16-	7.23	9.50	1.15-	78.07
High School	-	-		1.08	0.20-	5.80	4.28	0.43-	41.23
Technical level	-	-		0	-		-	-	
University level	1.00	-		1.00	-		1.00	(no signif. trend)	
Household income:									
Quintile 1 (poorest)	-	-		3.10	0.56-	17.09	2.58	0.45-	14.61
Quintile 2	1.76	0.12-	25.42	0.23	0.01-	2.84	3.34	0.48-	39.54

Quintile 3	0.46	0.02-	7.65	1.44	0.16-	12.72	0.03	0.001-	0.74
Quintile 4	1.45	0.09-	21.25	2.42	0.28-	20.39	1.09	0.19-	9.96
Quintile 5 (wealthiest)	1.00	-		1.00	-		1.00	(no signif. trend)	
Has a contract	-	-		3.93	1.08-	15.45	-	-	
Temporary work	-	-		0.66	0.17-	2.45	-	-	
Low SES cluster	8.37	1.03-	16.79	3.16	1.09-	9.16	23.46	2.74-	200.31
Medium SES cluster	5.03	3.02-	8.32	1.24	0.44-	3.44	6.37	0.96-	42.10
High SES cluster	1.00	(signif. trend)		1.00	(no signif. trend)		1.00	(signif. trend)	
<b>MATERIAL DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	0.29	0.01-	6.07	0.33	0.01-	1.33	7.79	0.01-	15.35
Unfit	0	-		3.96	0.03-	9.66	3.97	0.01-	11.38
Sanitary Index (deficient=0)	28.34	0.79-	1.57	1.14	0.003-	3.35	0.06	0.03-	10.59
Overcrowded household (Townsend):	0.10	0.01-	7.16	0.30	0.004-	2.11	11.62	0.07-	18.88
HAI	-	-		8.00	0.002-	13.99	0.03	0.006-	1.32
CMI	0.001	0.0001-	13.98	0.01	0.0001-	1.23	4.65	0.07-	12.88

**Table A11.25** Odds Ratio (OR) of presenting each type of any disability in the **IIP missing values** with its 95% Confidence Intervals (CI), adjusted by socio-demographics, social position and material conditions. CASEN survey, 2006 (weighted sample size 108 599, respectively) (statistical significant values appear in grey shade in the table)

Variables	Visual		Hearing		Speaking		Physical		Cognitive		Psychiatric	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
<b>CAUSES OF DISABILITY:</b>												
Birth disability	1.00	-	1.00	-	1.00	-	1.00	(signif. trend)	1.00	(no signif. trend)	1.00	(no signif. trend)
Disease	1.99	0.27- 14.66	0.33	0.03- 3.19	0.80	0.05- 1.38	4.37	1.35- 53.33	0.01	0.001- 0.10	1.42	0.40- 20.13
Accident	0.99	0.90- 8.21	1.56	0.08- 28.58	-	-	1.84	1.09- 37.78	0.22	0.05- 5.50	2.20	0.04- 10.70
Other non stated	0.68	0.05- 9.28	4.65	0.33- 57.41	-	-	2.23	1.23- 39.58	0.16	0.01- 1.65	1.57	1.06- 14.86
<b>SOCIO-DEMOGRAPHICS:</b>												
Age	1.03	0.99- 1.07	1.07	1.02- 1.12	1.01	0.96- 1.07	1.05	1.03- 1.07	1.06	1.01- 1.12	1.07	1.03- 1.12
Sex (female=1)	0.87	0.34- 1.96	0.12	0.05- 0.59	1.37	0.23- 8.09	0.38	0.08- 1.63	0.71	0.14- 3.46	0.86	0.20- 3.61
Marital status:												
Single	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Married	6.88	0.84- 55.98	1.27	0.21- 7.38	0.11	0.07- 1.69	0.27	0.06- 1.24	-	-	0.40	0.06- 2.56
Divorced	2.82	0.24- 32.69	-	-	-	-	-	-	-	-	5.80	2.32- 14.3
Widow	3.70	0.19- 70.47	5.69	0.58- 51.21	0.24	0.07- 2.83	0.33	0.06- 1.72	-	-	-	-
Ethnicity: any	2.46	0.76- 7.92	0.14	0.01- 1.50	2.74	0.28- 26.46	2.04	0.24- 16.84	0.13	0.01- 0.91	-	-
Zone: rural=1	0.56	0.16- 1.85	0.14	0.02- 0.90	-	-	0.97	0.20- 4.55	0.35	0.01- 6.92	2.10	0.24- 17.86
Area:												
Northern	1.00	-	1.00	-	1.00	-	1.00	(signif. trend)	1.00	-	1.00	-
Central	0.60	0.07- 0.47	1.27	0.21- 7.38	0.19	0.01- 2.17	17.48	3.05- 91.52	10.41	0.70- 148.2	0.16	0.01- 1.84
Southern	0.89	0.09- 8.31	5.69	0.21- 14.85	0.78	0.12- 5.01	38.38	3.43- 429.1	0.48	0.02- 8.69	1.11	0.09- 13.20
Number of household members	0.73	0.42- 1.26	1.14	0.71- 1.85	0.78	0.42- 1.46	1.24	0.89- 1.74	1.69	1.44- 2.14	0.97	0.64- 1.49
<b>SOCIOECONOMIC DETERMINANTS:</b>												
Educational level:												

No education	3.75	0.17	82.51	-	-	3.25	1.09-	11.06	9.37	3.01-	29.21	-	-	6.26	1.15-	13.39		
Primary School	5.07	2.49	23.9	-	-	2.41	1.09-	15.92	6.40	2.10-	18.88	-	-	5.15	1.58-	14.55		
High School	4.71	1.04-	27.7	-	-	7.62	1.62-	19.41	1.19	1.04-	12.78	-	-	7.80	1.23-	14.93		
Technical level	9.46	0.41-	24.5	-	-	-	-		1.13	1.03-	12.60	-	-	4.65	1.38-	15.66		
University level	1.00	(signif. trend)		1.00	-	1.00	(signif. trend)		1.00	(signif. trend)		1.00	-	1.00	(signif. trend)			
Household income:																		
Quintile 1 (poorest)	0.71	0.08-	8.58	-	-	-	-		5.14	1.03-	17.81	40.17	3.38-	46.2	-	-		
Quintile 2	0.12	0.01-	1.12	-	-	3.17	0.29-	33.80	5.06	1.08-	13.30	3.62	0.20-	63.23	-	-		
Quintile 3	0.31	0.04-	2.21	-	-	1.21	0.05-	25.23	3.07	1.02-	13.57	25.03	1.20-	53.1	-	-		
Quintile 4	0.32	0.03-	3.21	-	-	1.88	0.12-	29.16	1.64	1.08-	13.90	72.31	5.37-	92.9	-	-		
Quintile 5 (wealthiest)	1.00	-		1.00	-	1.00	-		1.00	(signif. trend)		1.00	(signif. trend)		1.00	-		
Has a contract	0.06	0.001	0.24	-	-	-	-		-	-		-	-		-	-		
Temporary work	0.75	0.20-	2.80	-	-	-	-		-	-		-	-		-	-		
<b>MATERIAL DETERMINANTS:</b>																		
Quality of the household:																		
Acceptable	1.00	-		1.00	-	1.00	-		1.00	-		1.00	(signif. trend)		1.00	-		
Sub-standard	2.154	0.30-	12.20	-	-	-	-		10.69	0.20-	19.1	0.33	0.08-	0.93	-	-		
Unfit	2.29	0.10-	12.70	-	-	-	-		23.53	0.60-	19.19	0.13	0.02-	0.95	-	-		
Sanitary Index (deficient=0)	0.60	0.001	1.38	0.50	0.01-	2.61	-	-	0.10	0.02-	10.56	1.34	1.02-	7.00	0.30	0.02-	3.52	
Overcrowded household (Townsend):	2.12	0.02-	13.51	1.66	0.01-	11.43	0.01	0.001-	6.66	7.17	0.24-	22.53	0.48	0.01-	0.94	9.96	0.60-	18.68
HAI	4.68	0.20-	14.13	1.12	0.30-	4.16	2.07	0.30-	11.19	0.53	0.04-	6.34	-	-	0.80	0.06-	11.26	
CMI	4.03	0.19-	19.64	1.43	0.23-	8.75	0.32	0.02-	4.24	2.51	0.57-	11.20	-	-	1.59	0.02-	11.62	

**Table A11.26** Odds Ratio (OR) of presenting each type of Disability in the **International Immigrant Population** with its 95% Confidence Intervals (CI), adjusted by socio-demographics, social position and material conditions. CASEN survey, 2006 [*SAME TABLE APPEARS IN CHAPTER 10, TABLE 10.6*] (weighted sample size 154 431) (statistical significant values appear in grey shade in the table)

