

Learning from promising primary care practice models for the USA



Country Case Study: Chile



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Executive summary

The project ‘Learning from Promising Primary Care (PC) Practice Models for the USA’ seeks to identify and describe promising PC practice models and approaches that have relevance to application in the United States (US) and to inform policy and practitioner dialogues on models and measures that could be adapted or adopted in the USA. This report provides an overview of PC in the Chilean context, focusing on areas where the Chilean PC system is performing well, the challenges, opportunities and leverage points for improvement and considers new policy initiatives underway.

The report is a narrative analysis, synthesising evidence of key features of PC practice in Chile from a desk review of published and grey literature and findings from 18 key informants, including central policymakers, local PC managers, frontline providers (physicians and others), community representatives, a representative of a PC professional association, and academics with first-hand knowledge and experience. Structured around the domains of the project’s conceptual framework for analysing PC, the report presents findings on the general and health system context, the PC model and process, the social roles, health outcomes and issues in management of change in the Chilean system.

Chile is a South American country facing profound social and cultural challenges associated with rapid economic growth, societal changes and population aging. A combination of sustained economic growth in a free-market economy, increasingly robust institutions and innovative social policies has yielded an upward spiral of developmental progress.

Social and health policies in Chile emphasise fulfilling rights, with rights-based, social guarantees (including a minimum standards equity concept) and intersectoral approaches to integral social protection, such as *Chile Solidario*, focused on indigent families, and *Chile Crece Contigo*, an early child development system, whose entry point is PC. Nevertheless, continuing social inequities in Chile are profound, generating social discontent and fuelling social mobilisation and demands for more structural reforms. Changes in health

risks associated with population aging and modern living, including environmental pollution, stress, social isolation, substance abuse and unhealthy behaviours, are reflected in Chile’s burden of disease. Non-communicable diseases (NCDs) account for 83% of total disability-adjusted life-years (DALYs). Injuries count for 12% and communicable, maternal, perinatal and nutritional diseases are only 4%.

Chile’s early commitment to universal health coverage (UHC), independent of contributory capacity, has been consistent despite dramatic political changes. The dual legacy of a National Health Service (SNS) and a private health insurance market configured the current complex health system of public (FONASA) and private insurance (ISAPRES) and provision. Overlying it is a system of additional guarantees for priority health conditions (AUGE), established in the 2005 health reform. However, the Chilean health system is predominantly public (80% of the population is enrolled in FONASA, 90% in poorer regions of the country) and organised into 29 health services, responsible for coordinating territorial healthcare networks.

The main entry point to the health system is the public PC system, covering almost 12 million FONASA affiliates (three-quarters of the population) with a network of PC facilities, including rural health outposts, developed over decades and reaching almost every corner of the country. It is mostly municipal and publically financed through capitation (70%) and activity-based special programmes for reinforcing PC capabilities to resolve specific health problems.

The PC delivery model is based on interdisciplinary health teams working in PC centres to resolve 90% of health problems at this level, with referral to other levels of care. With a biopsychosocial family and community health model (MSF), it builds on the strengths of the maternal-child preventive care model. Until now there has been less emphasis on adult preventive programmes that move teams out of centres to work with communities and families to halt the growing prevalence of NCDs and related risk factors. This is partly due to increasingly complex medical demands from the accumulated burden of chronic disease that need

to be resolved by the system, requiring a combination of robust clinical capacity, communication skills and community work. Primary care, however, has also had difficulty in attracting and retaining physicians and family medicine specialists, related to salary levels, perceptions of inadequate professional challenges, working conditions and prestige.

Through AUGE, Chile has tried to provide additional guarantees for health priorities, largely delivered in PC. The guarantees have been extraordinarily positive for people whose conditions are covered. At the same time, meeting guarantees has also distorted the idea of integrated coverage for the entire population and created financial and administrative burdens. Nor did implementation adequately address critical structural PC constraints, such as underfinancing.

The mainly curative focus of AUGE benefits is at odds with the PC family and community health model, but aligns with the demand from the health system and the population for more technology and specialised care. In recent years, increasingly hospital-centric and market-oriented policies have limited progression of the PC model. PC development has differed across municipalities, depending on local vision, resources and capacity. Nevertheless, the underlying strength and commitment of PC health teams has also led to a proliferation of 'good practices', although with little evaluation.

The holistic approach to family and community health of MSF, defined as the road map for PC in Chile, encourages a strong social role for families and community organisations. Social participation goals are linked with results-based incentive mechanisms. Transforming discourse on participation into practice, however, has not been easy. Factors relating to the general political context (participation as consultative, power asymmetries, paternalism and lack of funding) and local problems (validity of representatives, authoritarian leadership and resistance to change on the part of health teams) constrain effective participation and development of social roles.

At the national level, the Ministry of Health has a leadership role in developing a conceptual, legal, and management framework to produce and leverage substantive changes in the national health system. It sets national health objectives, providing the basis for planning and programming linked with management control and results-based budgeting. Commitment of PC workers is crucial. Specific collective workforce incentives and institutional controls are oriented towards achieving the system's goals. In addition, change is informed by evidence from epidemiologic, social preference and cost verification studies. Universities and PC communities of practice, play pivotal roles in knowledge sharing and learning to generate and sustain PC transformation by engaging municipal directors, frontline providers and community leaders.

Our findings indicate that the Chilean PC system is at a critical juncture in terms of the transition towards a transformative PC model. New policy proposals to reposition PC within the health system and the broader social protection system, including increased financing, incentives for family medicine specialists, doctors and specialists in training, closing gaps in electronic health records and integrated information systems, and a more integral chronic care model, are promising but may not be enough to redress structural deficiencies. Strengthened monitoring and evaluation of new interventions are crucial.

Nevertheless, several models of Chilean PC practice are informative, including: multiprofessional family and community health teams; the biopsychosocial model, based on intersectoral action on social determinants, whose maximum expression is Chile Crece Contigo; the AUGE health guarantees model; results-based budgeting and performance incentives linked to national health objectives; private university clinical excellence and family health practice; and an innovative public health equity agenda experience.

1. Introduction

The project 'Learning from Promising Primary Care Practice Models for the USA' is being implemented through the Training and Research Support Centre (TARSC) with support from Robert Wood Johnson Foundation (RWJF). It seeks to identify and describe promising primary care (PC) practice models and approaches from countries with better health outcomes at lower costs than in the USA and to inform policy and practitioner dialogues on models and measures that could be adapted or adopted in the USA.

The first stage of the project involved development of a conceptual framework and three desk reviews of evidence, summarised in a separate background synthesis paper (Loewenson et al. 2014). This work identified the domains and constructs for analysis of the PC system's features and role in improved health outcomes, evidence of the challenges and opportunities facing PC in the USA, knowledge of how these challenges are being addressed in other high- and middle-income countries (HUMICs) and areas for deeper case study investigation.

This report provides an overview of PC in the Chilean context, following the domains and constructs of the conceptual framework. It focuses on areas where the Chilean PC system is performing well, the challenges, opportunities and leverage points for improvement and considers new policy initiatives underway.

The case study aims to gather and synthesise primary and secondary evidence to identify features of PC practice models in Chile that show positive health outcomes in terms of access, equity, quality and efficiency. It describes key areas of information and answers country-specific questions related to the general and health system contexts, key features of the PC system and service delivery model, social roles and interactions, factors that support improved health and healthcare outcomes and how these policies and practices were introduced and sustained.

The scope of the case study is national and system wide. It covers relevant macro- (national), meso- (institutional), and micro- (local) level information and makes reference to local, unique examples where relevant.

2. Methods

The methods include a document review and key informant interviews to gather and synthesise secondary and primary evidence within the generic framework, as feasible, focusing on specific features, examples, potentials and concerns of the PC model.

The **document review** entailed a systematic literature search, including texts identified through snowballing and other opportunistic processes (see *Appendix A1* for inclusion and exclusion criteria). Search parameters included: Spanish and English; published and grey literature; literature after 1990 to encompass relevant influences on the current PC model in Chile, but privileging later texts from 2000 on; and earlier pertinent literature identified by experts and key informants. In total, 344 documents were selected for full review. This includes journal articles, key government/policy reports, statements and reviews; relevant operational documents from health authorities and systems; and reports and evaluations of specific reforms, innovations, practices and indicators used for monitoring. Additional data from health system registers were also analysed.

Key informants (KI) included a mix of 18 experts with direct knowledge and understanding of current PC policies, on-the-ground impacts and practices. They were identified through different sources (organisations, practice communities and document review) and selected to include a diversity of central policymakers, municipal PC management, frontline providers (physician and other), patient and community and professional association representatives and academic experts with direct experience in public or private PC practice. Six KI were from outside the Santiago Metropolitan area (see *Appendix A1*).

Face-to-face interviews were conducted, after obtaining informed consent, using a semi-structured tool constructed around the framework domains and specific questions relevant to Chile. Questions to key informants were guided by the information gaps and issues from the document review. Information from key informants was also checked with that obtained from other key informants as interviews progressed. The transcriptions were analysed with ATLAS.ti software, using the framework constructs.

Ethics review. The protocol with the informed consent for KI interviewees was approved by the Ethics Committee of the Faculty of Medicine (Comité de Ética de Investigación en Seres Humanos, Facultad de Medicina, Universidad de Chile) on April 22, 2014.

This report presents a narrative analysis, synthesising the different types of knowledge from both sources and structured around the domains of the conceptual framework. The report emphasises the questions defined in the case study protocol, within the constraints of the available literature and key informant knowledge. Data collected from documents, statistics and informants were triangulated for mutual confirmation.

The report presents leading views, noting exceptions or different opinions about important aspects. External peer review of the draft report highlighted areas that merited greater attention in the final paper. Appendices give further detail on specific areas referred to in the report that may be relevant to the project. Any awkwardness or imprecision in the English translations of citations from Spanish-language documents and interviews are the responsibility of the authors.

Limitations. Given time constraints and the scope of the study of PC practice in Chile, the literature search is likely to have omitted some documents. Electronic search engines tend not to include grey literature, an important document source for this study. This limitation was addressed by searching institutional websites and libraries and through snowballing and discussions with investigators and informants to retrieve additional key references. More directed searches were necessary to obtain information about some of the constructs in the framework.

Many of the documents were local reports not generalisable to the national context or expressed opinions rather than evidence. Numerous documents described specific interventions often with inadequate evidence about impacts. To mitigate partially the lack of information on outcomes, the authors analysed trends using health sector statistics. What gets into the literature does not necessarily reflect

practice. Information on the tensions and debates around the introduction of health policies and their implementation is generally inadequate. Thus, supplementation by KIs to understand what is really happening was crucial. However, informants have their own impressions and biases, which may not represent the perspectives of others. It is also difficult to generalise across interviews. Similarly, there is a variety of evidence and perspectives in the literature.

Accordingly, the analysis relied on comparison and contrast across data sources as the basis for the paper's findings, focusing on the leading views but also highlighting dissenting perspectives in key areas.

Lastly, the compilation and analysis of primary and secondary evidence was carried out in only three months, a time frame restricting analytical depth.

3. Primary care in Chile

3.1 National and health system context

Chile is a democratic, developing country with a population of 17.46 million, facing profound social and cultural challenges associated with rapid economic growth, societal changes and population aging (Gobierno de Chile 2014; Gitlin and Fuentes 2012). In 2013 the World Bank classified Chile as a high-income country. Despite this, with an annual per capita income of \$14,310 (2012), less than 30% of the USA, Chile is closer to the upper middle-income level (World Bank 2014). Chile ranks first in Latin America and fortieth out of 187 countries in the UNDP Human Development Index (UNDP 2013). Particularly after the return to democracy in the 1990s, a combination of sustained economic growth in a free-market economy, increasingly robust institutions and innovative social policies yielded a 'virtuous cycle' of economic and social advances, promoting an upward spiral of developmental progress (Ranis and Stewart 2002). Chile weathered the 2008 global financial crisis and has continued to grow between 4-6% annually (World Bank 2014). The strong economy has enabled average annual increases in total social spending of 5.9% between 1998-2009.

Public spending in health grew 7.9% per year on average in this period, higher than the average across OECD countries, while the poverty rate fell from 45.1% in 1987 to 14.5% in 2011 (Contreras and French-Davis 2012; OECD 2014a, 2014b). Nevertheless, social inequities continue to be profound, exemplified by a Gini index of 0.52 (OECD 2014c), despite intense public policy efforts. This has generated social discontent, social mobilisation and demands for more structural reforms to ensure equal rights in education and health and greater participation (Meyer 2014).

Average life expectancy at birth is 79 years (82 years for women and 76 years for men), showing a six-year increase between 1990 and 2011 (WHO 2013). Chile is at a stage of advanced demographic transition with population growth under 1% and a population structure with 21% children (0-14 years) and 9.7% 65+ years, projected to reach 20% by 2025 (Instituto Nacional de Estadísticas 2013). Changes in health risks associated with population aging and modern living, including environmental pollution, stress, social isolation,

substance abuse and unhealthy behaviours, are reflected in the burden of disease. Non-communicable diseases (NCDs) account for 83% of total disability-adjusted life-years (DALYs). Injuries account for 12% and communicable, maternal, perinatal and nutritional conditions are only 4%. Half (51.2%) of total DALYs and the top three burdens for both men and women are neuropsychiatric disorders, digestive diseases and cardiovascular disease (MINSAL 2007b). Potential health risks also relate to vulnerability from recent earthquakes and emerging problems associated with globalisation, including pandemics and climate change (MINSAL 2011; Ministerio de Medio Ambiente 2013). The interplay of these political, economic, demographic and epidemiological factors have provided impetus for social and health reforms in Chile, including the design and functioning of PC options and approaches relevant to this study.

Social values shaping health and social policy commitments

The pursuit of solidarity and equity underpins Chile's longstanding commitment to universal health coverage and state interventionism in health. Instituted at the beginning of the 20th century within a broader social welfare framework, this commitment led to the establishment of the Chilean National Health Service (Servicio Nacional de Salud, SNS) in 1952 and survived drastic changes in political regimes and policy perspectives. While governance shifts from democracy to dictatorship (1973-1989) and back influenced the specific role, scope and mechanisms for state involvement, the notion of governmental responsibility in social and health provision, at least for vulnerable groups, has endured (Montecinos 1998). The return to democracy sparked a renewed vision of state social responsibility, materialised through increased public spending and policy innovation to address the social 'debt', restoring public healthcare institutions and increasing private sector regulation (Lenz 2007) (see *Appendix A2* for historical milestones in Chile and the legal framework in *Appendix A3*).

Social and health policies in Chile today emphasise fulfilling rights, moving from targeted to progressive universalist policies, driven by social demands for equal rights and greater solidarity (Contreras and Ffrench-Davis 2012; Sojo 2006). Comprehensive rights-based approaches to social protection were implemented during the 2000s including: Chile Solidario focused on social inclusion and effective coverage of the most vulnerable families, older people who live alone and the homeless (see *Box 1*); Chile Crece Contigo, a universal progressive approach to social protection for children, whose entry point is the primary care system (Frenz 2007; Gobierno de Chile 2014)

(see *Box 2* overleaf); and AUGE, part of the 2005 equity-oriented health reform, establishing universal enforceable health guarantees for comprehensive, timely and affordable quality care to address priority health conditions (*Appendix A4*), representing 75% of the burden of disease (Sandoval Orellana 2004). The first two programmes deliberately use Chile in the title to emphasise their vision of an active, caring society accompanying individuals, families and the community throughout the life course, with heightened intervention at critical stages or situations: poverty, job loss, childhood and old age (Frenz 2007).

Box 1: Chile Solidario (Chile in Solidarity)

Chile Solidario is coordinated by the Ministry of Social Development (MINDESOP) and its regional secretariats involving health and other social sectors and is implemented mainly by municipal governments with some NGO support. It was created in 2002 as part of an integral social protection system focused on social inclusion of indigent families to reduce extreme poverty. Local social service personnel deliver the psychosocial component (Programa Puente), which is particularly innovative. Service personnel work directly with families through frequent home visits to build psychosocial capital, confidence, capacities and skills to participate in social and economic activities. It connects them with an array of social services and assistance programmes, including PC and economic subsidies (Carneiro et al. 2013). Special schemes tackle the specific needs of older adults who live alone (Programa Vínculos) and the homeless (Programa Calle) (Ministerio de Desarrollo Social 2014). An evaluation using ten years of panel data from administrative records and a robust regression discontinuity design showed modest gains in access to subsidies, welfare transfers and training courses but little change in employment or housing conditions (Carneiro et al. 2013). Other studies found positive impacts in PC registration and use of preventive health visits for women and children under six years of age but not on health outcomes (Galasso 2011). However, the programme's implementation coincides with a reduction in extreme poverty rates from 5.6% in 2000 to 2.8% in 2011 (Ministerio de Desarrollo Social 2011). Several Latin American countries have adapted aspects of Chile Solidario, including Colombia's Juntos Unidos and Brasil Sem Miséria (Carneiro et al. 2013).

One of the key informants emphasised the relevance of such programmes to effective primary care (PC), noting Chile Crece Contigo's interface with PC and synergy with the family and community health model: *Chile Crece Contigo brought new wind after AUGE. It had all the psychosocial and biological tools and goals to service population needs. It vindicated the family health model. Whereas AUGE was curative services and medicines, here there was follow-up, rescue, promotion and prevention....articulation with other sectors....So, when Chile Crece Contigo appeared I argued that we also needed a Chile matures with you (sic), ages with you and dies with you.* (KI: academic)

The 2005 health reform: AUGE health guarantees and public health strengthening

AUGE (also known as GES) sought to transform traditional health system-beneficiary interaction by empowering people with rights, focused on specific guarantees and health conditions. Health professionals, especially doctors, resisted the explicit priority setting and increasing social and administrative controls. Despite gradual implementation, adaptation has been complex at all levels, reinforcing the

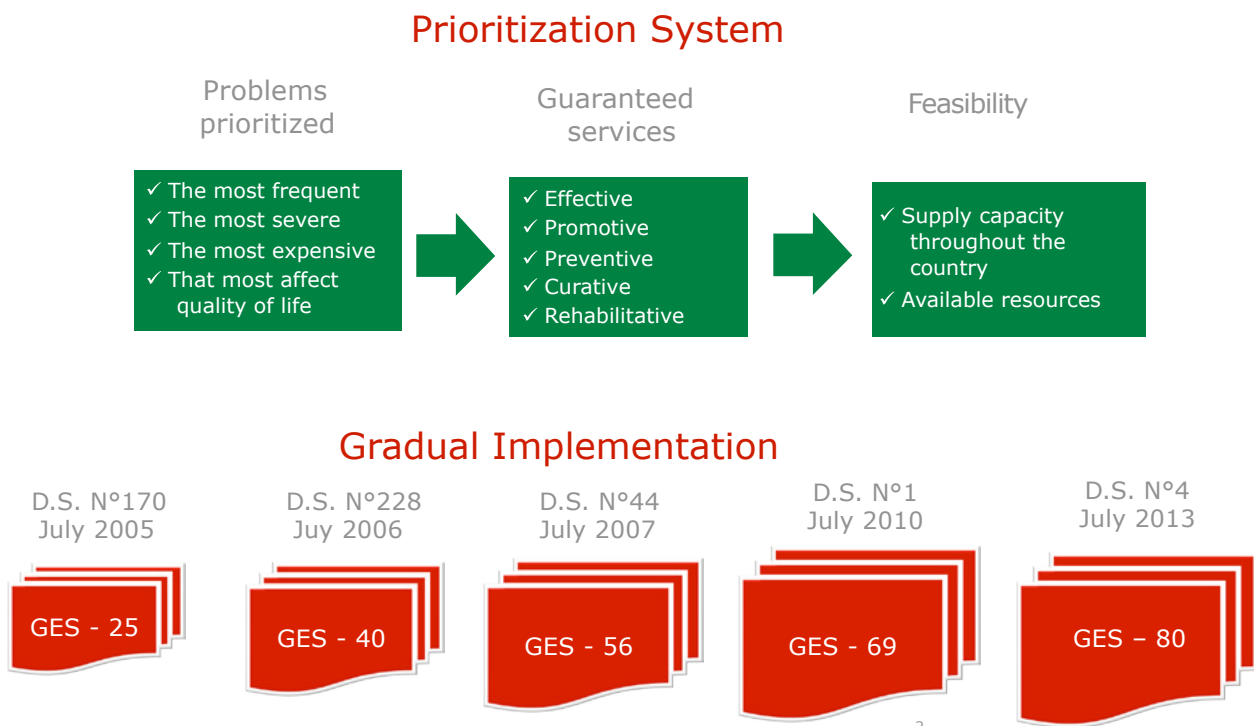
health workforce's ambivalence, despite population support (Programa de las Naciones Unidas para el Desarrollo 2009). The implementation did not adequately consider structural deficiencies, such as deficits in financing, human resources and management weaknesses. As confirmed by the KIs, the need to purchase services in the private sector to meet guarantees, and the subsequent incentives to move to private practice, have undermined the public sector (Programa de las Naciones Unidas para el Desarrollo 2009; Román and Muñoz 2008). Others note difficulties in segmenting healthcare not only by disease, stage of illness or care but also by age restrictions (Zúñiga 2011).