Variables	Visual		Hearing		Speaking		Physical		Learning		Psychiatric	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
<b>CAUSES OF DISABILITY:</b>												
Birth disability	1.00	-	1.00	-	1.00	-	1.00	-	1.00	(signif. trend)	1.00	-
Disease	0.84	0.05- 13.9	3.00	0.07- 11.3	3.00	0.07- 11.30	2.18	0.26- 18.3	46.62	2.59- 83.60	0.05	0.005 6.34
Accident	3.76	0.18- 76.6	0	-	0	-	1.48	0.08- 25.1	3.52	1.56- 79.11	0	-
Other non stated	0.70	0.02- 23.5	0	-	0	-	0	-			0	-
<b>DEMOGRAPHICS:</b>												
Age	1.01	0.99- 1.04	1.01	0.97- 1.06	1.02	0.98- 1.07	1.04	0.99- 1.10	0.93	0.82- 1.06	1.06	1.01- 1.11
Sex (female=1)	1.05	0.22- 4.87	1.16	0.13- 9.69	0	-	0.86	0.18- 3.99	0.25	0.04- 1.39	0.72	0.04- 12.45
Marital status:												
Single	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Married	0.96	0.08- 1.37	3.12	0.22- 43.3	0	-	0.38	0.10- 1.43	0	-	0	-
Divorced	4.14	0.46- 36.57	16.8	0.62- 45.2	0	-	0.17	0.01- 1.70	0	-	0	-
Widow	0	-	2.71	0.04- 15.9	0	-	0.16	0.008 3.35	0	-	0	-
Ethnicity: any	0.34	0.08- 1.37	1.03	0.06- 16.6	0	-	1.17	0.22- 6.18	0.19	0.01- 1.93	0	-
Zone: rural=1	0.96	0.46- 36.57	1.52	0.43- 5.32	0	-	3.93	1.31- 11.7	8.50	1.54- 47.2	3.19	0.08- 36.92
Area:												
Northern	1.00	(signif. trend)	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
Central	4.06	1.10- 14.95	0.26	0.01- 4.65	0	-	1.40	0.29- 6.70	0	-	0	-
Southern	9.89	2.35- 41.66	0.14	0.08- 2.40	0	-	1.20	0.18- 7.73	0	-	0	-
Number of household members	1.21	1.01- 1.44	0.53	0.29- 0.96	0.75	0.63- 0.90	1.20	0.90- 1.60	1.16	0.81- 1.65	0.70	0.53- 0.92

**MIGRATION STATUS :**

Years living in the country:												
Less than a year	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
1 to 5 years	0.16	0.01- 1.84	3.97	0.41- 37.6	-	-	-	-	0.21	0.01- 2.52	-	-
6 to 10 years	3.07	0.43- 21.65	0	-	-	-	0.41	0.05- 2.94	8.58	0.51- 14.20	-	-
11 to 15 years	0	-	0.43	0.03- 6.27	-	-	0.02	0.002- 0.28	1.01	0.01- 9.83	-	-
16 to 20 years	0.72	0.06- 7.72	0	-	-	-	0.20	0.02 2.00	1.43	0.08- 23.92	-	-
21 or more years	1.47	0.22- 9.71	8.61	0.38- 19.1	-	-	0.32	0.04- 2.45	1.25	0.04- 34.20	-	-
Country of origin:												
Peru	0	-	1.70	0.29- 10.0	-	-	13.98	2.53- 85.32	-	-	5.38	0.96- 44.95
Argentina	0.61	0.14- 2.57	0.08	0.008- 0.08	-	-	9.55	1.29- 70.74	-	-	-	-
Bolivia	0.22	0.05- 0.99	0.63	0.07- 5.38	-	-	4.80	0.75- 31.09	-	-	-	-
Ecuador	0.92	0.07- 11.12	1.78	0.10- 31.3	-	-	-	-	-	-	46.35	5.65- 78.90

**Table A11.27** Prevalence of any health care received from a chronic condition or cancer in the past year, a comparison between the IIP and the missing values in Chile, CASEN survey 2006 (weighted sample size 154 431 and 108 599, respectively)

Dimensions	International immigrants living in Chile		Those who preferred not to report their migration status	
	%	95% CI	%	95% CI
Any care <sup>a</sup>	3.90	2.68-5.63	4.26	2.84-6.34

<sup>a</sup>p<0.0001 when comparing the IIP versus the MS-MV

**Table A11.28** Adjusted Odds Ratio (OR) (by demographic variables) of having received any care for a **chronic condition or cancer in the past year** in Chile, a comparison between the International Immigrant Population (IIP) and the IIP missing values, CASEN, 2006 (weighted sample size 154 431 and 108 599, respectively) (statistical significant values appear in grey shade in the table)

Social determinants	The International Immigrants		Those who preferred not to report their MS	
	OR	95% CI	OR	95% CI
<b>DEMOGRAPHICS:</b>				
Age <sup>b</sup>	1.05	1.02-1.08	1.02	1.01-1.04
Sex (female=1) <sup>b</sup>	2.78	1.26-6.71	1.05	0.46-2.36
Marital status:				
Single	1.00	-	1.00	-
Married <sup>b</sup>	3.76	0.25-54.76	1.21	0.46-3.13
Divorced <sup>b</sup>	5.20	0.15-17.21	1.15	0.20-6.43
Widow <sup>b</sup>	-	-	1.51	0.35-7.22
Ethnicity: any	0.08	0.008-0.07	1.10	0.19-6.20
Zone:				
Rural=1	0.33	0.04-26.28	0.65	0.26-1.57
Area:				
Northern	1.00	-	1.00	-
Central	0.57	0.21-1.52	1.17	0.31-4.38
Southern	0.93	0.21-1.52	2.55	0.69-9.35
Mean Number of household members:	1.23	1.06-1.43	0.85	0.68-1.05
<b>CLASSI C SOCIOECONOMIC DETERMINANTS:</b>				
Educational level:				
No education <sup>b</sup>	0.03	0.001-0.89	2.35	0.21-25.42
Primary School <sup>b</sup>	0.10	0.05-1.90	7.92	0.96-89.94
High School <sup>b</sup>	0.78	0.23-2.62	2.04	0.21-19.65
Technical level <sup>b</sup>	0.48	0.08-2.85	1.37	0.13-14.03
University level	1.00	(no signif. trend)	1.00	-



Household income, per capita: <sup>b</sup>				
Quintile 1 (poorest) <sup>b</sup>	2.10	0.50-7.40	1.17	0.35-3.90
Quintile 2 <sup>b</sup>	1.98	0.41-9.48	0.74	0.16-3.32
Quintile 3 <sup>b</sup>	2.48	0.48-12.68	0.84	0.18-3.84
Quintile 4 <sup>b</sup>	4.06	1.53-10.73	0.80	0.20-3.22
Quintile 5 (wealthiest)	1.00	(no signif. trend)	1.00	-
Unemployed:	0.45	0.04-4.78	1.44	0.25-8.21
Has a contract <sup>b</sup>	1.39	0.18-10.69	1.78	0.20-15.81
Type of contract: Temporary	1.86	0.53-6.50	2.41	0.36-16.16
Workday dedication: Full time <sup>b</sup>	6.90	0.59-80.34	0.19	0.02-1.46
<b>ACCESS TO HEALTH CARE:</b>				
Type of provision:				
Private	1.00	-	1.00	-
Public 100% free <sup>b</sup>	-	-	2.32	0.87-4.12
Public with some co-payment <sup>b</sup>	0.14	0.01-10.40	0.98	0.41-2.14
None/don't know <sup>b</sup>	0.06	0.008-4.57	0.87	0.51-3.01
Other	-	-	-	-
Use of cervical cancer screening service	-	-	-	-
Number of preventive health care attentions received, categories:				
<b>MATERIAL DETERMINANTS:</b>				
Quality of the household Index:				
Acceptable	1.00	-	1.00	-
Sub-standard <sup>b</sup>	0.78	0.15-2.01	11.27	0.21-38.38
Unfit <sup>b</sup>	0.63	0.06-6.01	-	-
Sanitary Index (deficient=0)	3.17	0.07-12.66	0.18	0.06-5.71
Overcrowded household (Townsend): <sup>b</sup>	0.55	0.02-12.54	5.29	0.60-14.12
HAI	0.76	0.51-1.12	0.31	0.01-8.07
CMI	1.14	1.04-1.30	4.03	0.06-14.21
<b>MULTIPLICATIVE INTERACTION EFFECTS:</b> no interactions found				

**Table A11.29** Odds Ratio (OR) of presenting any chronic disease or cancer in the **IIP missing values by age groups**, adjusted by socio-demographics. CASEN survey, 2006 (weighted sample size 108 599) (statistical significant values appear in grey shade in the table)