AUGE provides a continuous **multicriteria, evidence-based prioritisation** and decision-making process to expand gradually the number of priority health conditions and benefits that are part of the guaranteed benefits package (see *Figure 1* overleaf).

Box 2: Chile Crece Contigo (ChCC)

Chile Grows with You (2006) is a social protection system for children, coordinated by MINDESU, which seeks to protect and support all children's integral, biopsychosocial development from gestation until age four. It is a universal progressive policy offering legal protection, learning tools and information for all children and their families with differentiated services for those with greater needs (Ministerio de Planificación 2009). Sectoral ministries are responsible for specific components delivered at the municipal level, including: the health sector for biopsychosocial development for public PC users; education for policies and standards for preschool education; Labour and the National Women's Service for legislative protection; the National Board of Kindergartens for access to day care and preschool for children from the 60% lowest income families; and the National Disability Fund for technical aids for children with disabilities. The entry point is primary care, starting with the first prenatal checkup where the PC team develops a personalised health plan, and sets up home visits and connects with the municipal social services network (*Appendix A5*). The poorest 40% of families are guaranteed an economic subsidy from the fifth month of pregnancy until the child is 18 months old (Gobierno de Chile 2014). MINDESU administers the intersectoral management structure, setting common and specific sectoral programme goals and determining budget allocations and results-based controls, including a monitoring and evaluation system. Regular implementation surveys since 2007 mean information on infrastructure, procedures, human resources and inputs in PC centres, maternity services, and neonatal and paediatric hospital units is available. The 2011 survey shows most centres in the medium-high group, although implementation gaps persist, with important geographic differences (Chile Crece Contigo 2013). An external evaluation of short-term impacts on child development at four years of age, comparing cohorts of children born before and after the programme's start, shows significant increases in social personal skills, adaptation abilities, and motor development in the treated children, but no differences in communication skills. Surprisingly, normal cognitive development was higher in the control group. These inconsistencies may be due to poor functioning in early stages of implementation, since the density of services received and later time periods are positively associated with impacts (Departamento de Salud Pública Pontificia Universidad Católica de Chile 2013). However, KIs also identified some ongoing implementation challenges, including the need to incorporate community and family interventions and to strengthen intersectoral programmes to address complex family risks, such as drug addiction and violence. Finally, despite the intense intersectoral collaboration in the design and initial implementation phases, intersectoral interaction has been mainly limited to individual coordination of each sector by MINDESU (Cunill-Grau et al. 2013).

Figure 1: Guaranteed Health Plan GES/ AUGE: Enforceable guarantees, access, maximum waiting times, quality and financial protection



By law, the explicit priority-setting process requires the use of national, epidemiological, burden of disease and cost-effectiveness studies and must consider social preferences and feasibility. Consultative procedures by an independent, technical consultative council, are mandatory (Vargas and Poblete 2008). The prioritised AUGE conditions, reaching 80 in 2013, are 'covered' with enforceable guarantees of timeliness (specified maximum waiting times), quality (adherence to evidence-based clinical guidelines) and higher levels of financial protection (copayment levels and ceilings) (Castro Aplabaza et al. 2006; Sandoval Orellana 2004). At least 20 of the conditions, including the principal NCDs affecting the Chilean population, have guarantees delivered mainly in PC facilities in the public system (see *Appendix A4*). The original AUGE design proposed guarantees for the complete PC family health plan (see *Appendix A6*) and the integral family and community health model with a biopsychosocial approach. However, uncertainties about costs, difficulties in implementing universal guarantees and the private sector's resistance meant that the family health plan remained only as a public sector PC strategy, prioritised, but without the force of legal entitlements (Téllez 2006; Montero et al. 2010).

While KIs working in municipal PC recognise the benefits of AUGE (GES) in expanding basic coverage and providing access to medicines, they note that its disease focus works against a PC focus on health promotion and prevention of NCDs, diverting attention from social determinants such as smoking or drinking (KI: PC manager). Despite good policy intentions of coverage for all without financial risk, the enforceable guarantees were introduced in PC at a time when the family health model was in transition and guarantees ... *deflect[ed] the per capita from prevention* (KI: PC provider). These concerns are also highlighted in the literature (Montero et al. 2010; Román and Muñoz 2008). Some informants nevertheless valued the technological innovation driven by universal guarantees, such as in telemedicine, noting that fewer people die because an electrocardiogram can now be more easily done and assessed by a cardiologist, and that this is available throughout the country (KI: Health manager).

Public health and action on wider determinants of health was strengthened in the reform, with the creation of a new Public Health Undersecretary in the Ministry of Health, a network of Regional Health Authorities (SEREMIs) and through establishment of national health objectives (MINSAL, Ministerio de Salud, 2002). Regulations were passed addressing the determinants of NCDs, such as the tobacco framework law, promulgated in 2005 and expanded in 2013, and a food labelling, marketing and nutritional composition law passed in 2012 (Salinas C et al. 2013). The Undersecretary of Public Health also implemented a Steps toward Health Equity agenda (see *Appendix A7*) including

the review and redesign of PC-based programmes from an equity and social determinants perspective (see *Section 3.4*) (Vega 2011). Between 2010-2014, however, the Piñera government focused on resolving hospital waiting lists by increasing purchasing from private providers, expanding vouchers to access specialist care directly and emphasising healthy lifestyles (MINSAL 2011a). At municipal level, significant efforts continued to develop PC approaches, albeit in a heterogeneous way that depended on the vision, will and resources of local authorities.

Impact of AUGE on service coverage

Integral oral health for six-year old children, included since 2005, has generated 133,705 PC dental discharges in 2011: of which 10% were educational, 25% preventive controls for high-risk children, and 65% integral curative and recuperative interventions (MINSAL 2013a). In the public sector, coverage for depression, provided mainly in PC, increased 70% from 20% in 2005 to 34% in 2008 (Bitrán et al. 2010). Between 2000 and 2006, there was a reduction in hospitalisations for complications related to AUGE conditions by 10% for hypertension and 7% for diabetes 1. This is an important result considering that 10% of hospitalisations in Chile are avoidable (Orrego et al. 2014; Stranges and Stocks 2010). However, possibly because of better access, hospitalisation rates increased by 13%, 9% and 26% for diabetes 2, epilepsy and depression, respectively (Bitrán et al. 2010). Hospital mortality for myocardial infarction decreased significantly in high-risk groups (Nazzari et al. 2008). Positive health outcomes associated with AUGE guarantees included reduced decayed/missing/filled teeth in 12-year olds associated with PC dental care. There were also mortality reductions between 1998-2007 in cervical cancer (by 3%), in ischemic disease (by 24%) and in diabetes mellitus (by 17%) (MINSAL 2010b).

With the vision of strengthened PC unfulfilled, the current government (in office since March 2014) pledged to reduce significantly social inequalities and increase social inclusion through structural tax, political and education reforms and measures to bolster public social services (Meyer 2014; Bachelet 2013). Strengthening the public healthcare system, especially the integral family and community health PC model, is a priority. Measures already underway include a rise in health financing, incentives to train and attract family medicine specialists, a pharmacy fund to ensure free medicine for chronic conditions and implementation of a more integral chronic care model (Molina 2014; Yáñez 2014).

The organisation of the health system

Policy shifts over the last four decades, from a National Health Service to a private sector bias and then a health rights perspective have led to a complex system of public and private health insurance and service provision (*Figure 2* overleaf).

Figure 2: Health system structure in Chile**Organization by function**

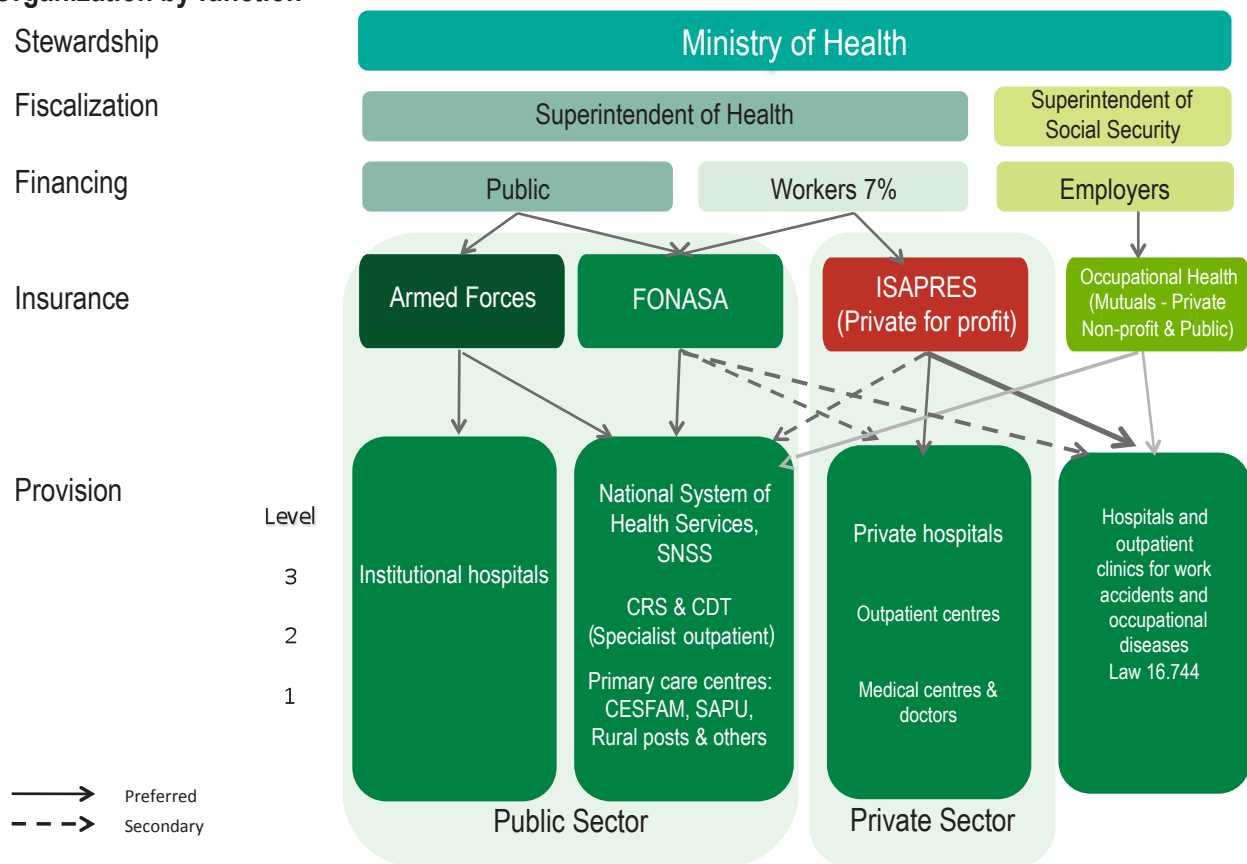
Stewardship

Fiscalization

Financing

Insurance

Provision



Source: Adapted by the authors from a personal communication
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Chile has universal health coverage through a social insurance system. The 1981 Constitution establishes the right of all residents to health protection, freedom and equal access to health promotion, protection, recovery and rehabilitation, and to freely choose between public and private insurance (Ministerio Secretaría General de la Presidencia 2005). This right is exercised through governmental public health actions and through enrolment in public or private insurance plans. By law, all dependent and independent workers must enrol with either the National Health Fund (FONASA) or one of the private insurance companies (ISAPREs) and make a monthly contribution of 7% of their salary (or reported income) up to a monthly salary ceiling of approximately US\$2,700 (MINSAL 2006; Bitran 2013) (see *Appendices A3* and *A8*). Employers who do not transfer the payroll contributions of salaried workers are fined and independent workers face higher direct costs of health services.

In reality, an individual's income and health risk ultimately determines which system she or he chooses because the two subsystems are subject to different rules. FONASA is

a public social insurance system guided by universality and solidarity, guaranteeing coverage independent of financial resources. It acts as a last resort insurer for those unable to afford private insurance and reinsurance for people who face difficulties affording private insurance, especially as their risk increases. A mandatory 7% contribution covers the worker and his or her dependents for comprehensive services, subject to availability.

The ISAPRE requires a mandatory 7% payroll deduction, but people usually pay an additional premium (averaging around 10% of wages), depending on the number of dependents, comprehensiveness of benefits and copayment levels. This has led to a large number of diverse plans, which are renewed annually subject to price increases. By law, private health plans must offer, at a minimum, FONASA's catalogue of services, contracting copayment levels, and AUGE coverage with legally defined copayments and a ceiling, which usually provides greater financial protection (Sojo 2011). Private commercial insurers provide collective (employer paid) or individual complementary insurance to reimburse medical payments, outside the social health

insurance system and regulated by another entity, covering about 7% of people (Superintendencia de Seguros y Valores) (Tobar et al. 2012; Bitrán 2013). ISAPREs have the freedom to risk select and to preclude coverage of pre-existing health conditions. Private insurance thus concentrates on men, higher-income, younger and healthier individuals, who live in urban areas (Gilbert 2012; Pardo and Schott 2014). Exclusion of pre-existing conditions means that once people in the private system are diagnosed with a chronic condition, they are captive in their particular ISAPRE and only have the option to switch to FONASA (Pardo and Schott 2014). A recently established presidential commission is studying reform of this private system to align it with social insurance principles, with implications for the wider health system (MINSAL 2014b).

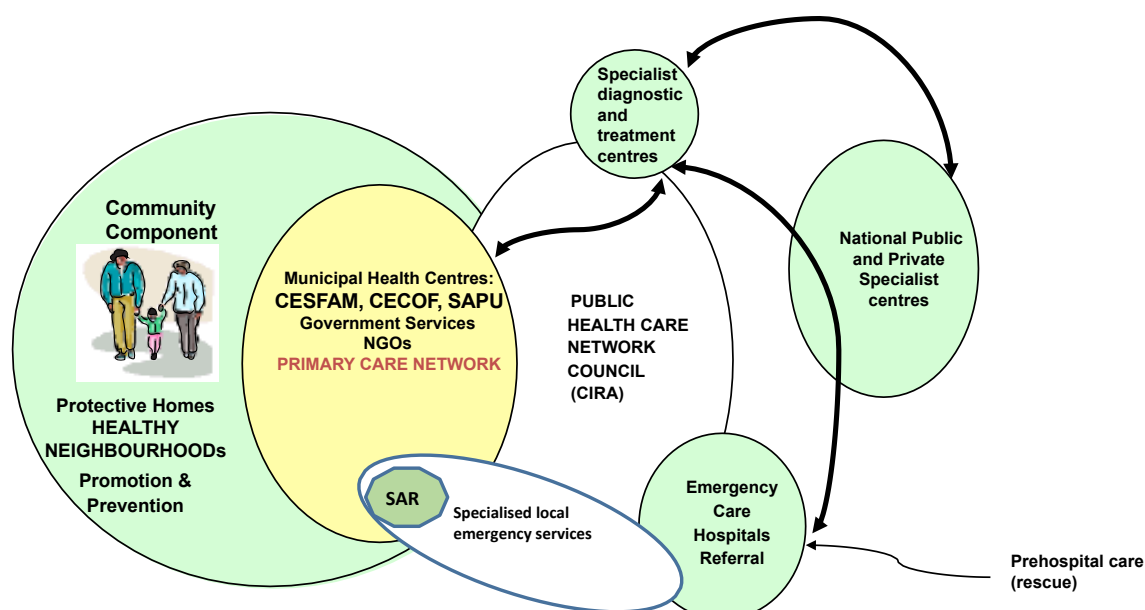
FONASA currently covers more than 75% of the population, mainly the indigent, lower-income workers, older and ill people (Bitrán 2013). In the poorest regions of the country, however, more than 90% of the population is in FONASA, whereas in Antofagasta, a mining region with the largest percentage of the population in the richest national income quintile (27%), only 70% are covered by FONASA and its enrolment in ISAPREs (26%) is the highest nationally (Ministerio de Desarrollo Social 2012). In 2011 only 2.6% of the Chilean population was not enrolled, reporting that they do not belong to any health system, while 7.8% of independent workers failed to enrol, still a decline on estimates in 2000 of 27.4% (Frenz et al. 2013a). This drop is consistent with measures to ease administrative procedures, implemented by FONASA and the pension reform. The Armed Forces and the Police have their own publically

financed health system (see *Figure 2*), which in general provides better coverage than FONASA and AUGE (Bitrán 2013). In addition, a separate employer-financed social insurance for work accidents and occupational disease exists, Law 16.744.

Healthcare provision in the public system

FONASA provides access to healthcare services in its institutional modality (MAI) through the National System of Health Services (Sistema Nacional de Servicios de Salud, SNSS), a decentralised public healthcare provider network covering the entire country, composed of 29 autonomous Health Services, coordinated by the Ministry of Health's Undersecretary of Healthcare Networks (*Subsecretaría de Redes Asistenciales*). Each Health Service (*Servicio de Salud*) coordinates a territorial network of PC centres, mainly administered by municipal governments and public hospitals to deliver integral family and community healthcare to FONASA affiliates residing in its area (see *Figure 3*). ISAPRE users may also purchase these services. The PC centre is the main entry point to the public healthcare network (the other entry point is hospital emergency services). The multiprofessional PC team should resolve most healthcare demands (90% target for the most advanced type of PC centre, CESFAM). Its formal gatekeeping role makes the team responsible for referral and counter-referral processes for specialist and hospital services and ensures continuity of care (Subsecretaría de Redes Asistenciales 2013b). Almost a third (30%) of the SNSS operational budget is spent at the PC level (Zuleta 2013).

Figure 3: Integral public, family and community healthcare network



FONASA affiliates register in a PC centre where they live or work. People cannot switch PC registration before a year has passed, unless they document the change in domicile or workplace (Subsecretaría de Redes Asistenciales 2013b). Coverage for individuals without financial resources is guaranteed by FONASA, which classifies affiliates by income into groups A, B, C and D to determine gratuity and copayment levels (see *Appendix A8*). About one-third are classified as indigent or Group A, including individuals without income or employment, or who receive public subsidies or government disability pensions. When individuals and family groups register in a public PC centre, they apply for Group A status. Administrative measures including a link to the Internal Revenue Service records (*Servicio de Impuestos Internos*) to permit detection of 'false indigents', usually independent workers who are not making social security contributions (MINSAL 2006; Bitrán 2013). The size of the FONASA A group varies by region from 38% in Araucanía to 13% in Antofagasta, in accordance with poverty levels (Matute 2012).

Publically funded PC is free in Chile, independent of administration (municipal, Health Service or private/NGO under a service contract) (Subsecretaría de Redes Asistenciales 2013b; MINSAL 1995). There is no evidence of informal charges in the literature or anecdotally. FONASA groups A and B and people 60 years or older do not pay for specialist and complex care in public hospitals and centres, but there are often waiting lists. For secondary and tertiary care, groups C and D have copayments of 10% and 20%, respectively. Groups B, C and D and Group A pensioners (65 and older) also have access to private providers through purchase of 'free choice' modality (MLE) vouchers, which cover 50% of the cost of a specialist visit or exam, and much less for hospital care (MINSAL 2006; FONASA 2014).