Variables	Under 16 years old			Working age (16 to 65)			Elderly (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.86	0.73-	1.72	1.06	1.01-	1.10	0.96	0.86-	1.12
Sex (female=1)	0.49	0.08-	2.32	1.79	0.54-	5.84	0.64	0.06-	6.71
Marital status:									
Single	1.00	-		1.00	-		1.00	-	
Married	-	-		0.97	0.17-	5.47	11.49	0.71-	72.2
Divorced	-	-		1.51	0.16-	14.25	0.12	0.01-	64.72
Widow	-	-		0.26	0.01-	5.45	13.71	0.60-	30.17
Ethnicity: any	-	-		0.05	0.006	0.45	28.68	1.23-	59.21
Zone: rural=1	0.42	0.06-	2.74	1.07	0.33-	3.45	0.20	0.02-	2.06
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	2.29	0.29-	37.01	0.51	0.06-	4.34	1.65	0.16-	16.81
Southern	2.68	0.19-	36.53	1.44	0.18-	11.03	6.85	0.62-	75.38
Number of household members	0.85	0.52-	1.41	0.93	0.73-	1.17	0.87	0.49-	1.54
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		0.32	0.01-	8.24	3.65	1.60-	12.20
Primary School	-	-		0.87	0.07-	8.43	8.81	1.99-	13.91
High School	-	-		0.62	0.05-	6.91	2.33	1.06-	13.23
Technical level	-	-		1.27	0.09-	17.27	-	-	
University level	1.00	-		1.00	-		1.00	(signif. trend)	

Household income:									
Quintile 1 (poorest)	0.16	0.01-	1.69	3.49	0.56-	21.50	1.25	0.95-	15.14
Quintile 2	0.20	0.01-	2.44	4.99	0.67-	36.79	0.90	0.07-	11.48
Quintile 3	0.03	0.004	0.23	4.70	0.74-	29.65	0.73	0.01-	11.42
Quintile 4	-	-		0.80	0.11-	2.54	0.33	0.02-	4.26
Quintile 5 (wealthiest)	1.00	(no signif. trend)		1.00	-		1.00	-	
Has a contract	-	-		1.59	0.17-	14.16	-	-	
Temporary work	-	-		2.55	0.58-	16.94	-	-	
<b>MATERIAL SOCIOECONOMIC DETERMINANTS:</b>									
Quality of the household:									
Acceptable	1.00	-		1.00	-		1.00	-	
Sub-standard	-	-		-	-		-	-	
Unfit	-	-		-	-		-	-	
Sanitary Index (deficient=0)	1.49	0.03-	9.64	0.18	0.01-	7.63	0.30	0.03-	2.37
Overcrowded household (Townsend):	0.18	0.04-	8.94	4.17	0.41-	42.01	4.98	0.61-	14.04
HAI	-	-		0.10	0.04-	5.92	0.78	0.02-	20.47
CMI	0.80	0.08-	2.31	8.35	0.81-	18.40	1.60	0.05-	14.74

**Table A11.30** Odds Ratio (OR) of presenting any chronic disease or cancer in the **International Immigrant Population by age groups**, adjusted by socio-demographics. CASEN survey, 2006 [*THE SAME TABLE APPEARS IN CHAPTER 10, TABLE 10.12*] (weighted sample size 154 431)

Variables	Immigrants under 16 years old			Working age immigrants (16 to 65)			Elderly immigrants (over 65)		
	OR	95% CI		OR	95% CI		OR	95% CI	
<b>SOCIO-DEMOGRAPHICS:</b>									
Age	0.72	0.59-	0.88	1.09	1.02-	1.10	0.99	0.90-	1.98
Sex (female=1)	-	-		4.35	1.39-	8.65	0.16	0.02-	2.12
Marital status:									
Single	1.00	-		1.00	-		1.00	-	
Married	-	-		0.54	0.15-	1.87	-	-	
Divorced	-	-		1.79	0.28-	11.89	-	-	
Widow	-	-		1.19	0.14-	10.01	-	-	
Ethnicity: any	-	-		1.03	0.87	2.54	0.02	0.01-	0.22
Zone: Rural=1	-	-		1.03	0.32-	3.76	2.45	0.47-	12.69
Area:									
Northern	1.00	-		1.00	-		1.00	-	
Central	-	-		0.40	0.19-	1.56	0.25	0.07-	2.45
Southern	-	-		0.50	0.12	4.76	0.87	0.18-	5.73
Number of household members	0.47	0.23-	0.97	0.99	0.79	1.32	1.87	1.14-	7.65
<b>SOCIOECONOMIC DETERMINANTS:</b>									
Educational level:									
No education	-	-		-	-		1.79	0.78-	4.43
Primary School	-	-		0.18	0.01-	1.23	-	-	
High School	-	-		0.17	0.03-	1.32	1.36	0.15-	3.21
Technical level	-	-		0.38	0.02-	2.54	0.67	0.10-	4.46
University level	1.00	-		1.00	-		1.00	-	
<b>MIGRATION STATUS</b>									
Years living in the country:									

Less than a year	1.00	-	1.00	-		1.00	-	
1 to 5 years	-	-	0.49	0.15-	2.11	-	-	
6 to 10 years	-	-	1.26	0.39-	4.32	1.23	0.98-	5.64
11 to 15 years	-	-	1.65	0.33-	8.65	3.54	0.03-	12.43
16 to 20 years	-	-	0.49	0.08-	8.54	5.65	0.09-	13.87
21 or more years	-	-	0.29	0.05	4.32	7.86	0.12-	14.54
Country of origin:								
Peru	-	-	0.62	0.20-	1.91	0.06	0.02-	0.97
Argentina	-	-	1.10	0.34-	3.21	2.85	0.67-	7.65
Bolivia	-	-	0.89	0.12-	3.76	0.30	0.03-	0.93
Ecuador	-	-	0.62	0.39-	7.98	-	-	

**APPENDIX 12**

**TABLES AND FURTHER DISCUSSION  
FROM CHAPTER 12**

**12.1 OVERVIEW OF KEY RESULTS FROM THIS STUDY: A POWERPOINT PRESENTATION (Presented at the PILAS conference 2011, 27<sup>th</sup> ‘ 29<sup>th</sup> June 2011, University of Cambridge)**

POSTGRADUATES IN LATIN AMERICAN STUDIES ANNUAL CONFERENCE 2011


THE UNIVERSITY of York

Facultad de Medicina  
Clínica Alemana - Universidad del Desarrollo

“Legacies of the Past, Challenges of the Present:  
Inequality and Marginality in Latin America”

## Living Conditions and Health Status of International Immigrants in Chile

Baltica Cabieses, Helena Tunstall and Kate Pickett



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*BEFORE WE START...*

An explanation of the framework and key concepts used in this study

1. Social epidemiology
2. Social Determinants of Health (SDH)
3. Health inequalities
4. International immigrant population

3

*BEFORE WE START...*

An explanation of the framework and key concepts used in this study

1. Social epidemiology
2. Social Determinants of Health (SDH)
3. Health inequalities
4. International immigrant population

Sub discipline of epidemiology that studies the distribution of health and diseases in societies as well as their determinants

“Study of the role of social factors in the aetiology of the disease”

*(Krieger, 2001, Tajer, 2003)*

4

*BEFORE WE START...*

An explanation of the framework and key concepts used in this study

1. Social epidemiology
2. Social Determinants of Health (SDH)
3. Health inequalities
4. International immigrant population

Social conditions in which people live and work and that affect their health

*(Krieger, 2001, Tajer, 2003)*  
*(Marmot & Wilkinson 1999, Tarlov 1996)*

5



*BEFORE WE START...*

An explanation of the framework and key concepts used in this study

1. Social epidemiology
2. Social Determinants of Health (SDH)
3. Health inequalities
4. International immigrant population

The systematic, structural differences in health status between and within social groups (e.g. socioeconomic status, gender, ethnicity, and others)

*(Krieger, 2001, Tajer, 2003)*  
*(Marmot & Wilkinson 1999, Tarlov 1996)*  
*(Marmot & Wilkinson, 1999, Marmot 1999 & 2010)*

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*BEFORE WE START...*

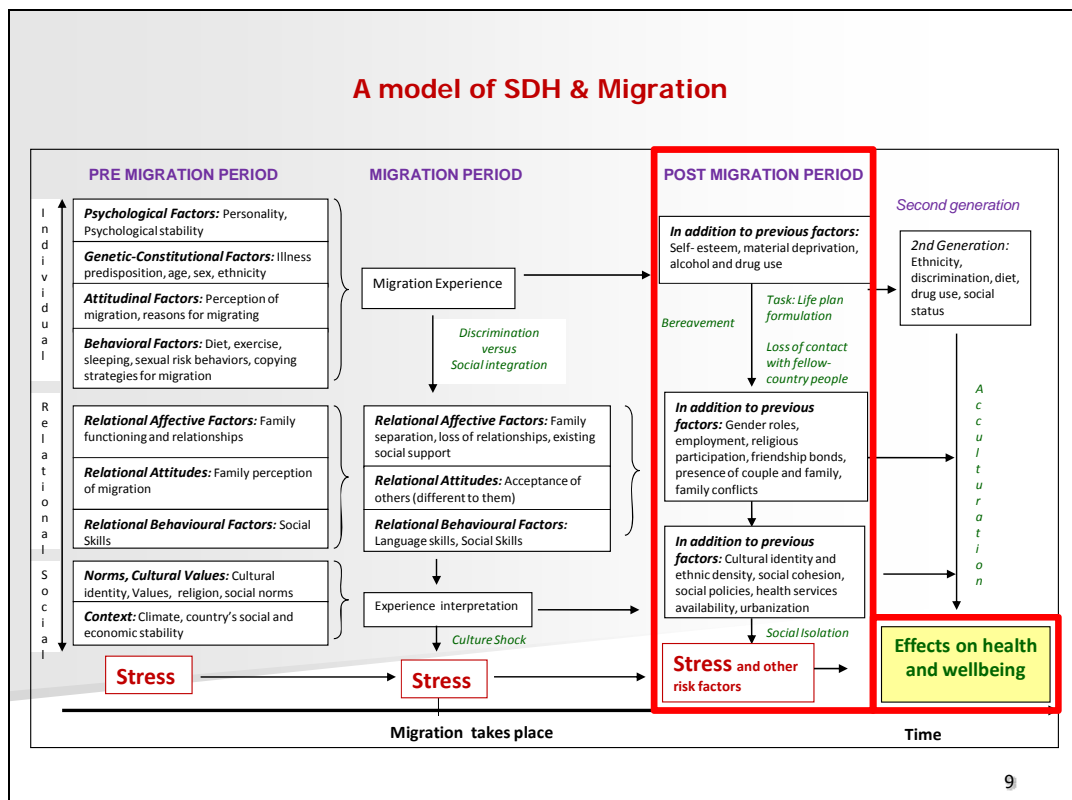
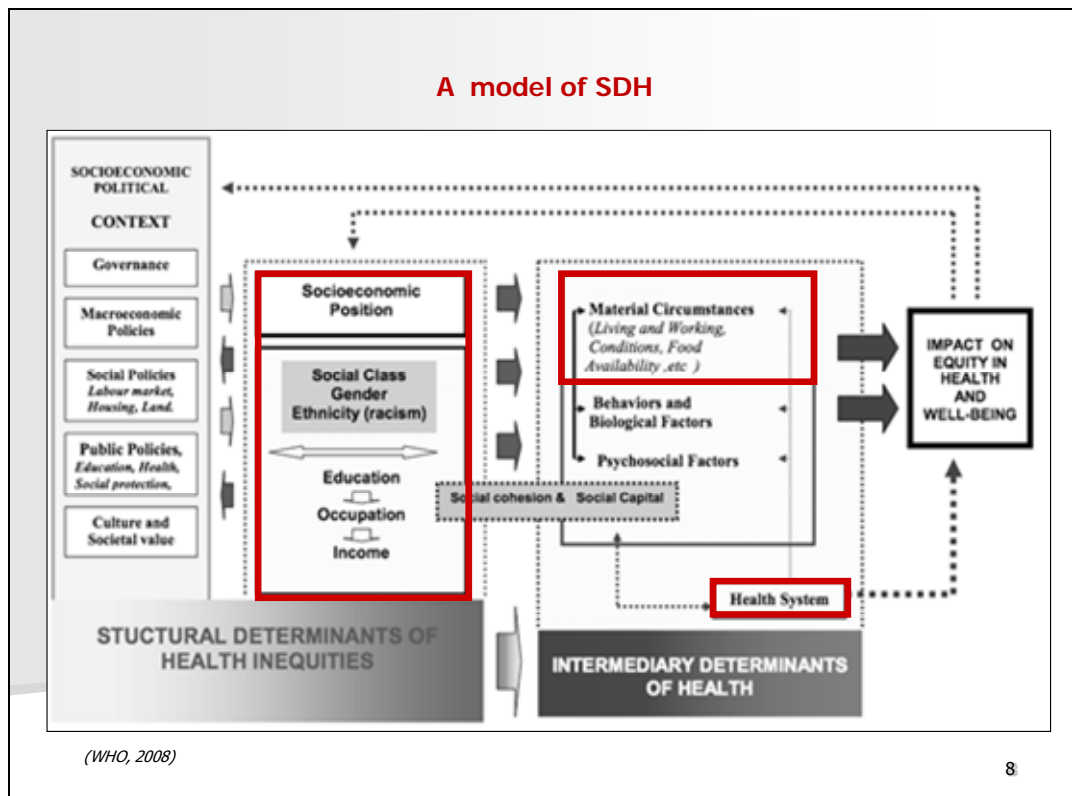
An explanation of the framework and key concepts used in this study

1. Social epidemiology
2. Social Determinants of Health (SDH)
3. Health inequalities
4. International immigrant population (IIP)

People living in Chile in 2006 who were born in a different country

*(Krieger, 2001, Tajer, 2003)*  
*(Marmot & Wilkinson 1999, Tarlov 1996)*  
*(Marmot & Wilkinson, 1999, Marmot 1999 & 2010)*  
*(UN, 2003)*

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**International immigration to Chile**  
**What is already known?**

- Chile is a middle-income with stable economic growth in recent decades
- It has experienced a progressive improvement in the health status of its population, but not all socio-economic groups have benefited to the same degree
- Around **1.6-1.8%** Chilean population are international immigrants, mostly from other Latin American countries
- Previous qualitative research has described the poor living conditions and urgent health needs among some immigrants in Chile

*(Martínez 2003, Stefoni 2005, Amador, 2010, IOM & Chilean Ministry of Health 2008a-b, Nunez-Carrasco, 2008)*



**RESEARCH QUESTIONS OF MY STUDY**

**Overarching research question**

What are the living conditions and health status of the international immigrant population in Chile and how do they compare to the Chilean-born population?

**Specific research questions**

1. What are the **demographic characteristics** of international immigrants in Chile and how do they compare to the Chilean-born?
2. What are the **socioeconomic conditions** of this group and how do they compare to the Chilean-born?
3. Do immigrants report **having access to and using the Chilean healthcare system** and how does this compare to the Chilean-born?
4. What is the **health status** (recent events and chronic conditions) of international immigrants in Chile and how does it compare to the Chilean-born population?
5. How do the key findings from this research contribute to the current knowledge of immigrants in Chile and what are their potential **policy implications** in the country and Latin America?

**THE DATA:**  
*A NATIONAL REPRESENTATIVE SURVEY CONDUCTED IN CHILE IN 2006*

Cross-sectional secondary analysis of  
 The CASEN survey (CAracterización Socio-Económica Nacional)

- National population based survey carried out by the Chilean Ministry of Planning since 1987
- The 2006 version included questions on migration status for the first time
- Sample size: **268,873 participants from 73,720 households:**
  - 1877 of them reported being immigrants (**1% total**)
  - 1455 preferred not to answer the question on migration status (0.7% total)

**RESEARCH QUESTION 1:**  
*Demographic characteristics*

Most of immigrants come from **Peru and Argentina**

**Years living in the country:**

- A third of immigrants have stayed for less than a year in Chile
- A third have stayed >10 years

Migration-related factors*	%	95%CI
Years living in Chile:	-	-
Less than a year	32.03	27.32-37.11
1 to 5 years	18.37	14.78-22.61
6 to 10 years	17.56	14.45-21.18
11 to 15 years	7.80	5.46-11.03
16 to 20 years	8.32	6.29-10.93
21 or more years	15.92	13.14-19.16
Country of origin:	-	-
Peru	27.81	23.38-32.72
Argentina	26.13	22.31-30.35
Bolivia	5.86	3.98-8.56
Ecuador	5.01	3.12-7.92
Other countries	35.19	30.75-40.61

\*weighted descriptive statistics



Map source: [http://www.avis.com/images/global/en/maps/latinAmericaMap.gif]

**RESEARCH QUESTION 1:**  
*Demographic characteristics*

Compared to the Chilean-born, international immigrants living in Chile are more likely to be at **working age (16-65 years old), married, and to belong to the Aymara ethnic group**