In the private sector, healthcare delivery is fragmented, focused on curative mainly secondary and tertiary care with direct access to specialists and cultivating highly personalised doctor-patient relationships. In maternal care, this has fostered attention by obstetricians instead of midwives (who provide prenatal and postnatal preventive controls in public PC), probably contributing to the extraordinarily high rate of caesarean deliveries in Chile (37.7%, the third highest in the OECD in 2013) and extensive use of FONASA MLE for births (Murray and Elston 2005; OECD 2014b). There is some evidence, based on National Health Survey data, that effective coverage of hypertension is better in the FONASA population (18%) than ISAPRE (13%). This difference is explained because public PC users are more likely to have their blood pressure taken, a basic procedure often omitted in specialist consultations (Aguilera et al. 2014).

Most of the population aspires to private medical care as the ideal despite availability of free PC care, according to one KI working in a lower-middle to middle-income municipality in the Santiago Metropolitan area. They attribute this preference to lack of understanding and appreciation of the preventive PC model and overestimation of technological advantages, aggravated by commercialisation and advertising by private clinics.

The percentage of FONASA A adults who said they had paid for their last general medical visit increased between 2000 and 2011, meaning that they paid for a private consultation or somehow obtained a MLE voucher (not available for this group before 2013) (Frenz et al. 2013b). In 2011, 4.2% of people said they did not pay for a medical visit for lack of money, although the share was higher in 2006 (11.7%) (Ortiz and Pérez 2014). Another KI identified PC barriers that explained use of private care, describing his own situation of dual practice:

I have a private office and the majority of patients are FONASA, the same people with the same resources, and they come because they have a problem getting medical appointments in the PC centre (CESFAM) nearby or because the doctors are foreign and they can't understand them (KI: PC provider).

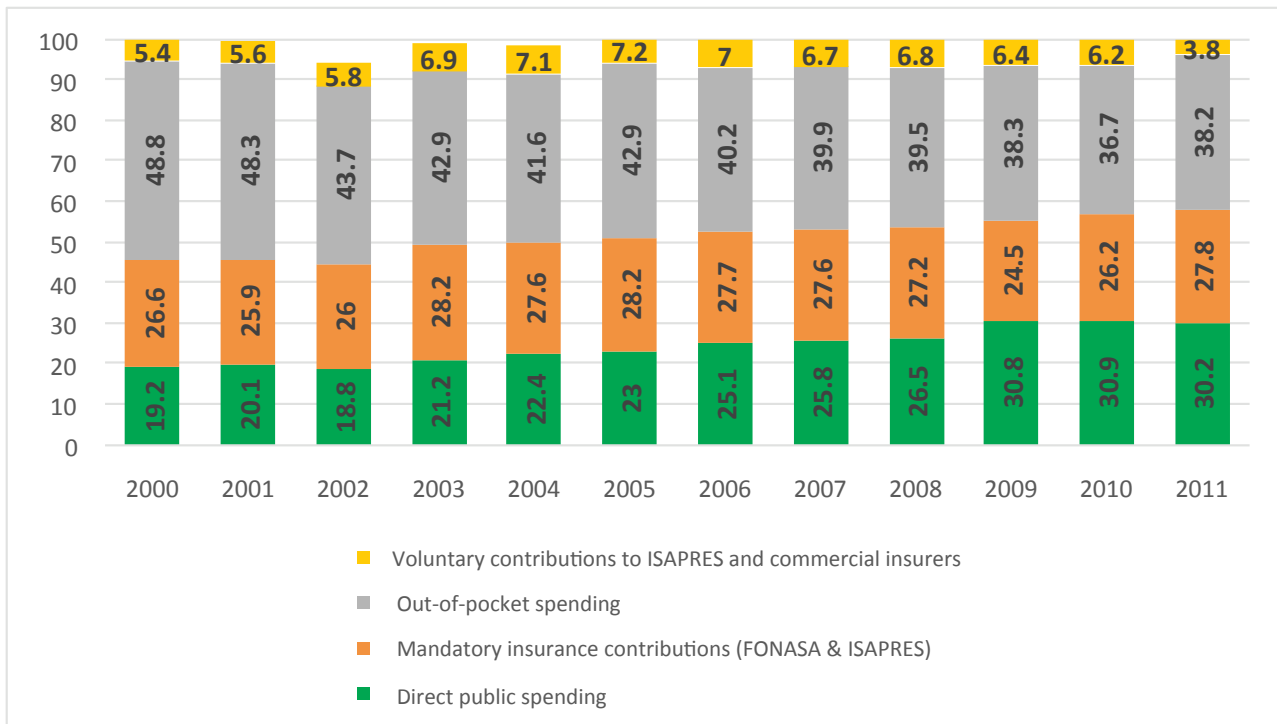
The preference for private care relates to perceptions of quality, personalised patient-doctor relationships, and timeliness (MINSAL 2009a; Programa de las Naciones Unidas para el Desarrollo 2009). In a 2011 survey about exercise of the right to health, 85% of respondents agreed with the statement that in Chile the quality of healthcare depends on the capacity to pay (Instituto Nacional de Derechos Humanos 2011).

Health spending and provider payment mechanisms

In 2011, total health spending in Chile accounted for 7.5% of GDP, lower than the OECD average of 9.4% in OECD countries. At \$1,568, Chile also ranks below the OECD average for total per capita health spending of \$3,322. Yet, in real terms, health spending in Chile increased at a faster rate, 8.3% per year on average between 2000 and 2011 (OECD 2013b).

Public financing from the central government and municipalities (30.2%) and mandatory payroll insurance contributions (27.8%) comprised 58% of total spending in 2011 (*Figure 4* overleaf). However, households continue to bear a high proportion of out-of-pocket payments (38.2%), whose most important component is spending on medicine (30-55%), particularly for lower income groups (Cid and Prieto 2012).

Figure 4: Health financing structure in Chile 2000 – 2011 (percent by source)



Source: © Bitrán (2013), citing Fonasa data from 2012:11, with permission from the author.

Between 2000 and 2011 the proportion of tax-based, direct public spending grew from 19.2% to 30.2%, and the share of out-of-pocket spending (OOP) fell by a similar percentage. Mandatory insurance contributions remained stable but there was a large drop in the relative proportion of voluntary contributions to ISAPRES and commercial insurers between 2010 and 2011. This was attributable to a 2010 court decision eliminating the age- and sex-based premium table as discriminatory and unconstitutional (Zúñiga 2013).

FONASA does not pay each public provider directly, but through the 29 Health Services (*Servicios de Salud*). Each Health Service pools the funds transferred by FONASA and determines budgets for hospitals in its territory. Of the allocations to public hospitals, part are on a fee-for-service basis, generally pertaining to complex services or groups of services for which a fixed tariff is assigned (*Prestaciones valoradas*). However, the bulk of hospital transfers comes from prospective historical budgets - generally undervalued - to cover costs of other services, salaries and maintenance.

When capacity in public services is insufficient, FONASA may purchase services from private providers through contracts. It can spend up to 10% of its budget in this way by law, reaching 8% by 2013. ISAPRES pay private providers using fee-for-service mechanisms, according to agreed tariffs. Payments tend to reflect cause of admission, in Diagnostic Related Groups (DRGs) in preferred provider networks for catastrophic coverage and in AUGE (Bitrán 2013).

PC per capita and programme financing. Health Services also receive and transfer municipal PC budgets, based on capitation (70%), special PC reinforcement programme (*Programa de Reforzamiento*) allocations (23%) and personnel incentives (8%) (Subsecretaría de Redes Asistenciales 2013b; Zuleta 2013).

The *prospective capitation rate* allocated by the Ministry of Health for each registered FONASA beneficiary in the assigned territory is meant to cover the full cost of labour, drugs, supplies and administrative expenses of the Family Health Plan and PC AUGE guarantees. The *base capitation rate* set for 2014 is approximately \$81 per person per year (more than doubling since 2005) (Molina 2014; Zuleta 2013). The base capitation is adjusted upwards, according to factors related to rural population, deprivation level and geographic zone. Additionally, a fixed amount is added according to the percentage of the population over 65 years and for difficult duty due to geographic or sociocultural challenges. If all of the adjustments apply (the case of one municipality in 2012 and 2013) the total per capita increases by 68% (see *Appendix A9* for details). In 48 municipalities (15%) with small populations (under 3,500) a fixed cost capitation is used instead (Subsecretaría de Redes Asistenciales 2013b).

The PC ‘reforzamiento’ programmes are prospective budget transfers based on projected activities aimed at increasing PC capacity to resolve AUGE problems and other priorities, including a new National Medicine Fund, transfers for public health goods and Chile Crece Contigo. With this budget

added, the per capita PC reaches approximately \$115 (with adjustments of up to about \$170) annually (Orrego et al. 2014). Municipalities also contribute additional financing to varying degrees, averaging about 20% of the total municipal PC budget, according to data from the Chilean Association of Municipalities (*Asociación Chilena de Municipios, ACHM*) (Montero et al. 2008).

Despite substantial and sustained increases, the per capita amount does not reflect the true cost of PC, particularly to comply with guarantees, and adjustments are insufficient to equitably distribute resources by needs. For example, the percentage of FONASA A affiliates is a better predictor of population needs related to poverty than the current factor (Kuhn Barrientos and Castillo Riquelme 2013; Goyenechea and Bass 2013; Raña et al. 2007; Montero et al. 2008; Castro Aplabaza et al. 2006).

The tension between activity-based hospital financing and capitation in PC raises various challenges to improve equity, provide continuity of care, increase efficiency, and meet health objectives. In particular, reforms are deemed necessary to align the entire healthcare system around prevention goals, better integrating PC and hospital care in the public sector (Castro Aplabaza et al. 2006; Goyenechea and Bass 2013).

Regulation of health markets and health technology assessment

To prevent vertical integration, ISAPREs are not allowed to own health providers, but consortiums that also own clinics own the largest ISAPREs. With criticism of this situation there is a bill before the Senate to close this loophole (Senado 2013). In 2005, as part of health reform, the Superintendent of ISAPRES became the Superintendent of Health, responsible for supervising and controlling insurers, including FONASA, and public and private health providers.

A system of certification of facilities and providers has been in development since 2005, to comply with the AUGE guarantee of quality (Tobar et al. 2012). The Superintendencia de Seguros y Valores regulates private commercial insurers outside the social health insurance system (Tobar et al. 2012; Bitrán 2013).

Implementation of AUGE's legal requirements have motivated more evidence-based decision making. Clinical practice guidelines, a component of the quality guarantee, have been developed for each of the 80 AUGE conditions, based on systematic reviews, with the collaboration of experts to orient clinical decisions and standardise care, considering adequate flexibility (MINSAL 2014c).

The Ministry of Health established its Health Technology Assessment Unit (ETESA) in 1997. It is currently part of the Department of Quality and Patient Safety and aims to generate evidence-based assessment reports, technical guidelines, and recommendations for the Ministry of Health and the healthcare network. The small professional team works in conjunction with a National Ministerial Commission on Evaluation of Health Technologies and national expert working groups and is linked with international networks and organisations. Recently, the Commission published a proposal to develop and strengthen the health technology assessment structure and procedures in Chile (Comisión ETESA 2013). Pharmacy regulations set prescribing practices regarding generic medicine and Ministry of Health stewardship in defining the list of essential medicines and insuring equitable access to medicines in PC (MINSAL 2014d).

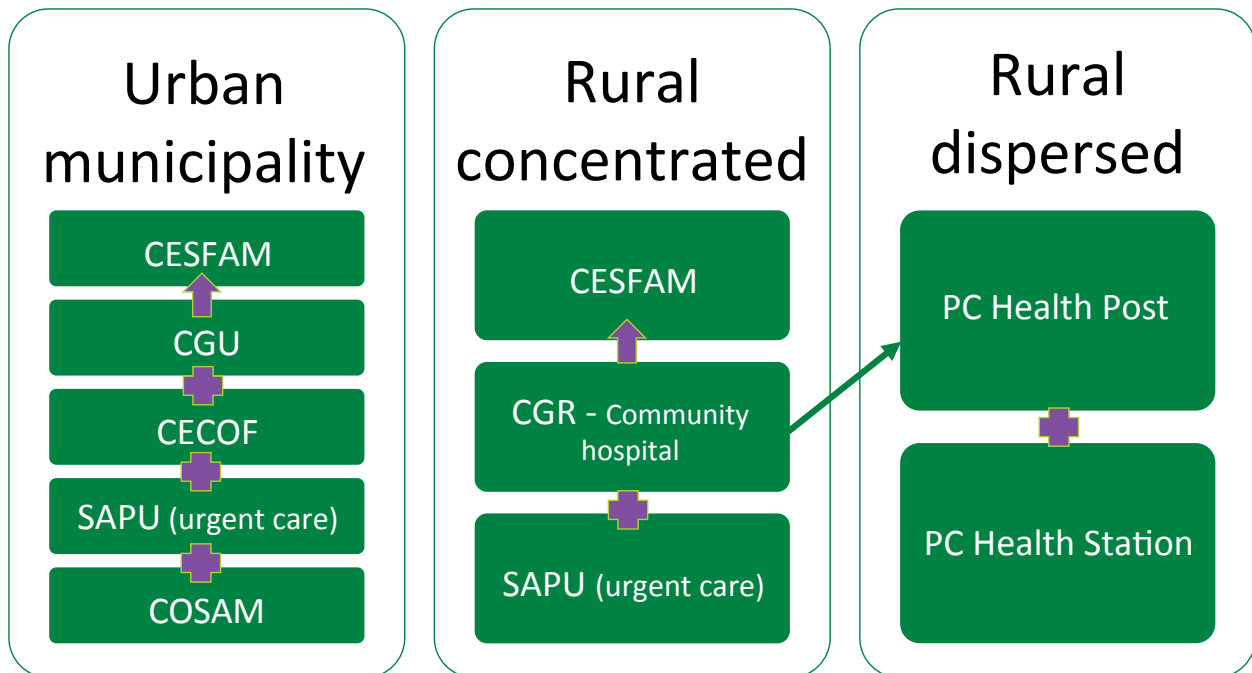
3.2 Primary care service delivery

The public PC system (*Atención Primaria de Salud, APS*) covers most of the approximately 12 million people affiliated with FONASA (Iñiguez 2013). Public PC facilities in Chile include a variety of establishments: Family Health Centres (CESFAM), the most advanced type, and more basic General Urban Centres (GCU), which should transition towards CESFAM; and PC urgent care services (SAPU) in urban municipalities.

New specialised urgent care facilities with imaging and other capacities (*SAPU de Alta Resolución, SAR*), interfacing with hospital emergency departments are also planned. Some CESFAM have satellite Community Health Centres (CECOF). Specialised Community Mental Health Centres (COSAM) serve populations from several PC facilities in larger urban municipalities. Concentrated rural areas may have a CESFAM or a General Rural Centre (CCGR) or a PC community hospital, as well as a SAPU. In dispersed rural municipalities, health posts and stations provide PC. (See *Figure 5* overleaf and descriptions of facilities in *Appendix A10*). Currently about 64% of FONASA affiliates have access to a CESFAM facility.

Health Services and the Ministry of Health support PC facilities to transition to CESFAM, since the intention is that all FONASA beneficiaries will have access to the full MSF, irrespective of economic, geographic or cultural limitations. CESFAM certification is an incremental process (see *Appendix A11*), which provides an objective measure of capacity and development at intermediate, advanced intermediate and advanced CESFAM levels (MINSAL 2009b).

Figure 5: Types of public PC facilities



Source: Authors.

Support is tailored to each PC facility's different needs. Some KIs consider that the goal is more aspiration than reality:

We have three certified Family Health Centres, but I can say with certainty that we do not work in the family health model...We are still competing with other models, so when we do something, we are proud of it and say, "Hey look at what we are doing", but testimonial is very limited (KI: provider).

Before the 1980s, the Chilean National Health Service (Servicio Nacional de Salud, SNS) centrally managed PC facilities. In the context of structural reform, the military regime transferred responsibility for PC to municipal governments, but some facilities continue to be administered by Health Services and a small number are run by universities or NGOs (Gideon 2001). There is really no model for PC service delivery in the private health sector for ISAPRE beneficiaries (Bitrán 2013; Murray and Elston 2005). One notable exception is the private university health network of the Pontificia Universidad Católica de Chile (PUC), which developed a family health model in a PC centre financed in agreement with two ISAPREs (Téllez and Aguayo 2008). They have played a pivotal part in development of the family care model (Montero et al. 2010; Püschel et al. 2013; see *Section 3.5* and *Appendix A11*).

A renewed emphasis on PC during the 1990s led to enactment of the PC Health Law (*Estatuto de Atención Primaria*, EAP), Law 19.378 in 1995, the principal regulatory and administrative framework for municipal PC under the

stewardship of the Ministry of Health (*Appendix A3*). The EAP establishes workforce labour regulations, service career, municipal administration, coordination with the healthcare network, and a new model of resource allocation based on capitation, financing rationalisation, and a remunerations system with elements related to performance (Ministerio de Salud 1995). Concurrently, SAPU urgent care services were created, mainly in urban municipalities, as part of a strategy to expand access to care outside regular hours and improve timeliness of medical care, while reducing transportation burdens and bottlenecks in hospital emergency services (División de Municipalidades 2008).

Simultaneously, policy efforts were directed to transforming PC facilities into more complete primary health centres, evolving after 2005 towards Family Health Centres (**CESFAM**, *Centro de Salud Familiar*), developing a more comprehensive biopsychosocial PC model of family and community health (Depaux et al. 2008; Salgado 2012). A decade later the public PC practice model is still in transition. In a biomedical model, the team provides selective PC and is primarily the first contact and main entry point to the rest of the healthcare network. A biopsychosocial model is now being developed, where the PC team is the core of the healthcare network, capable of addressing 90% of health problems in its territory. It works collaboratively with families, the community and intersectoral actors in coordination with the rest of the healthcare system to ensure integral, continuous care. The *Integral Family and Community Health Model* with a biopsychosocial

approach (*Modelo de Atención Integral de Salud Familiar y Comunitaria*, hereafter MSF) is defined as:

... the set of actions that promotes and facilitates timely, efficient and effective care, directed beyond the individual and disease as isolated events to consider peoples' mental and physical health integrally, as social beings, and a model of relation of ... the health team with individuals, their families, and communities in a specific territory, that places people at the centre of decision making, recognising that they are part of a diverse and complex sociocultural system... and considering social preferences and social participation in all of its endeavours, including intersectoral work (Subsecretaría de Redes Asistenciales 2013b).

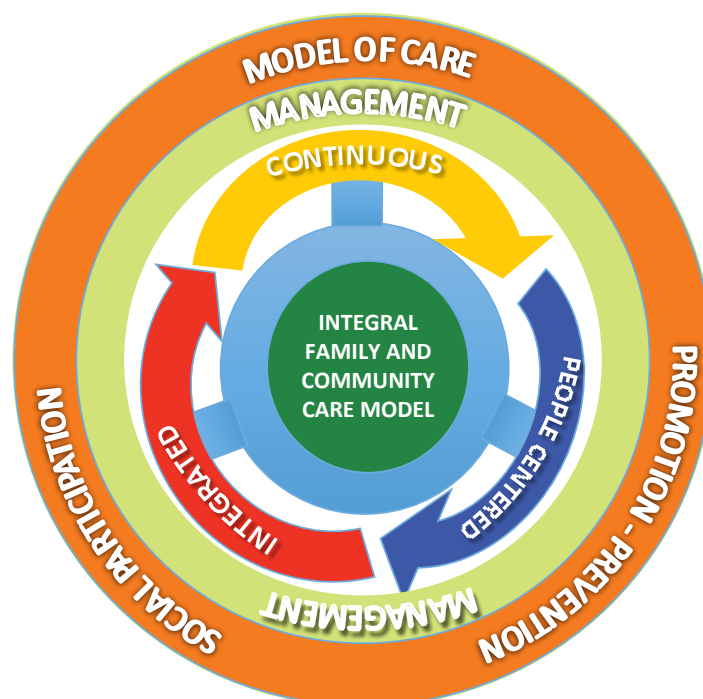
The definition reflects the intent of the Family Health Plan to provide: *integral, timely, high quality and effective (resolutivo) care with continuity throughout the entire provider network* (see Appendix A6). The word *resolutivo* in Spanish means 'able to resolve', in this case, health problems. The Chilean public PC uses the term frequently as a family health centre should be able to resolve more than 90% of health problems, and refer less than 10% to specialist levels (MINSAL 2009b). It also emphasises person-centred, community and intersectoral collective action oriented towards health and wellbeing (see Figure 6) (Subsecretaría de Redes Asistenciales 2013b). These definitions are part of the technical standards established by the Ministry of Health

for orienting planning and programming and providing other norms for municipal PC, developed in accordance with the EAP.

To receive financing, municipal health administrations must develop an annual municipal health plan in alignment with national standards, negotiating local goals with the Health Service, which has approval power. The plans are public and available online. A review of the plans suggests that in theory PC is at the core of an integral healthcare network plan and the main entry to the health system. The municipal plan should incorporate elements that reflect local context and priorities, integrating the views of the community, usually through consultations with Local Health Councils and organised groups (Subsecretaría de Redes Asistenciales 2013b).

The plans include local demographic, epidemiological profiles and social determinants of health. They describe programme activities included in the MSF family health plan. They specify the size of the workforce and its composition and, therefore, adapted for local context (Dirección de Salud Peñalolén 2014; Dirección de Salud San Joaquín 2014; Departamento de Salud Santa Bárbara 2014). Plans identify critical areas for action by including a problem analysis of difficulties in achieving the previous year's goals. More broadly, however, these plans also illustrate that curative medical care, and increasingly SAPU urgent care, are still the principal focus of PC, not health prevention, promotion and intersectoral action. KI

Figure 6: Principles of the MSF Integral Family and Community Health Model



Box 4: Annual workforce training programmes

According to the EAP, municipal PC administrations must develop annual training programmes for PC personnel, comprising ongoing, systematic activities to complement, refine and update knowledge and skills required to perform their duties efficiently and effectively. The programme should be developed with workforce participation, merging the administration's training needs and policies with the health teams' and community's perspectives. For example, in 2010 the town of Coronel, located in the Biobío Region in Southern Chile with a population of around 95,000, developed a training programme that included the following activities: national and international internships and courses on the legal framework of municipal PC, bringing laboratories to the community, AUGE conditions and services, sexual dysfunction in couples, managing PC pharmacies, disease screening in PC, prevention of upper limb and spine problems, self-care techniques, and diagnosis and treatment of personality disorders in PC (Dirección de Salud Municipalidad de Coronel 2010).

emphasised the need to strengthen the planning and control processes at municipal and Health Service levels, as well as Ministry supervision.

There is consensus that the MSF demands new capacities and ways of working, highlighting the importance of training programmes (see *Box 4*) and processes to introduce and sustain change. As identified in *Section 3.1*, the new model requires additional resources for additional PC personnel if they are to undertake health promotion and education to meet the expected demand and to continue to provide existing services (KI: health manager).

Findings from an online survey answered by approximately 50% of municipal health directors also suggest that implementation of the family health model has been average at best, consisting mainly of efforts to strengthen health team/population interaction and measures to improve continuity of care. Just 55% of respondents said that family health assessment tools were regularly used in implementing the biopsychosocial model, while 53.9% reported that families were usually included in interventions with chronic patients. This confirms gaps and differences in the model's development (Mansilla 2013).

As mentioned, KIs consider the AUGE's disease-focused, mainly curative guarantees, have strained PC capacities, competing with the family health model. The SAPU urgent care model, focuses on addressing excess demand with same-day care, and has expanded access, especially for working people. However, this attention is brief and usually given without consulting the family health record and without continuity of care, thus disrupting the MSF (Ministerio de Salud and Universidad de Chile 2005). KIs also identified local strategies to counter these problems, such as combining family health strategies within AUGE, putting family teams in charge of guarantees affecting their population sectors instead of designating separate programme heads for each condition, including nurses or nursing students (through on-site training agreements with local universities) to strengthen follow-up of chronic patients and increasing electronic records.

At present the public PC network comprises approximately 2,286 facilities, 91% under municipal administration, 8.3% managed directly by Health Services and 1.1% (around 18 facilities) run by universities and non-profit organisations (see *Appendix A16*) (Departamento de Estadística e Información de Salud. Ministerio de Salud 2014). This extensive PC network, built over decades and reaching every part of the country, is a key feature of the PC system in Chile: *People in every municipality, in every neighbourhood, know where the (PC) centre is and where the SAPU is too* (KI: central policy level).

Adding complementary types of PC facilities is a government priority and a mechanism for strengthening the PC network. For example, satellite Community Family Health Centres (CECOF), responsible for 3,500-5,000 people and linked to a base CESFAM or general PC urban centre (CGU), were introduced in the last decade to enhance prevention and health promotion activities and, more generally, increase access (MINSAL 2008). KIs note that the pressure to provide curative services, often prioritised by the community in public consultations, has transformed CECOF into medical care facilities in many localities. From 2014-2018, the government plans to build 100 new CESFAM, 30 in 2014 alone, to reach a standard of one per 30,000 people, together with 100 CECOF (Molina 2014).

The Ministry of Finance favours urgent care services as a performance indicator for the Undersecretary of Healthcare Networks (Dirección de Presupuesto 2014). The government proposes to build and implement 132 new specialised, local urgent care centres (SAR) with better technological capacity, including X-rays and other exams in 106 municipalities, as a nexus between PC and the hospital network, safeguarding continuity of urgent care (Molina 2014; Bachelet 2014). Locations of these facilities were finalised in the first 100 days of the new administration and technical orientations are in development (Yáñez 2014).

Community-based Family Mental Community Health Centres (COSAM) provide an outpatient mental health facility for areas with around 50,000 inhabitants, composed

Box 5: Depression and the PC mental health programme

Scaling-up mental health coverage by incorporating mental health professionals in PC has been called Chile's ongoing revolution (Araya et al. 2009). The Ministry of Health's mental health policy attempts to bridge the biopsychosocial model and AUGE guarantees, contemplating intersectoral preventive action in schools, workplaces, and communities (Minoletti and Zaccaria 2005). Yet, the literature focuses on clinical results, such as the significant expansion of coverage for depression treatment between 2005 and 2008 (Bitrán et al. 2010), suggesting, as KIs have emphasised, that attending clinical demands has deviated from promotion. One evaluation showed a statistically significant reduction in the Beck Depression Inventory (BDI) comparing controls and treatment groups, emphasising the need to improve training and support from COSAMs and measures to improve adherence to controls, since family health teams were not always correctly diagnosing the severity and appropriate treatment (Alvarado and Rojas 2011). Other evaluations have focused on cost-effectiveness of depression treatment in PC (Siskind et al. 2010; Rojas et al. 2007).

of teams of psychiatrists, psychologists and occupational therapists for mental health patients who require more specialised care. COSAMs support PC centres in implementing the mental health and psychiatric component of the family health plan (see *Box 5*). They provide outpatient care, including mental health promotion, prevention, treatment and rehabilitation to patients referred by the PC centres and training for the PC teams.

Integration with secondary and tertiary care

A critical feature of PC is the capacity of the director and the health teams to coordinate with other centres in the PC and wider healthcare networks to improve continuity of care and to follow-up on referrals (División de Municipalidades 2008). The biopsychosocial model links PC facilities with secondary and tertiary centres to form an integrated family and community health network, facilitated by a network integration council (*Consejo de Integración de la Red Asistencia, CIRAI*) established by law in 2004 and headed by the Director of the Health Service (see *Figure 3* on page 11).

The CIRAI are consultative bodies headed by the Director of the Health Service and include directors of PC and hospital centres, community representatives and workers. Its function is to foster dialogue, cooperation and learning. A CESFAM should have a team managing the waiting list to coordinate referrals to other levels (gatekeeping), reviewing counter-referrals, evaluating compliance with AUGE guidelines and detecting gaps in team knowledge and capacities (MINSAL 2014c).

These management teams work with staff and other network institutions to resolve problems through training, consultations with specialists and the elaboration and implementation of reference protocols, validated by the CIRAI in each Health Service (Subsecretaría de Redes Asistenciales 2013b). A recent evaluation of the 29 CIRAI concludes that their governance role needs to be expanded to include strategic topics such as decisions on investments in

infrastructure, technology, human resources and budgeting (Artaza-Barrios et al. 2013).

Health Service directors also have salary incentives related to strengthening PC capacity and implementing the MSF in territorial networks: *In 2009 we were able to include goals in the Civil Service performance agreements for Health Service directors so that they would be concerned about PC because it is 25% of the salary. So that it would hurt their pocket* (KI: central policy level).

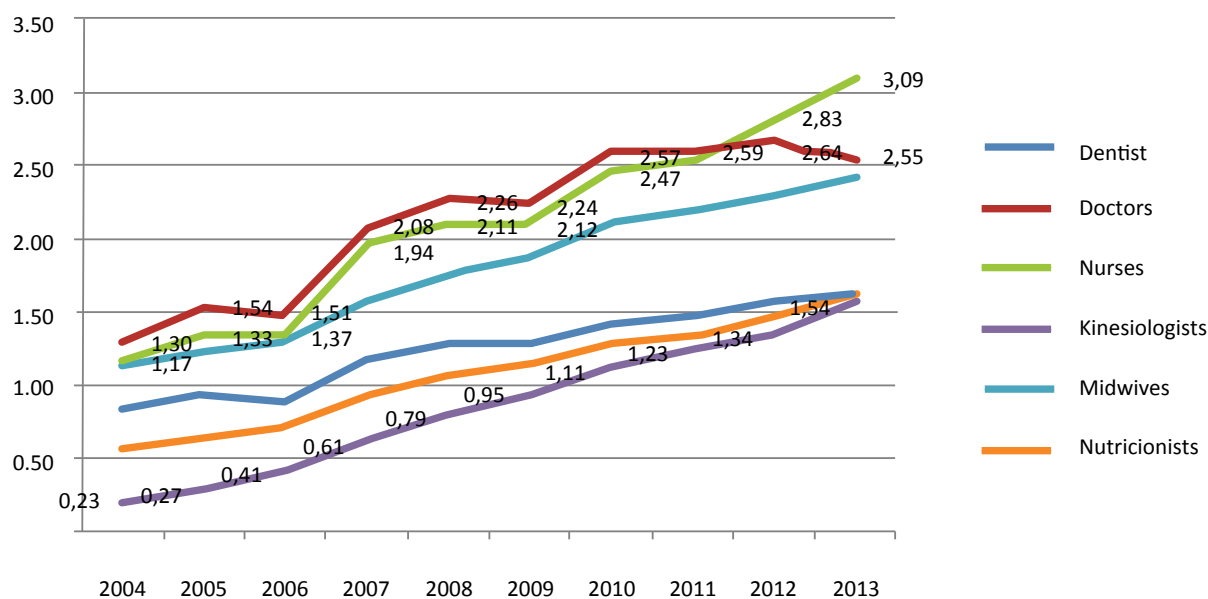
Although some KIs affirmed that coordination with other levels has improved, for most it is a critical area. Other findings support this: on average PC health directors evaluated network coordination with a score of 5.49 out of a maximum of 7, with 48% of respondents reporting scores between 5-6 and 27.7% between 4-5 (Mansilla 2013).

Workforce type and provider teams

Workforce wages, training programmes and career service are regulated by the Primary Care Law, EAP, which recognises the following different categories of workers:

- (i) physicians, pharmacists, and dentists;
- (ii) nurses, midwives, physiotherapists (termed kinesiologists) and other professionals;
- (iii) health technicians;
- (iv) administrative and
- (v) auxiliary personnel (MINSAL 1995).

Workforce density in all of these categories has increased over time (*Figure 7* overleaf), except for a slight decline in doctors reported from 2012-2013. The latter reflects the general lack of interest of the medical profession in public PC careers (Martínez 2010), preferring more remunerative and prestigious private sector opportunities, which have expanded in part due to recent policies stimulating purchasing rather than strengthening public capacity and productivity.

Figure 7. Evolution of PC workforce densities 2004 – 2013 (10,000 inhabitants)

Source: Reproduced from Iñiguez 2013 under public domain open license

The latest available data from 2013 reports a total municipal workforce of 54,652 personnel, of whom 70% are direct providers (Iñiguez 2013), an increase of 130% from 22,368 in 2004 (Orrego et al. 2014). Other studies show an increase of 46% from 2003 and 2007, equivalent to 10,295 work days (44 hours/week): physicians increased 142%, dentists 95%, nurses 102%, midwives 65%, nutritionists 83%, physiotherapists 244%, social workers 104% and psychologists 344% (Subsecretaría de Redes Asistenciales nd). For municipal PC the average increase in physicians between 2004 and 2008 was 104% (1,134 to 2,310), while the overall growth in Health Services network (PC and hospitals) was 18% (7,514 to 8,866) (Rojas et al. 2011).

Incentives to attract and retain workforce. The EAP and other related norms establish the remuneration and career service, including skills development training programmes, contributing to the growth and retention of the PC workforce, particularly non-medical professionals, paramedics and technicians for whom good wages, job stability, and career development are strong motivations. Salary levels (15 for each category of worker described above) are based on experience and training and wage increases for each level are defined by each municipality (Ramírez Chávez 2012). Additional salary increases or bonuses are offered for professions in marginal geographic or sociocultural areas. Table 1 shows the average workforce densities nationally.

Table 1: PC Workforce densities, FONASA beneficiaries (/10 000)

Workforce /10 000 beneficiaries	Medical	Dentist	Nurse	Midwife	Nutritionist	Kinesiologist (Physiotherapist)	Para-med
National average	3.42	2.06	4.14	3.40	2.06	2.06	13.88
Metropolitan North Health Service in Santiago	3.14	1.57	2.21	1.64	0.19	2.02	11.80

Source: Barrientos and Larrea 2013; Iñiguez 2013.

The Metropolitan North Health Service in Santiago covers 29% of the city's population and has an older, poor population with a large proportion of female headed households (40%). One KI stresses that multi-professional PC teams are one of the key features of PC practice in Chile:

... Here it is really a tradition, a result of our history. It's impressive that payrolls in all PC centres - in La Legua, La Pintana, Pudahuel (low-income municipalities in the Santiago Metropolitan Region) - include psychologists, social workers, doctors, nurses, and kinesiologists (KI: academia).

Medical deficits and incentives to attract doctors to PC

Despite the diversification and multidisciplinary nature of PC teams, engaging physicians in PC is increasingly difficult: a recurring critical aspect for strengthening PC, cited in the literature and by KI (Orrego et al. 2014; Bass and Ruiz 2010):

So the health team is more integral, but the big shortcoming is that doctors move around so much... In the end, rotation of physicians means that power is transferred to other professions. More and more midwives, nurses and social workers are directing primary care processes and doctors are not empowered in primary care....When I arrived, the doctors were the workers of primary medicine, who spent all day just seeing patients (KI: health manager).

Of the respondents to the National Health Survey 2009-2010 who had received treatment in public PC (82%), 19.2% were attended by the same doctor from a previous consultation, and 14% said they had a lead doctor in the PC team ('médico de cabecera') (MINSAL 2010a). In 2008, of the total of physicians working in the public sector (44%), 9% were in PC (Banco Mundial and Subsecretaría de Redes Asistenciales 2010). High turnover was highlighted in a 2002 study (Ipinza 2004) and twelve years later the situation is unchanged: 70% of PC doctors working less than three years, estimating a deficit of 1,364 medical professionals, 38% (personal communication from Dr. Nicolás Silva, investigator). Only 629 family medicine specialists are certified in Chile, representing 2.5% of the total number of registered specialists (Superintendencia de Salud 2013a) and only 41.5% of family health specialists work in municipal PC, with 19% in public Health Services and the remaining 42% in the private sector (Iñiguez 2013). Nor are family medicine residencies sought after, as manifested by low fill rates (10.3% between 2001-2007) (Peña et al. 2010; Martínez 2010). The lack of interest of Chilean professionals means that approximately 35-41% of PC doctors are foreign nationals, mainly from Ecuador, Cuba and Colombia, whose medical training is geared towards other contexts (Bass and Ruiz 2010). According to KIs, municipalities compete to attract doctors, particularly in large cities with private care options, and in some more marginal localities the shortage is critical.

One of the first measures by the current government was to attract family medicine specialists with major salary increases and to accelerate training of new PC specialists at a rate of 125 per year, for a total of 500 during the four year administration (Molina 2014; Yáñez 2014). According to a central policy KI, municipalities have already contracted 87 family specialists. Doctors are, however, not only driven by economic incentives but also professional development

and prestige, usually achieved through specialisation (Armas Merino 2008; Martínez 2010). The National Group of Primary Care Doctors proposed a series of policy measures to improve working conditions, quality of care, and professional development, including more time for morbidity consultations (at least 15 minutes), programmed time for prevention and promotion activities, and more advanced training opportunities, such as specialist residencies, together with salary increases and greater job stability (Bass and Ruiz 2010). Also medical training is mainly hospital based and only 40% of medical schools have PC residency programmes (Püschel et al. 2014). In terms of more robust public policies to stimulate curricula change and PC training, one proposal is to condition public financing to universities on developing PC undergraduate and specialist training (Püschel et al. 2014). The other track to entice doctors to PC service, at least for a period, is through specialist training programme incentives.

The government also proposes to overcome deficits in the supply of doctors using a programme "Destination Cycle" (*Ciclo de Destinación*) (from 1955) offering paid residencies in university hospitals and attractive salaries in exchange for years of service. The programme is open to doctors and dentists, who after three to six years of service in public sector PC facilities, are eligible to compete for residencies, in a point-based system that assigns points for remote or socially difficult destinations and demonstrated community work, among other aspects (Pena et al. 2010). In 2007 a new specialist programme for PC doctors with three years in municipal PC facilities was established, together with a six-year programme to train basic specialists, including internists, paediatricians, gynec-obstetricians and psychiatrists, with three years in PC (Ramírez Chávez 2012). Between 2008-2013, eight medical faculties and 73 PC centres participated with 498 physicians in training by 2013; the first cohort will graduate in 2014 (Montoya-Aguilar et al. 2014). While bringing specialists to PC for a time seems necessary to attract doctors, it reinforces the idea that PC is a stepping stone and not a destination for some KIs. For others, it is a pragmatic way to align the PC culture and specialist culture.

It is not clear, however, if the economic incentive and greater social validation will be sufficient to reverse the trend. Nor is it clear what the role of family health specialists is in strengthening delivery of the biopsychosocial model, only that they should be involved in direct provision and not administrative work. Technical orientations for their role are in development (Yáñez 2014). While most KIs agree that more doctors are critical for strengthening PC, two (a municipal health director and a central policymaker) stated that transformation of the PC model towards prevention and health promotion requires task shifting and leveraging the potential of the multi-professional team, not a focus on

doctors. KIs have mixed opinions about the PC specialist-training programme. Some KIs think that incorporating residents supports PC teams, helping resolve more complex medical demands, and integrating with secondary level hospitals and outpatient specialist centres. However, other KIs felt that specialists in training are not invested in PC nor are they necessarily competent at addressing complex family and community health problems:

I always say it is much easier to learn to treat a heart attack. One learns to read an electro mechanically. But it is much harder to be able to handle the complex problems of family violence and sexual abuse that we deal with daily....PC is much more complex but many professionals don't believe this and just see PC as a path and not a place for professional development (KI: health manager).

Underlying these viewpoints appears to be an unresolved contradiction between the family health model anchored in family medicine specialists, a vision generally shared by the PC sector, and a more medically oriented, technological model, valued by the medical profession and society in general (KIs). The answer, according to several KIs, is not one or the other but the union of family and community health strategies with strong clinical management, incorporating adequate technology and procedures, which would meet the expectations of the population and provide opportunities for professional development, by integrating biomedical and psychosocial aspects of care with criteria of excellence.