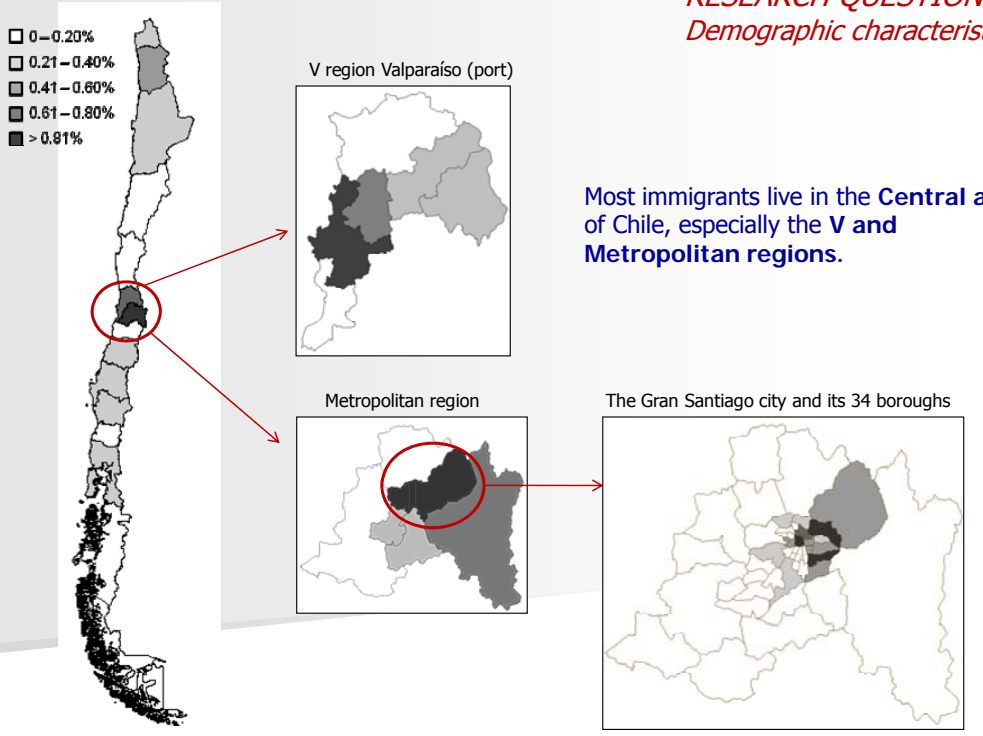
Demographic SDH*	Chilean-born		International immigrants	
	% or mean	95% CI	% or mean	95% CI
Sex (male)	48.66	48.40-48.94	45.21	41.74-48.72
Mean age	X=32.97	32.81-33.12	X=33.41	31.81-35.00
Age categories:				
<16	25.27	24.98-25.55	13.60	11.29-16.28
16-65	66.41	66.12-66.70	79.08	75.92-81.93
Over 65	8.32	8.13-8.52	7.32	5.33-9.97
Marital status:				
Single	50.57	50.31-50.84	45.81	42.06-49.62
Married or cohabitant couple	40.76	40.46-41.06	45.49	41.66-49.36
Annulled, separated or divorced	4.56	4.42-4.71	4.21	3.06-5.77
Widow	4.07	3.95-4.19	4.49	2.89-6.91
Minority ethnic group: any	6.55	6.52-6.80	5.57	3.79-8.10
Type of minority ethnic group:				
Aymara	0.52	0.44-0.61	2.33	1.48-3.63
Atacameño	0.18	0.14-0.24	0.20	0.004-0.93
Mapuche	5.71	5.48-5.95	2.96	1.59-5.46
Others	0.14	0.10-0.20	0.008	0.001-0.55

\*weighted descriptive statistics

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**RESEARCH QUESTION 1:**  
*Demographic characteristics*

Most immigrants live in the **Central area of Chile, especially the V and Metropolitan regions.**



**RESEARCH QUESTION 3:  
Access to and use of healthcare**

A little bit of context of the Chilean healthcare system...

Compared to the Chilean-born, international immigrants living in Chile are **more likely** to report **no healthcare provision** entitlement or **other not stated** health insurance. They are **less likely** to have access to the **public healthcare system**, both free and with co-payment

**BUT** no significant differences in the use of healthcare services

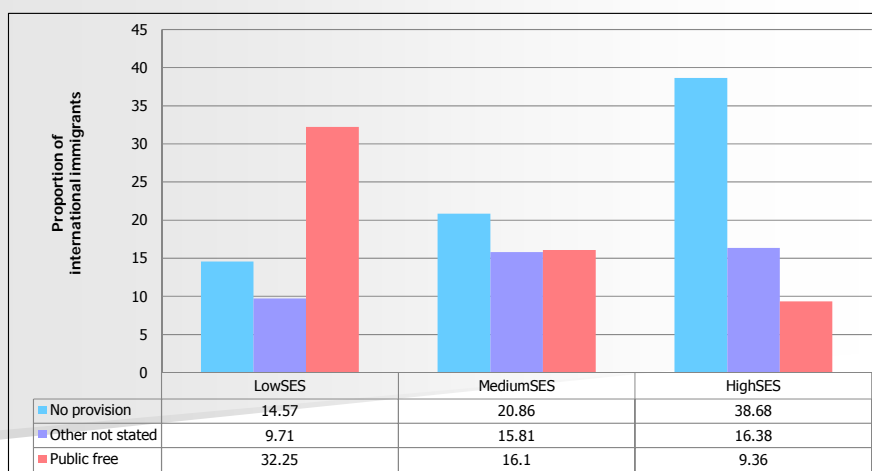
Access to and use of healthcare*	Chilean-born population		International immigrants	
	% or mean	95% CI	% or mean	95% CI
Type of provision:				
None or don't know	15.37	14.90-15.86	28.10	23.86-32.77
Public 100% free	29.39	28.90-29.89	15.27	12.65-18.33
Public with some co-payment	47.46	46.89-48.03	39.09	34.73-43.63
Private	2.70	2.50-2.91	1.97	0.85-4.48
Other	5.08	4.86-5.31	15.57	12.66-19.01
Use of cervical cancer screening programme ≥ 3 years ago	48.50	47.95-49.04	52.34	45.80-58.81
Use of mental care past 3 months	14.37	11.80-17.38	16.70	16.38-17.02
Use of dental care past 3 months	8.81	6.96-11.09	7.51	7.29-7.74
Use of specialist care past 3 months	9.85	7.54-12.77	9.11	8.88-9.35

\*weighted descriptive statistics

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**RESEARCH QUESTION 3:  
Access to and use of healthcare**

Clear gradients of access to **healthcare provision types** by SES cluster among immigrants in Chile, but some of them different to what might be expected:



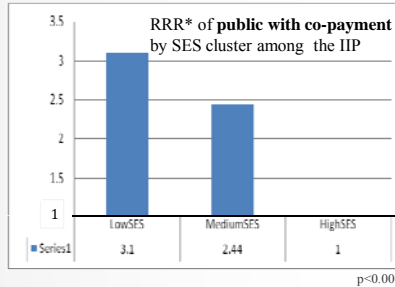
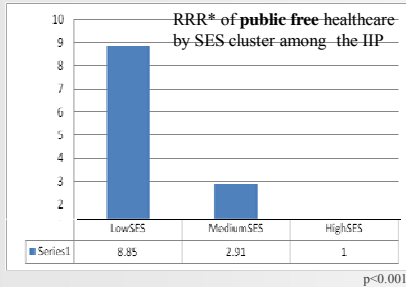
\*weighted descriptive statistics

\*Public with co-payment showed no gradient by SES cluster

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**RESEARCH QUESTION 3:  
Access to and use of healthcare**

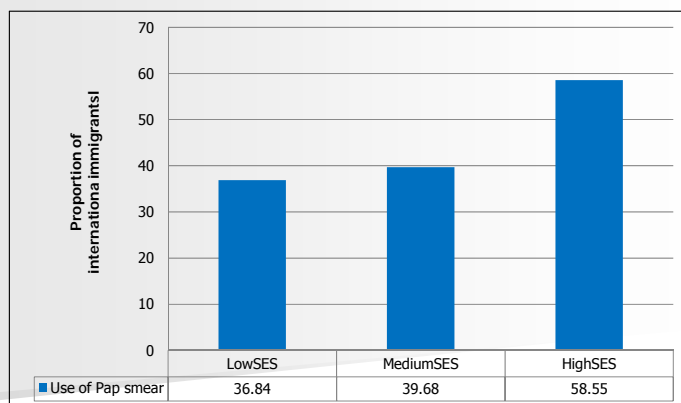
What factors are associated with the type of healthcare provision immigrants have access to while living in Chile?



\*Relative Risk Ratio from weighted multinomial regression, *no healthcare provision as the baseline category*  
 \*Model adjusted by sex, urban/rural, age, ethnicity and country of origin; Adjusted Pseudo-R2 15.19%, AIC 4442.5  
 \*Private and other not stated provision type showed no significant association with SES cluster

**RESEARCH QUESTION 3:  
Access to and use of healthcare**

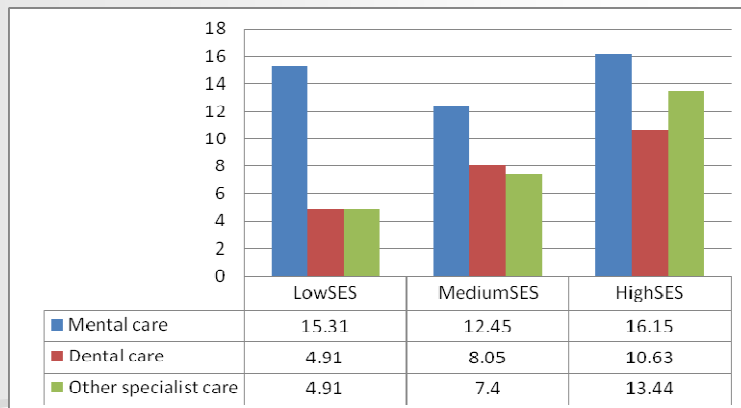
With regards to use of healthcare, there is a clear gradient of use of universal/ free Pap smear programme by SES cluster:



\*weighted descriptive statistics

**RESEARCH QUESTION 3:  
Access to and use of healthcare**

With regards to use of healthcare, there is a clear gradient of use of **dental care and other specialist care** by SES cluster, but not mental care:



*\*weighted descriptive statistics*

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**RESEARCH QUESTION 4:  
Recent health events**

Three health events in the past 30 days ("recent") were included in the analysis:

An apparent **"healthy migrant effect"** is observed in the total IIP compared to the Chilean-born for any health problem or accident and the number of emergency attentions

However, this effect disappears when adjusting by SES cluster

Recent health events (in the past 30 days)*	Low SES % (95%CI)	Medium SES % (95%CI)	High SES % (95%CI)	Total Immigrants % (95%CI)	Chilean-born population % (95%CI)
Any health problem or accident last month	8.18 (4.49-14.44)	12.69 (9.58-16.61)	9.36 (6.40-13.48)	10.76 (8.67-13.29)	15.76 (15.45-16.08)
Number of medical attentions	1.86 (0.96-2.76)	2.35 (1.73-2.96)	2.25 (1.55-2.95)	2.24 (1.81-2.66)	2.11 (2.06-2.15)
Number of emergency attentions	1.44 (1.04-1.84)	1.14 (0.94-1.33)	1.04 (0.97-1.11)	1.13 (1.02-1.25)	1.62 (1.58-1.66)

*\*weighted descriptive statistics*

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**RESEARCH QUESTION 4:  
Recent health events**

Multivariable analysis showed that:

**Age** was the most significant variable associated with any health problem or accident (OR<sup>ψ</sup> 1.02) and the number of medical attentions (IRR\* 1.02, p<0.001)



*The older the higher the need of medical care...*

**Type of healthcare provision** was the most significant variable associated with the number of emergency attentions, mostly explained by the low use of this service by immigrants with other not stated health insurance (IRR\* 0.30, Adjusted Wald test p<0.001)



*Low use of emergency services...  
But there is universal emergency care in the country, irrespective of legal status and health insurance...*

<sup>ψ</sup> Odds Ratio from adjusted weighted logistic regression,

<sup>ψ</sup> Pseudo-R2 3%, Archer & Lemeshow GOF test p<0.001

\*Incidence Rate Ratio from weighted zero-inflated negative binomial regression

\*Models adjusted by sex, urban/rural, ethnicity, SES, material conditions and healthcare provision type, Vuong GOF tests p<0.001

**RESEARCH QUESTION 4:  
Chronic health conditions**

Two chronic conditions included in the analysis:

An apparent **“healthy migrant effect”** is observed in the total IIP compared to the Chilean-born for any disability any chronic condition or cancer in the past year

Again, this apparent effect disappears among immigrants in the Low SES

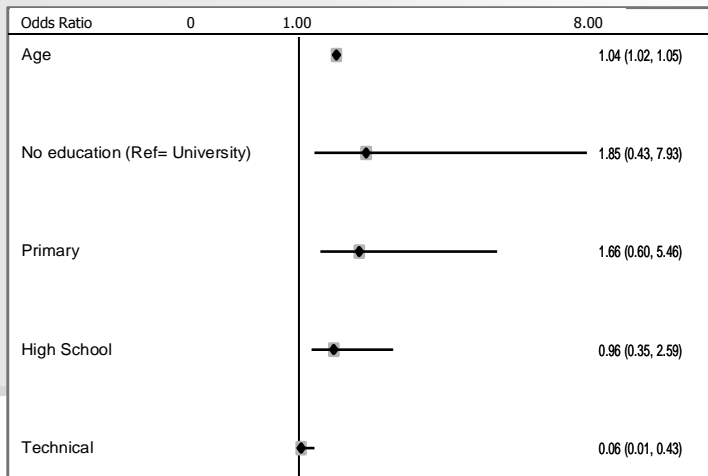
Chronic conditions (in the past year)*	Low SES % (95%CI)	Medium SES % (95%CI)	High SES % (95%CI)	Total Immigrants % (95%CI)	Chilean-born population % (95%CI)
Any disability	5.62 [3.21-9.66]	4.13 [2.68-6.33]	2.45 [1.11-5.33]	3.55 [2.49-5.02]	6.93 [6.74-7.13]
Any chronic condition or cancer (excluding disability)	5.30 [2.22-12.13]	3.35 [1.73-6.38]	4.13 [2.43-6.93]	3.90 [2.68-5.63]	5.85 [5.68-6.02]

\*weighted descriptive statistics

**RESEARCH QUESTION 4:  
Chronic health conditions**

From the different dimensions of SES included in this study, **education level and age** remained significantly associated with **any disability**:

**Forest plot: The OR\* of having any disability among immigrants**

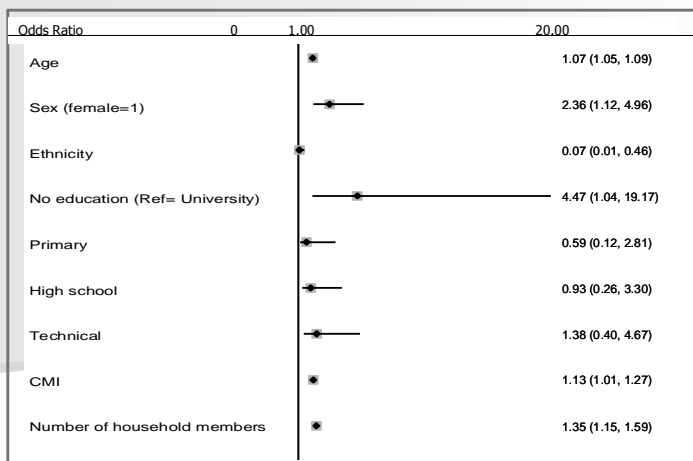


*\*Odds Ratios from weighted logistic regression  
\*Model adjusted by sex, ethnicity, income, occupational status and material living standards  
\*Adjusted Pseudo-R2 12.95%;  
Archer & Lemeshow GOF test p<0.01*

**RESEARCH QUESTION 4:  
Chronic health conditions**

The chance of presenting **any chronic condition or cancer** among the international immigrants is associated with **age, sex, zone, ethnicity, educational level, combined material index and not living alone in the household**:

**Forest plot: The OR\* of having any chronic condition/cancer among immigrants**



*\*Odds Ratios from weighted logistic regression  
\*Model adjusted by sex, ethnicity, income, occupational status and material living standards  
\*Adjusted Pseudo-R2 25.28%;  
Archer & Lemeshow GOF test p<0.01*

**RESEARCH QUESTION 5:  
What does study add & policy implications?**

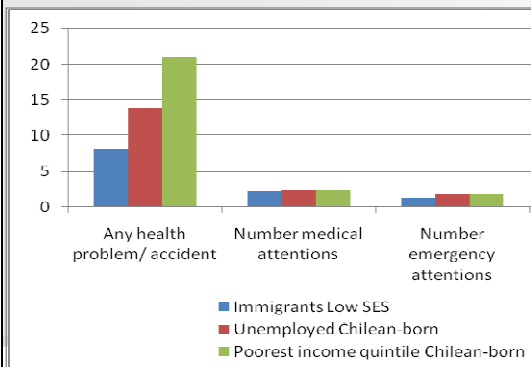
1. Overall, immigrants to Chile are a heterogeneous group with wide variation in their SES
2. This analysis suggests a complex but significant association between access/use of healthcare and SES
3. Besides, the apparent "healthy migrant" effect found in the total IIP disappears after adjusting by SES  
Immigrants living in the Low SES group have similar health status to the Chilean-born despite being on average 8 years younger

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**RESEARCH QUESTION 5:  
What does study add & policy implications?**

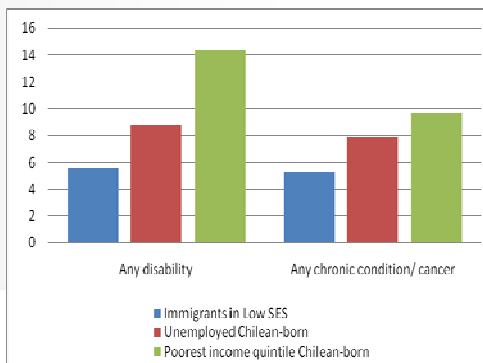
How are immigrants with Low SES different to the most deprived Chilean-born?