Performance-based salary incentives related to national health objectives. Another feature of PC practice in Chile is the use of collective performance goals aligned with national health objectives, which translate into annual bonuses for PC personnel within a broader governmental framework of results-based planning and budgeting (MINSAL 2007a). Performance goals for each PC facility are negotiated with the Health Service, following Ministry of Health national standards. If the establishment meets 90% of its targets all PC workers, administrative and provider staff, receive an annual bonus consisting of a variable percentage of the base salary, divided into three payments. Currently the goals relate to: the percentage of children aged 12 to 23 months with psychomotor development risk recuperated; effective coverage of Pap smears in women 25-64 years; comprehensive dental coverage for children aged 6-12 years and pregnant women; effective coverage of diabetes and hypertension (anticipating the expected prevalence in the adult beneficiary population); reduction of the prevalence of obesity in children under-6 years under control; regular operation of the Local Health Council; and coverage of annual podiatry examination of diabetic adults under control (Subsecretaría de Redes Asistenciales 2013b). The pap

smear (cervical cancer screening) target is in response to the overall low rate of about 60% of women in the target group covered in 2011 (OECD 2013a) and regional differences, varying from 45.5% in Antofagasta and 72.2% in Los Rios in 2011 (Departamento de Estadísticas e Información de Salud, Ministerio de Salud 2010).

The **Primary Care Activity Index** (*Índice de Actividad de APS, IAAPS*) is the mechanism implemented by the Ministry of Health and used by Health Services and municipal PC to safeguard the proper use of prospective per capita allocations (División de Atención Primaria/ Subsecretaría de Redes Asistenciales 2014). IAAPS uses indicators selected from existing Family Health Plan targets and criteria, which include fulfilment of PC AUGÉ guarantees, emphasising family and community approaches or integration with the healthcare network. The Ministry of Health establishes a national reference goal for each indicator and local targets are negotiated with the Health Service, taking previous performance into account. Some examples of the indicators are coverage of preventive medicine exams in men 20-44 years and coverage of preventive medicine exams in women 45-64 years. Not meeting the targets results in partial rebates of the total capitation budget, scaled according to observed gaps in activities (MINSAL 2014a). The indicators are included in the regular health statistics system (*Resúmenes Estadísticos Mensuales, REM*). The Municipal National Information System (SINIM) reports a summary measure of the PC activity as the percentage of compliance. The national average has been variable, with levels ranging from a high of 99% in 2012, building from 73% in 2011, and dropping to 83% in 2013. Variations among municipalities, ranged in 2013 from 83% to 100% (Subsecretaría de Desarrollo Regional y Administrativo nd).

According to KIs, activity-based financing through programmes also entails cumbersome administrative procedures, aggravated by the number of programmes (over 40) each with separate reporting requirements. The Ministry of Health has identified a number of administrative bottlenecks in the programme administration process, such as delays in transfers and availability of resources, lack of reporting and poor knowledge of central government administrative processes and financial norms at the municipal level (Zuleta 2013). Tackling them through measures including transfer of programme financing to capitation, streamlining processes and increasing administrative support, including implementation of electronic records, is a current priority.

Central policy KIs emphasise the importance of results-based budgeting: *We have goals for everyone and tools. So we can pull the strings to re-adequate and perfect the system....It's not perfect but we are not a rich country. With our budget we do wonders* (KI: central policy level). Nevertheless,

local level KIs generally agree that performance focuses on coverage rather than outcomes and is skewed towards areas with goals, particularly when AUGE guarantees are involved, with sometimes questionable consequences: *Since GES (AUGE) has guarantees that result in a lower economic incentive for teams if they are not fulfilled, if you enter into a GES protocol, I will start to pursue you, go to your house, and call you. Because in the end they will lower my salary if you don't take care of yourself* (KI: academic).

There are also concerns about the credibility of performance reporting. For example, in one study of effectiveness of hypertension treatment across regions varied from 28% to 75%. In contrast, 2010 information reported by PC centres ranged from 54% to 77% (Mansilla et al. 2013). One key informant noted: *It is striking that if one year an indicator is one of the incentives, most of the centres reach the goal, and if it is taken out the next year, almost no one accomplishes it. It's very strange* (KI health manager).

Service content and organization

The specific services and benefits considered in the Family Health Plan focus on preventive and curative activities targeted for different age groups during the life course (childhood, adolescence, adulthood and older age) and the treatment and control of specific risk factors and diseases (see *Appendices A4, A5 and A7*). As noted, current PC practice is in transition towards an integral family and community health model with a biopsychosocial approach. Tools and instruments for working with families include:

- Family health records: Includes a general diagnosis of the family situation to plan interventions together with the family, based on a 'genogram' of the family group and a survey to identify needs, problems and biopsychosocial risk factors or protectors.
- Family counselling.
- Integral home visits: Evaluations in the home with family members to foster adequate environmental and relational conditions and facilitate problem solving (Moraga 2009).
- Epidemiological maps designed with families to provide a rapid assessment of needs within a PC sector, based on the distribution of relevant factors and characteristics.
- Family health team meetings to study clinical cases, assess family groups, evaluate local work plans and performance and generate recreational or social spaces to improve the work environment (Subsecretaría de Redes Asistenciales 2013a).

However, Chilean PC also emphasises disease-specific programmes and AUGE guarantees, which may lead to

fragmentation of care (Montero et al. 2010). Nevertheless, many of these programmes are associated with positive health impacts. For example, integral PC respiratory units including kinesiology treatment for acute paediatric respiratory infections (ARI), called ARI rooms (*Sala IRA*), expanded between 1999 and 2012, to reach 536 ARI units in the public PC network (MINSAL and Universidad de Chile 2005). In addition, adult respiratory units (*Sala ERA*), including kinesiology treatment for chronic respiratory conditions, were implemented (MINSAL and Universidad de Chile 2005; Astudillo et al. 2012). A study in the Metropolitan Region showed stabilisation in total ARI trends between 1993 and 2009, with a significant reduction in the proportion of serious complications, such as pneumonia and bronchial obstructive syndrome (from 3.4% to 1.9% and from 22.8% to 15.6% of total consultations, respectively) (Astudillo et al. 2012). Mortality data and the number of ARI rooms show an inverse correlation, with a significant reduction in infant mortality between 1990-2009 (Salgado 2012).

The challenge is to enhance these results by reorganising PC teams towards working with families in population sectors, using the biopsychosocial approach, integrating vertical programmes focused on the control and treatment of specific health problems (cardiovascular health; acute respiratory infections and asthma in children, ARI programme; chronic respiratory diseases in adults; mental health; epilepsy) with horizontal life course preventive and curative care (pre- and postnatal controls and well-child check-ups; morbidity attention by age group for children, adults and older adults) (MINSAL 2009b). The integration aims to converge in a positive 'diagonal' approach leading to overall PC strengthening and improved population health (Atun et al. 2010). KIs provide some insight into how this process is progressing, describing teams as more transversal, versatile and multifunctional (KI: central policy level), and the evolution as:

... positive, towards a more life cycle approach rather than special programmes where each programme does its thing. Now ...programmes have integral activities where the rest of the team participates. One sees this with the kinesiologist who used to only be in the ARI unit and now works in the adult and child health programme. The teams have grasped this (KI: PC provider).

Some PC teams are also managing AUGE/GES guarantees by sector: *The team knows which patients are GES in its territory. We don't have a problem because it's in the electronic records... the system has alerts and the team doctor follows the patients in his/her sector* (KI: academia). According to several local KIs, in addition to Chile Crece Contigo, family teams make home visits for chronic patients

who are not mobile: *We visit all our prostrate patients at home, there are three teams, one for each sector, with a nurse and a social worker in charge, who visit and see if the doctor also has to go* (KI: nurse).

Resources

Public financing for PC expanded dramatically from 1990 to present (over 20-fold in absolute terms from \$95,147 to \$1,957,026 thousands (equivalent in 2013 pesos) (Zuleta 2013). At the beginning of the 2000s the share of the health budget for PC represented 13.7% of the total health budget. Currently it is around 20.5%, with 29.6% of the total operating budget of the SNSS spent in PC (Zuleta 2013). Between 2001-2013, Ministry of Health per capita payments increased 607% and municipal contributions rose 183%. This has translated into growth in the health workforce and greater diversity of PC multi-professional teams.

Yet, the **rate of consultations** by 1,000 enrollees only increased from 2.5% to 3.8% (Subsecretaría de Desarrollo Regional y Administrativo nd). In part the increase in resources has been offset by the increase in the beneficiary population, which was around 9.8 million in 2006 and

12 million today. To confront growing demand and expectations, one of the strategies is expanding access to PC urgent care services. AUGE guarantees have increased demand and the cost of services to ensure that medicine and exams are in compliance with clinical guidelines, including home visits and other psychosocial activities in Chile Crece Contigo. Analysis of PC activity reports from 2007–2013 shows decreasing rates of medical consultations, increasing SAPU urgent care activities and levelling of preventive controls (Departamento de Estadísticas e Información de Salud 2014c). It appears that PC development in Chile is at a critical juncture, requiring policy reinforcement and innovation. KIs viewed favourably the current government's renewed emphasis on PC, supported by increased financing and new policy measures, but stressed the need for monitoring, evaluation and profound structural changes.

In addition to the incentives for family medicine specialists, two specific government measures resonate with critical aspects for PC strengthening, identified in the literature and by KIs: i) PC information systems for support management and population knowledge generation; and, ii) a more integral, chronic care model (see *Box 6*).

Box 6: Towards a more integral model of chronic care

The Chilean PC system is struggling to adapt its model of care – still geared towards facility-based care for maternal-child problems – to better address the challenges of NCDs in an aging society. New measures are being implemented in 2014 to develop a more integral model of chronic care, which includes: guaranteed free medicine for NCDs (the Medicine Fund); prevention programme for people with risk of diabetes and hypertension with nurse-nutritionist-kinesiologist-physical education teams in 237 PC centres, reaching over 130,000 people; workshops for risk groups; training for local health teams; and workshops for older people to maintain self-sufficiency, prevent sedentarism, depression and isolation, with therapists and physical education instructors in all centres with populations over 20,000, reaching 50% of senior citizens, over 1.1 million people (Yáñez 2014).

The *Salud-e* digital strategy aims to transform the sector's information structure, centring information and communication flows on following patients throughout the health system with integrated electronic platforms. The "Health Network Computerisation System" (SIDRA), which includes **electronic clinical records** and referral and counter-referral reference (Pacheco 2012), has been in development since 2008 (MINSAL 2014f). However, the start was disorganised, in part due to municipal autonomy. Many PC facilities initiated individual projects, often incompatible with other health centres. As a result, even though there is significant coverage of electronic clinical records (68% of the CESFAM, CECOF, CGR and CGU and 73% of community hospitals), most rural health posts, SAPU and COSAM were excluded until now. Compatibility interfaces for information sharing between the network's establishments are necessary (Fuentes 2013).

Service features

As indicated earlier, Chile guarantees universal health coverage with enrolment of more than 97% of the population, predominantly covered by FONASA (Ministerio de Desarrollo Social 2012). FONASA affiliates have access to free PC, provided by health teams rather than individual practitioners through the extensive network of PC facilities previously described. All PC facilities should provide comprehensive services defined in the Family Health Plan and meet clinical guidelines for guaranteed priority conditions. However, heterogeneity in resources and capacities mean geographic inequities in availability and access to services.

Measures to improve access include **extending operating hours** in the evening and on Saturdays and expanding SAPU urgent care services (Subsecretaría de Redes Asistenciales 2013b). There are often **waiting times for medical visits**,

particularly for adult morbidity as children and older people are prioritised. Excess demand for medical visits leads some centres to use strategies such as selection protocols and ‘quick care’ (*poli-clínico de choque*), seeing 5-7 patients per hour, with some type of follow-up to ensure continuity (Barrientos and Larrea 2013). Nevertheless, same day urgent care (SAPU) consultations are available in all urban and most rural concentrated communities. In the context of the INTRA-WHO study, PC wait times for those over 50 was evaluated in the Viña del Mar-Quillota Health Service, where 39% of the patients had to wait more than an hour to be attended and 40.4% considered the wait too long (Marín et al. 2005).

Timeliness of care for PC AUGE guarantees

AUGE increased demand overloads, since most AUGE activities are resolved in PC. Implementation did not adequately address existing management and resource problems, let alone new requirements, straining capacity (Montero et al. 2010). A 2012 study confirms that 81% of AUGE activities accumulated to March 2010 were outpatient (70% in the private sector and 81% in FONASA) (Montero 2010) with 62% of PC interventions complying with maximum waiting times, superior to second and tertiary compliance (38%). Nevertheless there was important variation in PC compliance (10%-100%) among Health Services (Superintendencia de Salud 2012). There are differences between facilities within regions. For example, in the Metropolitan Region, one service had 14% compliance and another 71%; in Northern Chile differences ranged from 10% to 100%, whereas in the South, it was 36% to 87%. These variations were attributed to local differences in management mechanisms and workforce and patient characteristics.

Effective access and equity

Providing more services across socio-economic groups has resulted in less inequality in the use of services. However, inequities in needs-adjusted use persist (Paraje and Vásquez 2012a). Lack of knowledge of guarantees and health system factors, including opening hours, are barriers to effective access to AUGE benefits, which were identified in the equity review of dental health and cardiovascular programmes (Vega 2011). A study on the effective transfer of Chile Crece Contigo PC benefits to socially vulnerable mother-child groups in a disadvantaged municipality in the Metropolitan Region found that only 57% to 74% of children had received the programme’s universal benefits and only 18% to 22% had received specific benefits. Moreover, referrals of socially vulnerable mothers for intersectoral interventions, including continuing education, labour insertion, family support and transfer to Chile Solidario were insufficient (Arcos et al. 2013).

Quality of care

Guidelines are available for all AUGE-guaranteed conditions and for some specific programmes, but there is little information on adherence. Advanced CESFAM facility certification requires a team in charge of continual quality improvement planning, coordinating and monitoring activities (MINSAL 2009b). However, there is a lack of evidence about results. As part of the quality guarantees in the healthcare reform, the Superintendent of Health established a system of accrediting healthcare facilities and certifying professionals, which is still to be implemented. A 2011 study showed that just 1.1% of PC facilities complied with minimal accreditation requirements of a total of 2,840 institutions that should provide AUGE services (Concha 2011). Three years later, four CESFAM are among the 34 health institutions currently accredited (Superintendencia de Salud 2014).

Efficiency

According to an OECD study, Chile is one of the four most efficient OECD countries, with low health spending relative to life expectancy (MINSAL 2011b). Nevertheless, some ‘inefficient practices’ exist, such as the unnecessary use of some interventions, particularly in the private sector, such as the high rate of caesarean section in Chile compared to OECD countries, reaching 76% in the private sector (Orrego et al. 2014).

Trust and supportive relations within the system

User satisfaction assessments give high marks to PC facilities, particularly in relations with staff (Escuela de Salud Pública 2013). A study showed that FONASA users evaluated the public healthcare system with a grade of 4.7 (between 1 and 7), slightly higher than in 2007 and lower than the ISAPRE users’ evaluation of their system (5.1). Health centres (all types) received an average grade of 4.5, 26% of FONASA respondents (and only 7% of ISAPRE users) said they felt unprotected or very unprotected if faced with an important health problem (Superintendencia de Salud 2013b).

3.3 Experience of the PC system from the patient’s lens

The following steps are part of a highly stylised pathway of a woman named Juanita, a 60 year old FONASA A affiliate, living in an urban municipality in the Santiago Metropolitan Region (see *Figure 8* overleaf).

Juanita and her family are registered in her neighbourhood PC facility, a CESFAM. A multiprofessional health team, whose members she knows by name, are in charge of the sector where she lives (A sector). Juanita’s blood pressure (BP) was measured during a community screening carried out by the PC team at the local green market and because her

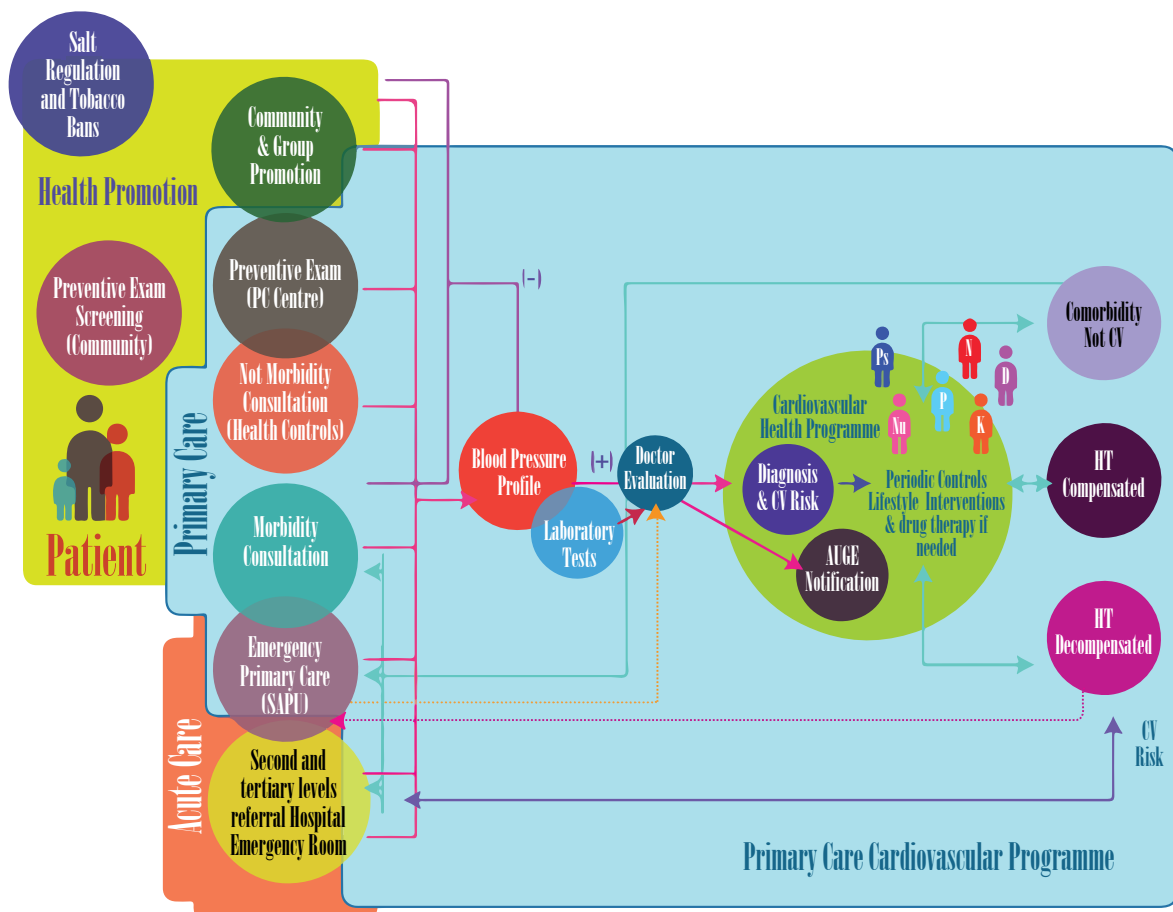
BP was 150/100 mm Hg, she was told to go to her CESFAM the next day to confirm the reading and informed that hypertension (HT) is an AUGE condition.

At the CESFAM, a paramedic or nurse will take Juanita's BP again. If the reading is 180/110 mm Hg the diagnosis of HT will be confirmed, but if her BP is lower she will be asked to return on two additional occasions to determine her BP profile. If she doesn't return, a paramedic or nurse from the A-sector PC team will call her or make a home visit. If her BP profile indicates HT ($\geq 140/90$ mm Hg), laboratory tests are taken (haematocrit, plasma creatinine, urine test, glycaemia, uric acid, lipids profile, potassium, and an electrocardiogram) and she will be given an appointment with her PC team's doctor for a complete clinical evaluation of cardiovascular risk (BP, heart rate, BMI, and waist circumference), with an AUGE guarantee that the evaluation will occur within 45 days from the initial test (the first BP reading in the CESFAM). If HT is confirmed during the medical evaluation, the doctor will inform Juanita about her cardiovascular risk and AUGE guarantees. Treatment including lifestyle interventions and drug therapy, if indicated, will begin within 24 hours. She will be registered in the PC Cardiovascular Health programme for regular follow-ups. Medicine and exams

are all free, but in some municipalities availability may be irregular (the Ministry of Health's new Drug Fund aims to ensure effective access to pharmacotherapy). If Juanita is diagnosed with diabetes, another condition with AUGE guarantees, or hypercholesterolemia, which are CV risk factors, these conditions will be controlled during the Cardiovascular Health programme visits. If secondary HT is suspected, Juanita will be referred to a specialist and may have to wait several months or longer.