Prevalence of recent health events\*  
Comparison between different deprived groups in Chile



\*weighted descriptive statistics

Prevalence of chronic health conditions\*  
Comparison between different deprived groups in Chile



\*weighted descriptive statistics

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**RESEARCH QUESTION 5:  
What does study add & policy implications?**

What is the relative risk of being an immigrant for different health problems in the total Chilean population?

Health outcomes	Crude OR/ IRR of being immigrant (95%CI)	Adjusted OR/ IRR by demographics (95%CI)	Adjusted OR/ IRR by demographics + SES (95%CI)	Adjusted OR/ IRR by demographics + SES + material (95%CI)	Adjusted OR/ IRR by demographics + SES + material + provision entitlement (95%CI) <sup>ψ</sup>
Any health problem or accident last month	<b>0.64*</b> <b>(0.50-0.81)</b>	<b>0.63*</b> <b>(0.49-0.80)</b>	0.76 (0.52-1.21)	0.72 (0.49-1.08)	0.72 (0.48-1.08)
Number of medical attentions last month	1.06 (0.87-1.28)	1.05 (0.87-1.26)	1.16 (0.85-1.59)	1.15 (0.83-1.59)	1.14 (0.83-1.58)
Number of emergency attentions last month	<b>0.69*</b> <b>(0.62-0.77)</b>	<b>0.69*</b> <b>(0.62-0.77)</b>	0.82 (0.68-1.04)	0.82 (0.66-1.01)	0.82 (0.66-1.01)
Any disability	<b>0.49*</b> <b>(0.34-0.70)</b>	<b>0.50*</b> <b>(0.34-0.73)</b>	0.67 (0.29-1.54)	0.70 (0.30-1.60)	0.70 (0.30-1.60)
Any chronic condition or cancer except disability	<b>0.65*</b> <b>(0.44-0.95)</b>	<b>0.67*</b> <b>(0.42-0.96)</b>	0.67 (0.29-1.54)	0.70 (0.39-1.60)	0.70 (0.39-1.60)

\* $p < 0.0001$ , weighted logistic and zero-inflated negative binomial regression models

<sup>ψ</sup> No significant differences when adding use of healthcare services to the model

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**RESEARCH QUESTION 5:  
What does study add & policy implications?**

#### 4. Policy implications & future research

1. Immigrants with Low SES in the policy agenda
2. Dissemination of results in the academic field
3. Future research

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THE UNIVERSITY of York



THANK YOU!

Baltica Cabieses  
[bbc500@york.ac.uk](mailto:bbc500@york.ac.uk)



## **12.2 FURTHER METHODOLOGICAL DISCUSSION 1**

### **WHY NOT USE MULTIPLE IMPUTATIONS TO REPLACE THE MIGRATION STATUS MISSING VALUES?**

As stated in previous chapters, a significant proportion of people interviewed in the CASEN survey 2006 preferred not to report their migration status (0.67%). All other questions in the CASEN survey had a significantly higher response rate (below 0.05% of missing data, see Chapter 5). Due to the sensitive nature of this question, it was decided to analyse these people as a separate group and to compare them with those that reported being international immigrants. The underlying assumption for this decision was that the missing values from the question on migration status in the CASEN survey 2006 are not missing at random. A further description of existing multiple imputation techniques and the challenges faced when missing is not at random will be briefly commented in the following section.

Missing values are a common feature of population-based studies. They can cause biased estimates, biased standard errors and inefficiency due to loss of valuable data. For these reasons, imputation techniques have been developed. They all work by estimating the probability that data are missing, given the values of the observed and missing data (the “missing data mechanism”, Wood, 2010). There are three main categories of missing data: missing completely at random (MCAR, where the probability that data are missing does not depend on the values of observed or missing data), missing at random (MAR, where the probability that data are missing depends on the values of the observed data, but does not depend on the values of the missing data), and missing not at random (MNAR, where the probability of the missing depends on the values of the missing data). In general, researchers cannot tell from the data at hand whether the missing observations are MCAR, MNAR or MAR and in the MNAR setting it is very rare to know the appropriate model for the missing data mechanism (Wood, 2010). The most important recommendation is to carefully look at the data and try to understand the nature of the missing data. That was the intent of the analysis conducted in this study of those that preferred not to report their migration status (i.e. it aimed to explore their data patterns and compare them to the immigrants and to some extent to the Chilean-born).

Patterns observed within the migration status missing values showed that this group live in socioeconomic deprivation and in some cases, present worse health outcomes than the international immigrants and the Chilean-born. Evidence from international literature suggests that missing values from migration status survey questions might not be at random, but could represent vulnerable immigrants living undocumented in the country. I considered that this explanation for the missing data from the migration-status question of the CASEN

2006 survey could be plausible. Therefore, this thesis assumes that the missing data from the question on migration status is not at random and the probability of data being missing depends on the values of the missing data (such as being an undocumented immigrant).

The time limitations of this research did not allow for exploration of innovative techniques for multiple imputation of missing data not at random and this could be assessed in the future. Multiple imputation (MI) is now well established as a flexible, general, method for the analysis of data sets with missing values (Rubin. 1996). As briefly mentioned before, most software implementations assume the missing data are ‘missing at random’ (MAR), that is, given the observed data, the reason for the missing data does not depend on the unseen data (Carpenter & Goldstein, 2005). However, although this is a helpful working assumption, it is unlikely to be true in practice (Carpenter et al., 2007). One interesting recommendation has been made by Rubin (1996) who proposed a linear transformation to approximate possible imputations when data are NMAR and this has been implemented in the past (e.g. Van Buuren et al., 1999). Despite these advances, it is still a challenge to assess the sensitivity of analysis under the MAR assumption to the not missing at random (NMAR) assumption, that is, that even given the observed data, the reason for the missing data depends on the unseen data. Few multiple imputation software packages able to handle this technique, but this issue could be explored further in the future for migration-status missing values. Findings from this research would recommend this analysis accounts for socioeconomic status, contractual status and occupational conditions, legal status, age, sex, and self-perceived discrimination if possible, as these could be key variables that underlie the missing values mechanism.

### 12.3 FURTHER METHODOLOGICAL DISCUSSION 2

#### A COMMENT ON THE CHARACTERISTICS OF THE ESTIMATES OBTAINED FROM THIS STUDY AND MULTIPLE COMPARISON ANALYSIS

This study uses the quantitative approach, in particular the approach developed by the social epidemiology discipline. In this discipline, the fields of epidemiology, sociology and biostatistics are intimately combined in order to promote study designs and statistical analyses that try to answer rather complex research questions, exploring the social roots of the health of a particular population. With regards to the statistical side of this discipline, this thesis has presented a large amount of descriptive, comparative and stratified analyses. It has also conducted several regression models to analyse the association between different variables. Regression models are especially important since they are based upon a number of mathematical assumptions that every researcher should acknowledge and address in their analysis. In this thesis, I have been especially cautious about these assumptions and requirements, in order to provide the most reliable estimators I could possibly obtain from the CASEN 2006 dataset.

The most important general *properties of estimators* are unbiasedness, consistency and efficiency (Wooldridge, 2009). Unbiasedness refers to five specific assumptions that most regression models share, those are that parameters are linear; data is obtained from a random sample; there is some sample variation in the explanatory variables; the assumption of non perfect collinearity (in the sample none of the independent variables is constant, and there are no exact linear relationships among the independent variables, this is especially relevant for multiple regression in population-based models); and the assumption of homoskedasticity (the variance of the error has the same variance given by any value of the explanatory variables, in other words, the variance of the unobservable  $u$ , conditional on a variable  $x$ , is constant). The accomplishment of these assumptions suggests unbiasedness of the sampling distribution, which in turn might lead to unbiasedness of estimators we obtain in a given sample.

Consistency is a minimal requirement for any estimator. This property indicates that if an estimator is consistent, then the distribution of the Beta-coefficient (the estimator) becomes more and more tightly distributed around itself as the sample size grows (that is, smaller standard errors and closer confidence intervals around the coefficient). As the sample size tends to infinity, the distribution of the Beta-coefficient collapses or converges to the single point of Beta. Consistency can only be achieved through unbiased estimators.



Efficiency (based on the Gauss-Markov theorem) refers to the idea that, under the assumptions described for unbiasedness, estimators are the *best linear unbiased estimators* (acronym BLUE). Under this assumption, estimators obtained for the living conditions and health status of international immigrants and the Chilean-born (comparison group) should be unbiased. In addition, efficiency suggests that including any irrelevant variable in a model does not affect the unbiasedness of both the intercept and the slope estimators (but does increase the variance, because of multicollinearity). At the same time, efficiency also refers to the fact that the omission of relevant variables leads to bias.