In general, Cardiovascular Health follow-up visits are scheduled every three to six months with laboratory tests every six to twelve months depending on the results of control goals. Controls are carried out by a multidisciplinary team, including a doctor, nurse, nutritionist, paramedic, and ideally a kinesiologist, psychologist and social worker, if the latter are available. If Juanita has an acute episode between control visits, she should be able to see someone from her PC team, the Cardiovascular Health team, or have preference for a PC morbidity visit. However, depending on her municipality she might have to wait to get an appointment (visiting the centre or calling several times on the phone) and end up using PC urgent care (SAPU) or hospital emergency services.

Figure 8: Pathway of a hypertensive patient



Source: Authors. D: doctor; N: nurse; Nu: nutritionist; PS: psychologist; K: kinesiologist; P: paramedic; HT: hypertension

This pathway is similar for all adults 15 years or older in public PC, because it is part of the Ministry of Health's clinical guidelines for AUGE guarantees for hypertension and the PC Cardiovascular Health programme. Nevertheless, the resources and composition of the multi-professional teams may vary and are more basic in rural outposts or stations. In a CESFAM, other actions may occur, such as meetings with the patient's family to support lifestyle changes and adherence to treatment (53.9% of the municipal health directors who responded to an online questionnaire said the PC team regularly carried out activities with families of chronic patients) (Mansilla 2013). Some centres also use text messages (cell phones are widely used in Chile) to strengthen adherence to controls and treatment, a system that will be widely implemented during 2014 (Yáñez 2014).

In general, a person with HT and/or diabetes or other cardiovascular risks has access to a diagnostic evaluation and treatment with AUGE guarantees in PC through four entry points:

1. During a PC medical visit, the physician almost always measures BP or may suspect HT because of presenting signs and symptoms.
2. During a SAPU visit, if the signs or symptoms are suggestive of a hypertensive crisis, depending on the severity of the episode, the patient is referred to a hospital or to his/her PC centre for follow-up.
3. Referral from secondary or tertiary levels after diagnosis in the course of a hospitalisation or specialist consultation (for example gestational hypertension or myocardial infarction).
4. Preventive screening (a preventive medical exam is an AUGE guarantee and coverage indicators for different age groups are part of the IAAPS PC activity index).

If Juanita had another chronic disease not part of the cardiovascular programme, such as depression or arthritis, she should receive care from her sector's health team. However, in some centres a separate team in charge of the mental health programme or arthritis might handle it.

The pathway varies in rural health stations where PC is provided by a resident paramedic technician. A health team composed of a doctor, nurse and midwife (and possibly a psychologist or other professional) makes periodic rounds (weekly or monthly, depending on accessibility), regularly controlling chronic disease patients at the station. They may also visit patients who are not able to travel at home during the rounds.

If Juanita belonged to an ISAPRE, the physician who diagnosed her hypertension is legally obliged to notify her about the AUGE guarantees and her right to continue

treatment with the insurer's preferred providers. Unlike other health events, medicine is included for AUGE conditions, subject to legally established co-payments, and discounted in commercial pharmacies that have agreements with specific ISAPREs. Although ISAPRE patients have the same AUGE guarantees, Ministry of Health PC programmes such as the cardiovascular health programme are not mandatory, so a doctor is likely to provide care instead of a multi-professional team. Often, private sector patients choose not to use their ISAPRE's AUGE provider, opting out of AUGE guarantees, and continue to see a cardiologist, nephrologist, or other specialist under the regular conditions of their health plan (higher co-payments) (MINSAL 2009d; MINSAL 2010c).

3.4 Social roles

This section explores social roles in the Chilean public PC system, particularly the orientation to, involvement of and links with patients, families and communities, in aspects relating to social and client health literacy, roles and empowerment, choice and trust.

Wider socio-political changes and citizen mobilisation

Widespread citizen demonstrations to voice social demands for better and fairer education, environmental protection, political participation and health rights in 2013 (Meyer 2014; Alarcón 2013) reflected a growing policy focus on rights, reinforcing longstanding social values, and underscored dissatisfaction with postponement of more structural solutions to address social inequalities. The momentum led to a change of government in 2014, with a policy platform of structural reforms and the election to Congress of all the student leaders who ran for office in 2013. If it also translates into increased social roles, strengthened mechanisms and new forms of social participation in health and PC remains to be seen.

There is relatively little literature on social roles in primary health in Chile, other than government orientation and guideline documents for planning and implementing the MSF model, despite the existence of mechanisms such as local health councils established in the early 1970s. The MSF in Chile emphasises a strong social role for families, community representatives and organisations working with healthcare teams to improve individual, family and community health and well-being, understanding that health is a collective pursuit.

Social participation is understood as a social determinant and a *means* for enabling people to be active participants in self-care, create community capacity for interaction and solidarity action, achieve health objectives, and exercise citizen control over the health system. In transition to the MSF, social participation in Chile is evolving from models of assuring information and access to consultative processes

that identify and take into account demands, expectations and proposals and eventually towards more deliberative mechanisms and decision making power by citizens (Subsecretaría de Redes Asistenciales 2013a).

Since the early 2000s, the government and health system have implemented legal mechanisms and policies to ensure social participation in its widest sense and in a way that is effective, more representative and engaging as opposed to informing. Key examples include formal participatory bodies in the Health Authority and AUGE Laws (Nancuante Almonacid and Romero Celedón 2008), the Patients' Rights and Duties Law (MINSAL 2012a), the Transparency Act (2008) (*Box 7* overleaf) and the Ministry of Health's Equity Agenda vulnerable communities' and health forums initiatives (see *Appendix A7*) (Vega 2011).

Nevertheless, as in the literature, KIs feel that community engagement is an ongoing and critical challenge for the PC model (Orrego et al. 2014; Mendez and Vanegas 2010). The 2008–2010 vulnerable communities programme (*Comunas Vulnerables*) sought to reduce barriers to health services and social protection in the 96 most vulnerable municipalities in the country, generating a process of dialogue, discussion and information exchange, which engaged 1 million neighbourhood leaders and organisations in rural and disadvantaged localities. The results included an expansion of PC opening hours, improved specialist referral processes, provision of ophthalmology services and, in collaboration with other sectors, solutions for transportation problems and issues of basic sanitation.

In 2009, health forums were held in every region of the country with the purpose of engaging 50,000 community and intersectoral actors in preparing proposals for improving population health in the next decade. Each region identified and selected proposals for solving its main priorities, identifying responsibilities at seven different levels: My Health, Community, Health Services, Education, and Employment (Vega 2011). While some of these initiatives were interrupted during a change of government 2010–2014, the Health Objectives Strategy for 2011–2020 also includes participation as a key element with strategies to integrate all levels of the health system, user participation and rights and self-care (MINSAL 2010b; 2011a). Work to strengthen social participation in municipal PC continued, albeit unevenly, following guidelines to support implementation of the MSF (MINSAL 2009c). Also CESFAM certification includes working with families and the community in participatory health diagnosis, functioning of local health councils and information and complaint offices, accountability mechanisms and user satisfaction surveys (MINSAL 2009b), updated in 2011 (MINSAL 2012b) (see *Appendix A11*).

The main strategies for community participation in PC are summarised in *Appendix A12* and outlined below with a focus on their functioning:

- i. **Consultative Councils or Local Development Councils (CDL)** are advisory bodies that counsel directors of PC health institutions in matters relating to management. They have a pivotal role in leveraging other participatory processes. Health workers and representatives of local community organisations integrate the councils. The CDL strengths are their resilience and the commitment of participants, their ability and disposition to dialogue, their openness to new ideas and visions, willingness to learn and consider new ways of contributing. Some challenges include representativeness, lack of interest of some groups in the population (especially younger people) reinforced by weak renewal mechanisms, with the same representatives, mainly seniors, being renewed and participating in various organisations simultaneously (MINSAL 2012b).
- ii. **Office of Information, complaints and suggestions.** The acronym for the *Oficina de Información, Reclamos y Sugerencias—OIRS*—also means 'listen' in Spanish. All government institutions, including PC facilities, are required to have OIRS. In the CESFAM, OIRS facilitate access to information about health benefits and services and other governmental services, promoting the rights of citizens. Timely response to complaints received by OIRS is one of the indicators evaluated in the PC Activity Index (IAAPS), the institutional control and incentive system. This evaluation has repercussions in per capita allocations in the next PC budget operation (División de Atención Primaria/Subsecretaría de Redes Asistenciales 2014). In one instance, community representatives, who had played an active role in getting the CESFAM built, developed the local OIRS: *... since we had been involved in the whole process of getting the CESFAM built we wanted to have a table where we could receive our neighbours, who were starting to arrive and did not know the centre's layout, so we could guide them to where the doctors were... we installed a table and began to develop into an information office...* (KI: community representative).
- iii. **Public accountability.** By law all public institutions present public reports on management policies, plans, programmes and actions, and budget execution (Presidencia 2008). In PC, public reporting is directed at the community and must contain the following: policies, plans and programmes; budgets; access to public information; participatory public management; strengthening civil society; and non-discrimination

Box 7: Principal aspects of the Transparency and Access to Public Information Act

This law regulates transparency in government and civil service and access to public information, and divides transparency into two components: 1) Active transparency, which involves publication through webpages of information related to institutional structures, functions, regulatory framework, personal hires and salaries, public contracts, transfers of public funds, acts or resolutions involving third parties, procedures for access to information, public participation mechanisms, budget execution and auditing results; and 2) Passive transparency, granting all citizens the right to request and receive information from public organisms. Requests may be denied if the information affects: functioning of the institution, the rights of people, national security, national interests or it is reserved by law. It also creates a Transparency Council, whose aim is to promote transparency in public service, monitor compliance and disclosure of information and guarantee the right of access to information. It is comprised of four members appointed by the President and confirmed by the Senate for a six-year period (Ministerio Secretaría General de la Presidencia 2008).

and respect for diversity (MINSAL 2009c). Municipalities report differently, in some reporting is constructed with community participation and in others a technical staff prepares a public presentation. It may be part of the Mayor's accountability report. One Municipal Director in the Metropolitan Region uses digital platforms: *Everyone should know what we are doing. We have blogs in all of our centres to inform and educate and people are connecting more and more* (KI: PC manager).

There are various examples of participatory health diagnoses (epidemiologic mapping), citizen's dialogues and consultations and participatory budgeting: a CESFAM in Maipú, a low-middle income municipality in the Metropolitan Region, carried out a participatory diagnosis of adolescent health needs involving students from three local high schools in focus groups. The results were used to strengthen promotion and prevention activities in the 2012 municipal health plan (Subsecretaría de Redes Asistenciales 2013b); 200 community leaders and citizens participated in a one-day dialogue to develop, discuss and agree on proposals to improve health professional – patient interaction (Chávez Roca 2014); and in another municipality, consultative councils members, community leaders and intersectoral actors convene annually for a one-day workshop to discuss the health situation and activity and performance indicators and to propose new goals and priorities (KI: municipal manager). Participatory budgeting has been in place since 2000 with more than 40 municipalities regularly developing PB programmes. Several Ministry of Health Services, such as in Talcahuano and Ñuble in the Biobío Region, and Llanquihue further south, regularly develop public dialogue and prioritisation mechanisms to identify and finance community priorities, including health promotion and prevention activities (KI: PC provider).

Health literacy

Health literacy (*alfabetismo en salud*) assessments are not common in Chile, and the term is not used in family health documents, although it is covered in participation, education and information guidelines and mentioned in new proposals to facilitate information exchange through social networks and e-health (Orrego et al. 2014). A recent study compared health literacy in different population groups, artisan fishermen families, women who used PC reproductive health services, university and high school students, using an abbreviated test (SAHLSA) to measure knowledge of common medical terms and determine whether it was homogenous enough to allow the use of informed consent templates for research studies. It found that overall there was high health literacy (with 85.4% ± 13.5% correct responses), but university students and women who used PC scored considerably higher than fishermen families and public high school students (Saavedra-Dahm et al. 2012).

Evaluations of community knowledge regarding AUGE find shortfalls, particularly in poor and marginal groups. For example, six years after implementation, a study in Cerro Navia, one of the poorest municipalities with the highest *Mapuche* (indigenous) populations in Santiago, revealed that 63% of patients 55+ years with degenerative knee disease reported that they had not been informed that their health problem was guaranteed. In addition, 50.2% were unaware of AUGE's existence (Tamayo and Rebolledo 2011). Another study with women residing in a metropolitan area showed more than half (57%) did not know that cervical cancer was part of AUGE and was one reason for rejecting available Pap screening (Urrutia et al. 2008). However, other studies show that only 22% of AUGE patients were not aware of the guarantees (Urrutia et al. 2010). One KI emphasised that there is a need to improve knowledge of care entitlements and to be responsive to different attitudes, beliefs or responses to a diagnosis; for example:

One understands that it's complicated to be told that for the rest of your life you are going to be hypertensive or diabetic, so you bury your head in the sand....Educating, making them see that it's super important for their quality of life... that requires a lot from the team (KI: health manager).

The model for PC in Chile encourages a strong social role for families and community organisations, supported by technical guidance, instruments and certification guidelines for CESFAM and social participation goals linked with result-based incentive mechanisms. However, transforming discourse on participation into practice is not easy and takes time, as KIs stressed. Factors relating to the general political context (participation as consultative, power asymmetries, paternalism and lack of funding) and local problems (validity of representatives, authoritarian leadership, resistance to change on the part of health teams) constrain effective participation and development of social roles. However, some good practices are highlighted in *Appendix A13*.

3.5 Outcomes

A variety of health indicators related to PC in Chile are documented throughout this report. In particular, outcomes linked with Chile Crece Contigo, AUGE and specific PC features are described in domains 1 and 2 and their appendices. *Appendix A14* presents a summary of general and health indicators available in Chile, pertaining to the domains and constructs of the project's analytical framework. The section only summarises some of the key outcomes that have been explicitly linked to PC in Chile.

In relation to **Health status**, positive health outcomes were noted in that:

- i. Age-standardised mortality (per 100,000) from cardiovascular diseases and cancer decreased from 311.4 to 210.2 after introduction of the AUGE (2000-2012) (OECD 2014a). Burden of disease changed in 1993-2008 and congenital anomalies and lower respiratory acute infections, conditions linked to PC programmes and AUGE guarantees, were not in the first 20 causes (MINSAL 2008a). The adolescent (10 to 19 years old) birth rate has steadily decreased from 166 per 1,000 live births in 2008 to 144.2 per 1,000 live births in 2012 (MINSAL 2013). This is associated with greater access to PC sexual and reproductive programmes, including the morning-after pill (MINSAL 2013).
 - ii. Implementation of ARI units in PC has been linked with decreases in hospital respiratory consultations in children in the Metropolitan Region (Astudillo et al. 2012) and a significant reduction in infant mortality due to acute respiratory infections between 1990-2009 (Salgado 2012).
 - iii. After the PC Cardiovascular Health programme incorporated stronger screening and diagnostic capacities, therapeutic improvements and expanded human resources, increasing coverage and effective coverage of hypertension and diabetes (MINSAL 2009d), 60% of patients treated for hypertension were normotensive according to one study (Sandoval et al. 2012). Significant increases in the number of people with hypertension and type 2 diabetes in PC chronic disease programmes, between 2002 and 2007, have been associated with reductions in hospitalisation rates (Bitrán et al. 2010).
- In relation to **Health service outcomes**, mixed health outcomes were noted in that:
- i. According to official statistics between 2007 and 2013 rates of PC medical visits declined together with preventive health controls, whereas PC urgent care visits and the use of MLE private provider vouchers increased. However, these statistics also show an increase in integral home visits for non-mobile patients and other vulnerable groups, with coverage of families with home visits increasing from 10% to 14% (see graphs in *Appendix 14*).
 - ii. Coverage is high for only a few preventive control programmes in Chile: the highest for children under six years at 87.4%, the historical focus of PC in Chile since the 1950s, and the lowest for adolescents at 4%. Coverage rates of the national immunisation plan have been relatively stable, more than 88% from 2005 to 2012 (Departamento de Estadísticas e Información de Salud, Ministerio de Salud nd) and improving to 92.2% for BCG (newborns) and 78.3% for MMR vaccine (12 months) (Departamento de Estadísticas e Información de Salud, Ministerio de Salud 2013). For older people health control coverage reaches 29%, but for adults in general only 7% (Bächler et al. 2012). Overall in 2007, only 20% of public sector beneficiaries were ascribed to preventive programmes (Bächler et al. 2012). These findings are consistent with statistics of the adult preventive exam, whose coverage in municipal PC only increased from 8.2% to 9.8% between 2001 and 2013, despite AUGE guarantees (Departamento de Estadísticas e Información de Salud, Ministerio de Salud 2010b). The insufficient prevention of disease complications that could be controlled in PC may explain why referrals to specialists are increasing slightly.
 - iii. National household survey data show increases in the utilisation of different types of health services by the population, especially for general consultations and controls and urgent care, related to PC (Paraje and Vásquez 2012b; Frenz et al. 2013a).

Despite overall advances in health outcomes and improvements for disadvantaged populations, efforts are insufficient to overcome **health inequities** (geographic, educational and socio-economic). For example, even though the infant mortality rate has steadily declined, maternal education gaps in infant mortality increased three times. There is room for improvement with uneven impact of Chile Crece Contigo (see *Box 2*) and additional efforts are needed to reach the most vulnerable families through improved cross/intersectoral action rather than within sector action. The gap in PYLL (potential years of life lost) between the least and most well-off municipalities increased by 2% between 2000 and 2010, although the goal was to reduce it by 30% (MINSAL 2010b).

The prevalence of risk factors for NCDs also shows differences by geographic and educational level. For example, for the lowest educational level (less than eight years of education), prevalence of hypertension, obesity and diabetes were 51.1%, 35.5% and 20.5%, respectively, while for the highest educational level they were 16.7%, 18.5% and 6.2%, respectively. Only tobacco consumption was higher for the most educated group with a prevalence of 50.3% (and 25.6% in the least educated) (MINSAL 2010a). There are also significant geographic variations in reported utilisation of PC services by Health Service, but the differences by household income are not significant (*Appendix A14*). However, horizontal inequity (needs-adjusted use) of specialist services persists (Paraje and Vásquez 2012a).

The equity review of health programmes (see *Appendix A7*) indicates that even guaranteed services are not taken up by all groups in the population. For example, despite AUGE oral health guarantees, only 37% of the six-year-old target population were seeking this care, and 6% who did, were not given an appointment, meaning effective coverage was limited to 28% of the target population. The main differences among socio-economic groups include access to information, conditions of access, availability of dental hours, and access to self-care tools. For the Cardiovascular

programme, males under 55 years of age, the main excluded group, confronted barriers to access, aggravated by precarious employment conditions, restrictive opening hours, work localities and cultural factors (Vega 2011).

3.6 Managing and sustaining change

This domain analyses factors – institutions, interests, and ideas – that promote and sustain (or act as barriers) to change in the PC system in Chile and examples of action to address them (see summary table in *Appendix A15*).

Facilitators: policy legacies, institutions, interests and ideas

As noted in *Appendix A2*, the policy legacies of UHC, embodied by the SNS and underpinned by equity and solidarity, facilitated development of the public PC model in Chile. Health professionals often with dual ties to the health system and universities and international connections, play a critical role in shaping, managing and sustaining policy change and implementation in Chile, in a paradigm of ‘thinking politics’ (Mardones-Restat and de Azevedo 2006; Puryear 1994). For example, the April 2014 report with proposals to strengthen PC care in Chile was formulated by a working group of academics, municipal health directors, frontline providers and policymakers, under the auspices of Pontificia Universidad Católica’s Public Policy centre, and including specific proposals on financing, human resources, information systems, community engagement and management aspects (Orrego et al. 2014). Particularly in PC, personnel from central to local levels, converge with academics in ministerial working groups and independent communities of practice (Comunidad de Prácticas en APS and Orrego et al. 2014), leading to the development of a specific PC perspective: *First of all we are a PC culture, independent of level – central, Health Service, municipal management – in the local PC centre – we have the same culture* (KI: central policy).

Box 8: CONFUSAM (Confederación de Funcionarios de la Salud Municipal)

CONFUSAM is the municipal health workers’ union, uniting federations in all the regions, with over 25,000 affiliates, organised in over 250 assemblies, working groups and local associations. Its mission is to strive for the quality of the public health system, centered on the right to health and based on principles of solidarity, integrality, equity, universality and social participation, whose pillars are the PC model and the dignity of municipal health workers (www.confusam.cl). In addition, each profession, doctors, nurses, dentists, kinesiologists, has its own association, such as Colegio Médico, the medical association. CONFUSAM and the professional associations exert strong policy influences, leveraged through mobilisations and strikes, shaping the PC Law and health reform. CONFUSAM was instrumental in developing collective performance incentives related to health objectives and negotiating wage increases and goals, annually (Ambler Pinto and Pinto Maturana 2007).

At the national level, the Ministry of Health has a stewardship role in developing policies, norms, standards and the management system of incentives and controls to produce and leverage substantive changes in the PC practice, ranging from reporting and accountability to workforce development. For example, as discussed earlier, national health objectives for 2000-2010 (MINSAL 2002) set goals for planning and programming orientations for PC linked with results-based budgeting and the EAP incentive management system. This system provides the foundation for change and accountability, including compliance with AUGE guarantees, development of the family and community health model, Chile Crece Contigo and other PC goals.

Collective workforce incentives have been supported by and negotiated with the PC workforce union CONFUSAM (see *Box 8*), and together with institutional incentives are oriented towards leveraging results. National studies and evaluations, including epidemiologic, social preference, cost verification, systematic reviews and increasingly impact evaluations, are used to define AUGE guarantees and guidelines, wider social policy and other PC interventions (MINSAL 2004).

However, much of the health information is aggregated at the national level. KIs stressed the need for more robust local indicators to sustain PC management and planning, beyond the current set established by the ministry. This requires strengthening information systems (such as SIGGES, the AUGE information system to manage and follow guarantees and SIDRA), to offer regular, timely, reliable and relevant information to support local management and needs assessment (Orrego et al. 2014).

The annual municipal planning process for PC also provides an opportunity to review change and sustain improvements in PC involving Health Services, municipal authorities and communities (MINSAL 2012b), as do other processes, such as CESFAM certification, and the Primary Care Activity Index and performance indicators. All enable measurement and evaluate advances in implementation of the PC model and local progress towards national health objectives (MINSAL and Universidad de Chile 2005). The system however is heavy on procedures and reporting, which is burdensome for local teams. Local KIs feel that excessive ministerial control constrains local adaptation, innovation and responsiveness: *The ministry has to end its anxiousness to control every last detail. Who says that there is only one way to do things* (KI: PC manager). KIs feel that there is need to follow individuals to see who gets what services and their impacts, and to gather data to support local planning. Various central level initiatives are being developed to address these issues, including a pilot programme in 16

CESFAM, using the Johns Hopkins University's Adjusted Clinical Groups system (Santelices 2012).

To strengthen health team capacities, the Ministry of Health implemented a virtual education programme, U Virtual, including 37 educational capsules in different areas, several of them related directly to PC, such as management in the health family model (MINSAL nd). Additionally, the ministry has implemented incentive programmes to stimulate and accelerate training in family medicine, in conjunction with universities (Montero 2010; Depaux 2013). *Section 3.2* outlines other workforce initiatives.

Municipal autonomy: facilitator or barrier?

Mayors, who appoint municipal PC management and make decisions about the levels and use of municipal PC contributions, have a political interest in improving PC services to increase voter satisfaction. This facilitates PC strengthening, but may also skew development towards popular demands rather than an integral PC model. The importance of municipal authorities was highlighted by one KI, who indicated that implementing and sustaining change requires longer tenure of municipal health directors with high-level technical and management capacities, who should be subject to the Civil Service selection system rather than political designation (Orrego et al. 2014; KI: PC provider; KI: community representative). The Chilean Association of Municipalities (*Asociación Chilena de Municipalidades, ACHM*), since 1993, created a health commission whose objective is to provide a common and more consistent voice for local government in discussions with the Ministry of Health regarding financing, management and development of the PC model. ACHM develops an annual programme to strengthen management capacities in municipal health, under an agreement with the ministry (Colección Municipal 2014).

Universities have historically collaborated with the health system to define policies and train implementers, facilitating and sustaining change. A recent example related to PC is the University Consortium for Health and Family Medicine (*Consortio Universitario de Salud y Medicina Familiar*), established in 2004 to gather academics from Chilean universities that have a family medicine department or unit (Facultad de Medicina Universidad de Chile 2005). They designed a joint family medicine diploma aimed at doctors working in PC in line with CESFAM certification requirements, (see *Appendix A11*). Other courses (introduction to local management in PC, comprehensive care for older people, chronic care in PC) also support capacity development in PC (Consortio universitario de salud y medicina familiar nd), as do university-developed PC demonstration models like the *Áncora* example (see *Appendix A16*).

Barriers for change in PC

As highlighted in *Section 3.2*, hospital-centred and disease-focused policies increase fragmentation and aggravate structural deficiencies and are seen as barriers for change towards MSF. Entrenched views of the medical profession, echoed by population preferences and driven by industry, skew the system towards curative, specialist care. On the other hand, economic and career interests of health professionals are fundamental factors driving or impeding change (as in *Box 8*). One KI highlighted the importance, and difficulties of maintaining alliances with health workers' associations with everything negotiated and agreed in order to align economic and career interests and PC objectives: *In the drive to get doctors 'excited' about PC, other workers also raise demands, even if they 'aren't rocking the boat'* (KI: central level).

Identifying, disseminating and adapting local best practices

The particularities of municipal PC with different visions and resources have led to the creation of multiple adaptations, which the system increasingly tries to capture. For example, one of the activities of the Ministry of Health and the municipal association, ACHM, annual capacity strengthening programme is the Good Practices Competition (Colección Municipal 2014):

For many years we looked at what we were doing wrong and how to fix it. Why not look at what we do well and try to transfer that, because it is important to look at a half-full glass and try to fill it a little more....Municipalities can do a better job... by managing local information to make decisions about services that respond better to problems in my area and that are not present in others (KI: academia).

In 2012, Chile became part of the Building a Community of Practice in Primary Healthcare in the Region of the Americas project, creating a Community of Practice in Primary Care (Comunidad de Prácticas en APS nd) node. This network is formed by different institutions, including the World/ Pan-American Health Organisation Office in Chile, universities, the Chilean Society of Family Medicine, Ministry of Health, several CESFAM and the University Consortium for Health and Family Medicine. It uses different mechanisms to identify and share experiences and knowledge related to primary healthcare, mainly a free access virtual platform and face-to-face activities (Vergara 2012).

Innovation circles

The Public Systems Centre of Universidad de Chile is developing an 'institutionalised, effective, permanent and sustainable' system to identify and transfer innovations and best practices, systems and management procedures, working with municipalities and other government and civil society groups (Waissbluth 2011). In the first stage, the centre developed a knowledge-sharing technology platform, specifically designed for that purpose (Centro de Sistemas Públicos 2014) and is now working collaboratively with several municipalities to adapt innovations, forming teams around relevant challenges for CESFAM (Innovation Circles).

The teams generate innovations with the support of a help desk. The innovation platform is free access and includes blog spots, virtual forums, links of interest, tweets, news and a library of educational tools (Centro de Sistemas Públicos 2013: <http://saludaps.colaboracionpublica.cl/>).

The project also convenes workshops (Innovatones or Innovation Marathons), where several innovation circles interact. The first was held in November 2013 (Organización Panamericana de la Salud 2013). In April 2014, three PC Innovatones took place, involving 40 innovation circles, generating 36 work agreements of which 47% were implemented. An additional 14 CESFAM expressed interest in implementing changes (Centro de Sistemas Públicos 2014).

4. Conclusions

4.1 Learning and challenges from Chile

Chile's public PC system is a product of the country's longstanding commitment to universal health coverage forged since the beginning of the 20th century, as a result of a unique configuration of economic, social and political factors. Its cornerstone was the Chilean National Health Service, providing care independent of contributory capacity, financed by workers contributions and public taxes, and based on PC. The commitment has been consistent, independent of political changes.

The main features of PC practice model were established decades ago and continue to the present, reflected in:

- Universality
- Publically-financed and operated free PC
- A PC model based on health teams working in centres
- An extensive territorial network of centres
- An early maternal-child focus, still what the model does best (as for Chile Crece Contigo)
- A social determinants perspective.

Like other health systems, Chile is striving to revamp and strengthen responses to changing and increasingly complex population health needs and expectations, driven by complex demographic and epidemiologic transitions and social and political transformations.

This has included providing additional guarantees for health priorities, which have been extraordinarily positive for people whose conditions are covered but have also distorted the SNS idea of integral coverage for the entire population. Guaranteeing timely, quality care creates new financial and administrative exigencies in already underfinanced and overburdened systems, leading to increased purchasing of private services. It is not clear how Chile will be able to sustain the guarantees approach.

However, the PC system is working to strengthen a biopsychosocial model focused on health rather than medical care, meaning working outside the PC centre with families, community organisations and intersectoral actors using a population health approach.

The key example of this approach in practice is Chile Crece Contigo. Primary care development to address the challenges of NCDs requires far more promotion, prevention, coaching, support, empowerment and technological changes, including monitoring and communication capacities ('connected health'). Simultaneously, the system requires greater clinical capacity to attend adequately to the levels of damage already present, striking a balance between medical and psychosocial capabilities.

The family and community care model is under pressure from the health system and from population demands for more technology and specialised care. In addition, the emphasis on expanding PC urgent care services (SAPUization), aimed at providing a first response to population demands and decompressing hospital emergency services, draws the focus and resources away from promoting health and preventing illness.

Despite Ministry of Health and Health Services norms, guidelines, incentives, and control mechanisms, PC practice been heterogeneous in development due to the variation in local resources and capacity of municipal governments, resulting in a proliferation of diverse and/or 'good practices', with little hard evaluation.

The PC community is convinced that the biopsychosocial family and community health model has merits, but it is still more a vision than a reality. The limited information on impacts, even in the more developed Chile Crece Contigo programme, is attributed to implementation deficiencies rather than defects in the model. However, the clash with other health policy approaches, particularly the disease-based guarantees and the emphasis on urgent care, is problematic.

Critically, PC remains undervalued in the Chilean health system with little real understanding of its crucial role and potential, notwithstanding the discourse. As one KI indicated, the real contribution of PC is often invisible and unrecognised because by preventing further disease and development, the contribution of PC is judged by *what it doesn't do rather than what it does* (KI: academic).

Our findings also suggest that the Chilean PC system is at a critical juncture in terms of the transition towards a transformative PC model, evidenced by a leveling off of services provided in recent years.

Although auspicious new policy proposals are underway to re-position PC within the health system and the broader social protection system, including increased financing, incentives for family medicine specialists, doctors and specialists in training, closing gaps in electronic health records and integrated information systems, and a more integral chronic care model, these may not be enough to redress structural deficiencies.

Strengthened monitoring and evaluation of new interventions are crucial. Clearly, moving forward will require re-thinking the role of PC health teams and strengthening people's involvement, community action, and integration with other levels of the healthcare network and other social sectors, to achieve greater health connectedness, potentially facilitated by digital technology.

4.2 Possible implications for the US and other contexts

The USA and Chile are very different politically, economically and culturally, which is reflected in the architecture of the respective health systems and the divergent notions of government intervention in health. Even though they face some of the same challenges of chronic disease burdens and social and geographic inequalities, with some similar health reform goals in terms of greater equity, effectiveness and efficiency, the paths chosen, shaped by underlying social values, differ. However, this does not mean that the Chilean experience is not informative and relevant. Many aspects of PC practice models in Chile may be instructive for the USA (Chile has also drawn from US experience). Compared to other countries with similar levels of health spending, and countries that spend more,

Chile has good results and many health policy experts feel that with strategic changes it can attain great results. Some key features that have relevance may be:

- i. Health results in Chile are associated with the reach of the system: it covers everyone.
- ii. The insurance system is mixed – public (FONASA) and private (ISAPREs) insurers – potentially mirroring the US context.
- iii. Having a coherent PC model (albeit oriented to maternal and child health) has been important and has relevance to federally funded CHCs in USA.
- iv. Organising PC as centre-based with multi-professional health teams and not only practitioners, embedded in communities and increasingly sectorised into small areas to foster family and community health.
- v. It delivers a family health plan, whose benefits follow a life course perspective, supported by guidelines, tools and national standards.
- vi. The biopsychosocial approach in the PC model, aimed at preventing health consequences by tackling biological and underlying social causes, within a wider context of integral social protection, is widely valued, despite the challenges in implementation. This is work in progress and thus there are as yet limited demonstrable evidence on impacts. The Chile Crece Contigo longitudinal accompaniment model does, however, have more evidence on its positive impact and is particularly compelling.
- vii. AUGE provides additional guarantees for priority health conditions, entailing an explicit priority-setting process, health planning and follow-up of individuals.
- viii. The financing blend, primarily capitation directed to practice level rather than individuals with additional programme-based and outcome/results-based incentives within an insurance arrangement, may provide useful experience for efforts to shift away from fee for service.
- ix. Use of performance incentives, linking workforce actions with national health objectives.
- x. Insertion at the municipal level, which is the operative level of the social protection system, with community and social development attributions facilitates intersectoral action and community work.

5. References

1. Aguilera X, Castillo-Laborde C, Nájera-De Ferrari M, Delgado I and Ibañez C (2014) 'Monitoring and evaluating progress towards universal health coverage in Chile', *Plos medicine* (forthcoming).
2. Alarcón M (2013) 'Miles de personas llevaron a cabo la "Marcha de los enfermos" en varias ciudades del país' Radio Biobío: Concepción. (Available at: <http://www.biobiochile.cl/2013/05/04/centenares-de-personas-llevaron-a-cabo-la-marcha-de-los-enfermos-en-varias-ciudades-del-pais.shtml>) [Accessed June 17, 2014].
3. Alvarado R and Rojas G (2011) 'El programa nacional para el diagnóstico y tratamiento de depresión en atención primaria: Una evaluación necesaria', *Rev méd Chile* 139:592–99.
4. Ambler Pinto D and Pinto Maturana P (2007) 'Percepción de los equipos de salud que el cumplimiento de las metas sanitarias va en desmedro de la implementación del modelo de Salud Familiar', Programa de Diplomado en Salud Pública y Familiar. Módulo I: Tendencias en Salud Pública: Salud Familiar y Comunitaria y Promoción, Universidad Austral de Chile, *La Serena*. (Available at: <http://tinyurl.com/pqh-jh6s>) [Accessed July 21, 2014].
5. Araya R, Alvarado R and Minoletti A (2009) 'Chile: An ongoing mental health revolution', *Lancet* 374(9690):597–8. (Available at: <http://www.sciencedirect.com/science/article/pii/S0140673609614902>) [Accessed July 12, 2014].
6. Arcos E, Muñoz LA, Sanchez X, Vollrath A, Gazmuri P and Baeza M (2013) 'Efectividad del Sistema de Protección Integral de la Infancia en madres y niños vulnerables', *Rev. Latino-Am. Enfermagem* 21(5).
7. Arica S de S (2012) 'Gobierno Transparente - Mecanismos de participación Ciudadana', Gobierno de Chile: Santiago.
8. Armas Merino R (2008) 'Situación actual de la educación médica en Chile', *Boletín de la Academia Chilena de Medicina* 45. (Available at: http://www.institutodechile.cl/medicina/publicaciones/Boletin_Academia_2008.pdf) [Accessed June 2, 2014].
9. Artaza-Barrios O, Toro-Devía O, Fuentes-García A, Alarcón-Hein A, Arteaga-Herrera O (2013) 'Gobierno de redes asistenciales: Evaluación de los Consejos Integradores de la Red Asistencial (CIRA) en el contexto de la reforma del sector salud en Chile', *Salud pública de México* 55(6):650–58. (Available at: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342013000600014&lng=en&andnrn=isoand&lng=es) [Accessed June 15, 2014].
10. Astudillo P, Mancilla P and Olmos C (2012) 'Epidemiología de las consultas pediátricas respiratorias en Santiago de Chile desde 1993 a 2009. *Revista panamericana de salud pública = Pan American journal of public health* 32(1):56–61.
11. Atun R, de Jongh T, Secci F, Ohiri K, Adeyi O (2010) 'Integration of targeted health interventions into health systems: A conceptual framework for analysis', *Health policy and planning* 25(2):104–11.
12. Bachelet M (2013) 'Chile de todos', Programa de Gobierno Michelle Bachelet 2014 - 2018, Gobierno de Chile: Santiago. Available at: <http://www.gob.cl/programa-de-gobierno/>.
13. Bachelet M (2014) '*Mensaje Presidencial ante el Congreso Pleno 21 de mayo 2014*'. Biblioteca del Congreso Nacional de Chile, Valparaíso.
14. Bächler R, Soto A and Pinilla M (2012) 'Cobertura de programas preventivos en Chile', *Cuadernos médico sociales* 52(2).
15. Banco Mundial and Subsecretaría de Redes Asistenciales (2010) 'Estudio de brechas de oferta y demanda de médicos especialistas en Chile', Serie cuadernos de redes 31.
16. Barrientos M and Larrea M (2013) 'Informe evaluación Implementación modelo de Salud Familiar' *SSMN*: Santiago.
17. Bass C and Ruiz M (2010) 'Identificación de factores relacionados con la rotación laboral de los médicos que trabajan en centros de salud de Atención Primaria del Gran Santiago' in *Segundo encuentro anual de la sociedad Chilena de políticas*. Púlicas: Santiago.
18. Bitrán R (2013) 'Explicit health guarantees for Chileans: The AUGE benefits package', World Bank: Washington DC. (Available at: http://www-wds.worldbank.org/external/default/wdscontentserver/wdsp/ib/2013/02/01/000356161_20130201171654/rendered/pdf/749580nwp0chil00box374316b-00public0.pdf) [Accessed May 17, 2014].
19. Bitrán R, Escobar L and Gassibe P (2010) 'After Chile's health reform: Increase in coverage and access, decline in hospitalization and death rates' *Health affairs* (Project Hope) 29(12):2161–70. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21134916>) [Accessed April 21, 2013].
20. Carneiro P, Galasso E and Ginja R (2013) 'Tackling social exclusion: Evidence from Chile', Centre for Microdata methods and practice. Working Papers (CWP24/14). Institute for Fiscal Studies: London (Available at: http://www.iza.org/conference_files/worldb2013/ginja_r4328.pdf) [Accessed June 2, 2014].
21. Castro Aplabaza R, Cid Pedraza C, Roman A, Butela N (2006) 'Changing healthcare provider incentives to promote prevention: The Chilean case', *Harvard health policy review* 7(2):102–112. (Available at: https://www.wbginvestmentclimate.org/toolkits/health-in-africa-policy-toolkit/upload/Aplabaza_et_al.pdf) [Accessed May 18, 2014].
22. Centro de Sistemas Públicos (2013) 'Colaboración pública – salud', *Centro de sistemas públicos*. (Available at: <http://saludaps.colaboracionpublica.org/>) [Accessed May 19, 2014].
23. Centro de Sistemas Públicos (2014) 'Innovación en el sector público: La co-creación en la práctica', *Centro de sistemas públicos*. (Available at: <http://www.sistemaspublicos.cl/2014/04/01/innovacion-en-el-sector-publico-la-co-creacion-en-la-practica/>) [Accessed May 19, 2014].