In this thesis, properties of estimators have been addressed by using the most suitable statistical regression models according to each type of variable, the size of the sample or sub-sample (for conditional models), and the use of population-based weights. Every chapter includes a comment on these issues. Despite this effort, I should recognise the exploratory nature of some estimators obtained from the study and consider how some estimators might not fully accomplish the properties of unbiasedness, consistency and efficiency. This is particularly relevant in sub-group analysis conducted within the immigrant population (conditional models by sex or age-groups) in which absolute numbers fall and regression models tend to lose their unbiasedness. In addition, this is also significant for rare events in this study (i.e. prevalence below 15% in the CASEN survey). In these cases, all regression models estimated should be interpreted with caution, as random and systematic error could explain some of the significant associations observed (e.g. any disability, any hospitalisation or surgery, any chronic condition or cancer).

Another feature of interest is related to *multiple comparison tests* in any study that uses a quantitative approach. Multiple comparisons or multiple analyses refer to several comparisons carried out from the data obtained in one particular study. In this thesis, they are comparisons between two groups for more than one outcome (i.e. different health outcomes) and subgroup analysis (i.e. conditional models by sex and age groups). The main risk associated with multiple comparisons is that there is a higher probability of finding differences between groups by chance (i.e. false positives) (Brookes et al., 2004; Lord et al., 2004; Rothwell, 2005). The formal problem is well presented by Bender & Lange (2001), who have indicated that the Experiment-wise Error Rate ( $ERR=1-(1-\alpha)^k$ ) mathematically increases as the number of tests increases. For example, if  $\alpha=0.05$  and 100 tests are performed, the EER is 0.994, i.e. it is very likely to obtain at least one false (positive) significant result. Though, this estimate is true only if the  $k$  tests are independent.

The most frequent remedial action reported in the expert literature is to consider an adjustment for multiple comparisons (e.g Bonferroni method) (Bland & Altman, 1995).

However, when research is exploratory like presented in this thesis, the researcher does not have an *a priori* structure for conducting the multiple test and adjustment is very difficult to conduct. Consequently, it has been suggested that exploratory analyses should be made without multiple test adjustments and used in instead in future confirmatory studies. This is the first population-based study on the living conditions and health status of international immigrants in Chile, and no previous structure for conducting the multiple test adjustment has been found in the Chilean setting, so the exploratory nature of this research must be recognised and accepted. Future research based on the hypotheses presented throughout the results chapters will be discussed later in this final chapter.

## **12.4 FURTHER METHODOLOGICAL DISCUSSION 3**

### **WEIGHTED ANALYSIS VERSUS MULTILEVEL ANALYSIS VERSUS BOTH COMBINED: DOES IT MATTER?**

The sample of the CASEN 2006 survey was obtained by a multistage sampling design. Analysis in this study relied upon the use of weights. Weighting methods are designed to adjust for the effects of sampling that are not accounted for by the covariates included in the model. They can also protect against model misspecification (Pfeffermann, 1993). Weighting in standard regression models such as the ones conducted in this thesis, can be viewed as an application of the “pseudo-maximum likelihood” (PML) approach (Skinner, 1898; Skinner, 1995; Binder, 1983). The basic idea of PML is that sample selection would not lead to bias if the values for all population units were observed, as in a census. If this were the case, one could compute the population (census) likelihood and achieve consistent estimations by maximising this likelihood. When standard regression models are fitted to survey data, the finite population values are considered as independent so that the census log-likelihood is a sum which may be estimated consistently by simple weighting of the sample observations (Pfeffermann et al., 1998).

The use of weighting methods in survey data is widely accepted, but there has been some discussion concerning the alternative (and additional) use of multilevel analysis in survey studies. As stated by Pfeffermann et al (1998), sample surveys often employ multistage sampling schemes that involve unequal selection probabilities at some or all the stages of the sampling process. Even though these schemes are chosen for cost/administrative reasons, the hierarchical population structure underlying such schemes is usually of great interest. Multilevel models (Goldstein, 1995) are an important class of regression models that may be employed to represent such structures.

Models that take account of hierarchical and non-hierarchical data structures have now been used for several decades. In many application areas, multilevel models (also known as hierarchical linear models, random-effects models and mixed models) have become part of the standard toolkit of statistical methods. This is in part due to the easy availability of such methods in statistical software packages. Although multilevel modelling was initially implemented only in specialist packages, most ‘general purpose’ statistical packages now offer some multilevel modelling functionality. Another reason for the increasing interest in multilevel models is widespread recognition that realistically complex models are needed to understand complex social processes better (Browne and Steele, 2009).

In addition to the structural advantage of using multilevel models in population-based survey samples, it has been suggested that multilevel models can incorporate as covariates certain characteristics of the sampling design, such as strata and cluster indicators, and that conditionally on these characteristics the sampling design could be ignored (Rubin, 1976). This last argument can be inadequate, however, when units at any level of the hierarchy are selected with unequal probabilities in ways that are not accounted for by the model. When this occurs, some experts have suggested using weighting techniques for unequal selection probabilities in multilevel models (Pfeffermann et al., 1998).

There are two significant reasons why weighting multilevel models are different to weighting techniques in standard regression models. The first one is that the finite population values are not truly independent in weighted regression models and therefore the PML basic approach could be questioned (i.e. census log-likelihood is not a simple finite population sum and therefore it cannot be estimated by simple weighting of the sample observations). The second one is that overall inclusion probabilities of the ultimate sample elements do not carry sufficient information for appropriate bias correction, unlike the single-level regression case. This is a growing discussion among survey-based researchers and statisticians, and there is no formal consensus on what approach should be taken and under which conditions (e.g. Goldstein, 1995; Pfeffermann et al., 1998).

In this thesis, I estimated standard regression models with the use of weighting techniques, as recommended by the group that led the CASEN 2006 survey (MIDEPLAN 2006). Even though it would be a very interesting to explore the advantages of using weighted multilevel models, this type of analysis goes beyond standard techniques and would require a separate detailed study and statistical expertise.

## **12.5 FURTHER METHODOLOGICAL DISCUSSION 4**

### **THE ISSUE OF THE COUNTERFACTUAL IN RESEARCH ON MIGRATION AND HEALTH: WHO SHOULD WE COMPARE IMMIGRANTS TO?**

In this thesis, all effect measures estimated among the immigrant and the Chilean-born populations are based on the underlying, and long discussed, matter of the counterfactual or potential outcome theory (Goodman, 1947). They are called counterfactual measures because at least one of the two conditions in the definition of the effect measure must be contrary to fact. One key feature of counterfactually defined effect measures is that they involve two distinctive conditions: an index condition, which usually involves some exposure or treatment, (e.g. migrating), and a reference condition such as no exposure or treatment, against which this exposure or treatment will be evaluated. In other words, to ask for the *effect* of exposure is meaningless without reference to some other condition (Maldonado and Greenland, 2002). Definitions of what an exposure/treatment and a reference are depend on the nature of the study, but any epidemiological research usually attempts to compare two relatively similar and “comparable” conditions (e.g. being an immigrant versus not being one). When two different conditions are compared, the measure of effects might be highly biased and therefore, might not truly represent what happens in reality.

In this thesis, effect estimates were developed by comparing immigrants with the Chilean-born, or immigrants in the Low SES cluster versus the Medium or High SES cluster. Possibly the most significant discussion to arise in this matter is whether the Chilean-born population truly is the best comparison group to use when examining the living conditions and health of immigrants in Chile (i.e. are the Chilean-born the best counterfactual for immigrants in Chile? Is there any better comparison group?). It is not my intention to extend this theoretical discussion into the details of the issue of the counterfactual (for that see for example, Jones, 2006; Cameron and Trivedi, 2005; Angrist, 2004, Hernan 2004; Newman, 2004; Parascandola and Weed, 2001; Guen, Guo and Fung, 2002), but simply to highlight within migration and health research, that this is certainly a dimension that researchers should pay attention to.

In a preliminary stage of this thesis I considered using a different comparison group. I tried to explore the living conditions and health of the Peruvian immigrant population in Chile in the CASEN survey by comparing them to the Peruvian population in Peru using the Demographic Health Survey (DHS survey) 2004-2008. Because of the great complexity of the international immigrant population and the difficulties of trying to create comparable variables across surveys, this was not further developed. Nonetheless, it is certainly a

possible step to take in the future in order to better understand who international immigrants in Latin America are, how they live, and how their health changes over time and through which exposures. Patterns within the immigrant population in this region and all over the world are highly sensitive to the comparison we make and the reliability of numerators and denominators that are used to create effect measures. These elements are well-known in the international literature on migration, but little is discussed in Latin America.

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