24. Chávez Roca A (2014) 'Usuarios de 5 comunas entregan sugerencias a profesionales de la salud en Diálogo Ciudadano' *Chillán online noticias, Chillán*. (Available at: <http://portal.chillanonlinenoticias.cl/2014/07/usuarios-de-5-comunas-entregan-sugerencias-a-profesionales-de-la-salud-en-dialogo-ciudadano/>) [Accessed July 14, 2014].
25. Chile Crece Contigo (2013) 'Tercera encuesta nacional de implementación programa de apoyo al desarrollo biopsicosocial', Chile Crece Contigo: Santiago. (Available at: <http://www.crececontigo.gob.cl/wp-content/uploads/2013/07/3-Informe-final-Encuesta-nacional-implementación-programa-de-apoyo-al-desarrollo-biopsicosocial-2010.pdf>) [Accessed July 4, 2014].
26. Cid C and Prieto L (2012) 'El gasto de bolsillo en salud : El caso de Chile, 1997 y 2007' *Rev panam salud pública* 31(4):310–16.
27. Colección Municipal (2014) '5o concurso de buenas prácticas', Asociación Chilena de Municipalidades: Santiago. (Available at: <http://buenaspracticaps.cl/banco-de-practicaps/5o-concurso-de-buenas-practicaps-asociacion-chilena-de-municipalidades/>) [Accessed June 20, 2014].
28. Comisión ETESA (2013) 'Propuesta de un modelo de implementación e institucionalización de la evaluación de tecnologías sanitarias en Chile', Comisión Nacional de Evaluación de Tecnologías Sanitarias, Ministerio de Salud: Santiago. (Available at: <http://web.minsal.cl/sites/default/files/files/InformeFinalPropuestaETESACHile.pdf>) [Accessed May 16, 2014].
29. Comunidad de Prácticas en APS (nd) 'Comunidad de prácticas en APS'. (Available at: <http://buenaspracticaps.cl/>) [Accessed May 21, 2014].
30. Concha J (2011) 'Garantía de calidad en salud : El caso de las prestaciones "AUGE" Quality assurance in healthcare : The case of the system of explicit health guarantees', *Cuad méd soc* 51(3):123–28.
31. Consorcio Universitario de Salud y Medicina Familiar (nd) 'Fortaleciendo el modelo de Salud Familiar en Chile'. (Available at: <http://www.medfamiliar.cl/portalcursos/>) [Accessed May 21, 2014].
32. Contreras D and Ffrench-Davis R (2012) 'Policy regimes, inequality, poverty and growth', Working paper 2012/04. UNU World Institute for Development Economics Research: Finland. (Available at: <http://www.wider.unu.edu/stc/repec/pdfs/wp2012/wp2012-004.pdf>) [Accessed April 20, 2014].
33. Cunill-Grau N, Fernández M and Thezá Manríquez M (2013) 'La cuestión de la colaboración intersectorial y de la integralidad de las políticas sociales: Lecciones derivadas del caso del sistema de protección a la infancia en Chile', *Polis* 12(36):289–314. (Available at: <http://www.scielo.cl/pdf/polis/v12n36/art13.pdf>) [Accessed July 11, 2014].
34. Departamento de Estadísticas e Información de Salud (2010) 'Cobertura Pap vigente en mujeres beneficiarias de 25 a 64 años según regiones, Chile regiones/año', Ministerio de Salud: Santiago. (Available at: http://www.deis.cl/wp-content/uploads/2012/11/CoberturaPAP_Oficial_Region2010_2011.pdf).
35. Departamento de Estadísticas e Información de Salud (2013) 'Indicadores básicos de salud, Chile', Ministerio de Salud: Santiago. (Available at: <http://www.deis.cl/wp-content/uploads/2013/12/IBS-2013.pdf>) [Accessed May 21, 2014].
36. Departamento de Estadísticas e Información de Salud (2014a) 'Cobertura de vacunas país 2005-(2012)', Ministerio de Salud: Santiago. (Available at: http://www.deis.cl/?page_id=685) [Accessed April 30, 2014].
37. Departamento de Estadísticas e Información de Salud (2014b) 'Listado de establecimiento y estrategias de salud (pertenecientes y no pertenecientes al SNSS) año 2014' Ministerio de Salud: Santiago. (Available at: http://www.deis.cl/wp-content/uploads/2014/04/Base_Establecimientos_ChileDEIS_MINSAL2014-21-04-2014.xlsx) [Accessed April 14, 2014].
38. Departamento de Estadísticas e Información de Salud (2014c) 'Resumen estadísticos mensuales', Ministerio de Salud: Santiago. (Available at: <http://extranet.deis.cl/index.php/resumen-estadisticos-mensuales-deis>) [Accessed May 21, 2014].
39. Departamento de Salud Pública Pontificia Universidad Católica de Chile (2013) 'Chile Crece Contigo. Levantamiento y análisis de información sobre desarrollo infantil y sus principales determinantes sociales', Ministerio de Desarrollo Social: Santiago. (Available at: http://www.crececontigo.gob.cl/wp-content/uploads/2014/05/112013-INFORME-FINAL_Evaluación-PADB.pdf) [Accessed July 2, 2014].
40. Departamento de Salud Santa Bárbara (2014) 'Plan comunal de Salud Santa Bárbara 2014', IMunicipalidad de Santa Bárbara: Santa Bárbara. (Available at: http://transparencia.santabarbara.cl/pladeco/archivos/PLAN_COMUNAL_DE_SALUD_2014.pdf) [Accessed June 14, 2014].
41. Depaux R, Campodónico L, Ringeling I and Segovia I (2008) 'En el camino a centro de Salud Familiar', Ministerio de Salud: Santiago. (Available at: <http://medicina-familiar.cl/sitio/images/stories/camino.pdf>)
42. Depaux R (2013) 'Is family medicine responsive to current health problems and people's needs?' *Medwave* 13(03):e5644–e5644. (Available at: <http://www.mednet.cl/link.cgi/Medwave/Enfoques/SaludFamiliar/5644>) [Accessed April 27, 2014].
43. Dirección de Presupuesto (2014) 'Indicadores de desempeño', Subsecretaría de redes, Ministerio de Salud 3: Santiago. (Available at: http://www.dipres.gob.cl/595/articulos-112693_doc_pdf.pdf) [Accessed June 15, 2014].
44. Dirección de Salud Municipalidad de Coronel (2010) 'Programa de capacitación 2010, Dirección de Administración Salud. I.' Municipal Coronel: Coronel. (Available at: <http://www.coronel.cl/wp-content/uploads/transparencia/trans/transalud/02-organizacion-interna/programa-capacitacion-2010.pdf>) [Accessed May 20, 2014].
45. Dirección de Salud Peñalolén (2014) 'Plan de salud Peñalolén 2014', I. Municipalidad de Peñalolén: Santiago. (Available at: <http://cata.penalolen.cl/cormup/Plan de Salud 2014 pdf.pdf>) [Accessed June 14, 2014].
46. Dirección de Salud San Joaquín (2014) 'Plan de salud 2014 Comuna de San Joaquín', I. Corporación Municipal de Desarrollo Social de San Joaquín: Santiago. (Available at: http://sanjoaquin.saludable.cl/wp-content/uploads/2014/04/PLAN_SALUD_2014_AL_CONCEJO_MUNICIPAL.pdf) [Accessed June 8, 2014].
47. División de Atención Primaria/ Subsecretaría de Redes Asistenciales (2014) 'Índice de Actividad de la Atención Primaria (IAAPS). Orientación técnica y metodológica de evaluación', Ministerio de Salud: Santiago.
48. División de Municipalidades (2008) 'Glosario términos salud municipal' Unidad de Información Municipal, Departamento de Finanzas Municipales, División de Municipalidades:1–6. Subsecretaría de Desarrollo Regional y –Administrativo, Gobierno de Chile, Santiago. Available at: http://www.sinim.gov.cl/archivos/centro_descargas/Glosario_Terminos_Salud_Municipal.pdf.

49. Escuela de Salud Pública (2013) 'Estudio nacional de evaluación de percepción del trato a usuarios en establecimientos de salud municipal del sistema público de salud Informe final de resultados', Ministerio de Salud: Santiago. (Available at: http://web.minsal.cl/sites/default/files/INFORME_FINAL_TRATO_APS.pdf).
50. Facultad de Medicina Universidad de Chile (2005). 'Facultad de Medicina', Crean Consorcio Universitario de Salud y Medicina Familiar: Santiago. (Available at: <http://www.med.uchile.cl/2005/abril/1977-crean-consorcio-universitario-de-salud-y-medicina-familiar.html>; www.meduchile.cl).
51. FONASA (2014) 'Atención ambulatoria libre elección', Gobierno de Chile: Santiago. (Available at: <http://www.fonasa.cl/wps/wcm/connect/internet/sa-general/asegurados/plan+de+salud/atencion+ambulatoria+libre+eleccion/atencion+primaria+de+salud> [Accessed June 8, 2014].
52. Fondo Nacional de Salud (2014) 'Población inscrita en establecimientos de atención primaria de salud 2012'. (Available at: <http://www.deis.cl/wp-content/uploads/2013/04/poblaci?n-inscrita-FONASA-2012.xlsx>) [Accessed April 14, 2014].
53. Frenz P (2007) 'Innovative practices for intersectoral action on health: A case study of four programs for social equity: Chile Barrio, Chile Solidario, Chile Emprende, Chile Crece Contigo', Country Case Studies on Intersectoral Action for Health, WHO Commission on Social Determinants of Health: Geneva. Available at: http://www.who.int/social_determinants/resources/isa_4progs_social_equity_chile.pdf
54. Frenz P, Delgado I, Villanueva L et al. (2013a) 'Seguimiento de cobertura sanitaria universal en Chile entre 2000 y 2011 usando las Encuestas CASEN', *Rev med Chile* 141:1095–106. (Available at: <http://www.scielo.cl/pdf/rmc/v141n9/art01.pdf>)
55. Frenz P, Delgado I, Kaufman JS et al. (2013b) 'Achieving effective universal health coverage with equity: Evidence from Chile', *Health policy and planning* (1). (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23921988>) [Accessed April 29, 2014].
56. Fuentes L (2013) 'SIDRA Sistema de Información de la Red Asistencial' 16. Ministerio de Salud: Santiago. (Available at: <http://www.fonasa.cl/wps/wcm/connect/f3d7fcfc-1258-48b1-b098-c8c085af9e3a/Presentaci%C3%B3nJornadaSIDRA2013-+Lian+Fuentes.pdf?MOD=AJPERES>) [Accessed May 20, 2014].
57. Galasso E (2011) 'Alleviating extreme poverty in Chile: The short-term effects of Chile Solidario', *Estudios de economía* 38:101-129. (Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1876586).
58. Gideon J (2001) 'The decentralization of primary healthcare delivery in Chile', *Public administration and development* 21(3):223–31. (Available at: <http://doi.wiley.com/10.1002/pad.175>) [Accessed April 12, 2014].
59. Gilbert C (2012) 'Chilean Health Reform and the AUGE Plan: Lessons for the United States in Implementing PPACA', *Annals of health law* 21:38–51. (Available at: <http://luc.edu/media/lucedu/law/centers/healthlaw/pdfs/advancedirective/pdfs/8/gilbert.pdf>) [Accessed May 18, 2014].
60. Gitlin LN and Fuentes P (2012) 'The Republic of Chile: An upper middle-income country at the crossroads of economic development and aging', *Gerontologist* 52(3):297–305. (Available at: <http://gerontologist.oxfordjournals.org/content/52/3/297.long>) [Accessed May 15, 2014].
61. Gobierno de Chile (2014) *Chile Crece Contigo*. www.crececontigo.gob.cl, Ministerio de Desarrollo Social, Gobierno de Chile: Santiago. (Available at: <http://www.crececontigo.gob.cl/> [Accessed May 17, 2014].
62. Goyenechea M and Bass C (2013) 'Análisis del presupuesto 2013 para atención primaria ¿ estamos gastando lo necesario?' *Cuadernos médicos sociales* 53(1):26–32.
63. Iñiguez Sn (2013) 'RRHH en APS' in *VIII congreso de salud municipal: Castro*. (Available at: <http://www.slideshare.net/drjoseluiscontreras/rrhh-aps>).
64. Instituto Nacional de Derechos Humanos (2011) 'Primera encuesta nacional de derechos humanos', Instituto Nacional de Derechos Humanos: Santiago. (Available at: <http://www.indh.cl/wp-content/uploads/2011/11/Encuesta-Final-D.H-web.pdf>) [Accessed June 9, 2014].
65. Instituto Nacional de Estadísticas (2013) 'Compendio Estadístico 2013', Instituto Nacional de Estadísticas de Chile: Santiago. (Available at: http://www.ine.cl/canales/menu/publicaciones/calendario_de_publicaciones/pdf/COMPENDIO_2013.pdf). [Accessed June 7, 2014].
66. Instituto Nacional de Estadísticas and Comisión Económica para América Latina y El Caribe (2008) 'Chile: Proyecciones y estimaciones de población. Total País', CEPAL: Santiago. (Available at: http://www.ine.cl/canales/chile_estadistico/demografia_y_vitales/proyecciones/Informes/Microsoft Word - InforP_T.pdf).
67. Ipinza M (2004) 'Como solucionar el déficit de médicos en los consultorios urbanos' *Cuadernos médicos sociales* 44(2):73–80.
68. Jiménez de la Jara J and Bossert T (1995) 'Chile's health sector reform: Lessons from four reform periods', *Health policy* 32(1-3):155–66. (Available at: <http://linkinghub.elsevier.com/retrieve/pii/0168851095007339>).
69. Kuhn Barrientos L and Castillo Riquelme M (2013) 'Atención primaria de salud en Chile: Mecanismos de financiamiento y consideraciones de equidad', *Economía y salud* 7(2):14–21. (Available at: <http://desal.minsal.cl/wp-content/uploads/2013/09/9751-Boletin-Econom%C3%ADa-y-Salud-WEB.pdf>) [Accessed May 29, 2014].
70. Lenz R (2007) 'Proceso político de la reforma AUGE de salud en Chile: Algunas lecciones para América Latina. Una mirada desde la economía política', Serie Estudios Socio / Económicos 38. Corporación de estudios para Latinoamérica: Santiago.
71. Loewenson R, Simpson S and Nolen A (2014) 'Synthesis and analysis of evidence on promising primary care practice: Learning from high- and middle-income countries to address challenges and opportunities in the USA', Training and Research Support Centre
72. Mansilla C (2013) 'Hacia una mejor atención primaria de salud: Aspectos críticos de una buena gestión', Pontificia Universidad Católica de Chile: Santiago. (Available at: <http://repositorio.uc.cl/xmlui/bitstream/handle/123456789/1823/610694.pdf?sequence=1>) [Accessed May 27, 2014].
73. Mansilla C, Montero J, Majluf N and Rojas MP (2013) 'Comparison of regional data of effectiveness of treatment of hypertension according to the National Health Survey (Chile) and the monthly statistical reports', *Revista médica de Chile* 141(9):1222–3. (Available at: http://www.scielo.cl/scielo.php?script=sci_arttextandpid=S0034-98872013000900020andlng=esandnrm=isoandtlng=es) [Accessed June 1, 2014].
74. Manuel A (2002) 'The Chilean health system: 20 years of reforms', *Salud pública de México* 44(1):60–8. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/11910721>).
75. Mardones-Restart F and de Azevedo AC (2006) 'The essential health reform in Chile: A reflection on the 1952 process', *Salud pública de México* 48(6):504–11. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17326347>).

76. Marín PP, Villalobos A, Carrasco M, Kalache A.(2005). 'Resultados generales del Proyecto INTRA-OMS en Chile', *Rev méd Chile* (133):331–37.
77. Martínez J (2010) 'Characteristics and perceptions of Chilean medical students when deciding their future career. What do they think about Family Medicine?' University of Washington: Seattle. Available at: http://books.google.cl/books/about/Characteristics_and_Perceptions_of_Chile.html?id=GJLFZwEACAAJandredir_esc=y.
78. Matute I (2012) 'Diagnósticos regionales con enfoque DSS. Informativo', 32. Ministerio de Salud: Santiago. Available at: <http://epi.minsal.cl/estudios-y-encuestas-poblacionales/diagnosticos-regionales/>.
79. Mendez C and Vanegas J (2010) 'La participación social en salud: El desafío de Chile', *Rev panam salud pública* 27(9):144–48.
80. Mercado R (2010) 'Caracterización y análisis del perfil de derivaciones de un centro de Salud Familiar al nivel secundario', Thesis for program of specialization in Family Medicine, Pontificia Universidad Católica de Chile: Santiago.
81. Meyer PJ (2014) 'Chile: Political and economic conditions and U.S. relations', Congressional Research Service: Washington DC. (Available at: <http://www.fas.org/sgp/crs/row/R40126.pdf>) [Accessed April 20, 2014].
82. Ministerio de Desarrollo Social (2011) 'Indicadores de Pobreza', CASEN. (Available at: http://observatorio.ministeriodesarrollosocial.gob.cl/layout/doc/casen/publicaciones/2011/pobreza_casen_2011.pdf).
83. Ministerio de Desarrollo Social (2012) 'Salud', Informe de política social: Santiago. (Available at: http://www.ministeriodesarrollosocial.gob.cl/ijos-2012/media/ijos_2012_pp_94-125.pdf) [Accessed June 12, 2014].
84. Ministerio de Desarrollo Social (2014) 'Catálogo de prestaciones 2014', Programa de Apoyo al Desarrollo Biopsicosocial (PADBP) y Programa de Apoyo al Recién Nacido(a) (PARN): Santiago.
85. Ministerio de Hacienda (1974) 'Fija escala única de sueldos para el personal que señala', Biblioteca del Congreso Nacional: Valparaíso.
86. Ministerio de Medio Ambiente (2013) 'Plan nacional de adaptación cambio climático', Ministerio del Medio Ambiente: Santiago. (Available at: http://www.mma.gob.cl/1304/articulos-55412_Plan_NacionalAdaptacionCClimatico.pdf) [Accessed June 3, 2014].
87. Ministerio de Planificación (2009) *Ley 20.379 Crea el sistema intersectorial de protección social e institucionaliza el subsistema de protección integral a la infancia*, Crece Contigo Chile. Biblioteca del Congreso Nacional: Valparaíso. (Available at: <http://www.leychile.cl/Navegar?idNorma=1006044>) [Accessed May 16, 2014].
88. Minoletti A and Zaccaria A (2005) 'Plan nacional de salud mental en Chile : 10 años de experiencia', *Revista panamericana de salud pública = Pan American journal of public health* 18(4/5):346–58.
89. MINSAL (Ministerio de Salud) (1995) 'Establece estatuto de atención primaria de salud municipal', Biblioteca del Congreso Nacional: Valparaíso. (Available at: <http://www.leychile.cl/N?i=30745andf=2008-02-09andp=>).
90. MINSAL (1999) 'Ley 19650 perfecciona normas del área de la salud', Biblioteca del Congreso Nacional: Valparaíso.
91. MINSAL (2002) 'Los objetivos sanitarios para la década 2000-2010', Ministerio de Salud: Santiago.
92. MINSAL (2004) 'Ley 19966 establece un régimen de garantías en salud', Biblioteca del Congreso Nacional de Chile: Valparaíso. (Available at: <http://www.leychile.cl/N?i=229834andf=2004-09-03andp=>).
93. MINSAL (2006) *Decreto Fuerza de Ley N° 1 Fija texto refundido, coordinado y sistematizado del Decreto Ley N° 2.763, de 1979 y de las Leyes N° 18.933 y N° 18.469*, Biblioteca del Congreso Nacional: Valparaíso. (Available at: <http://www.leychile.cl/Navegar?idNorma=249177>) [Accessed May 18, 2014].
94. MINSAL (2007a) 'Modifica el decreto con fuerza de ley N°1, de 2005, del Ministerio de Salud, la ley N°19.490, se delegan facultades para fijar y modificar las plantas de personal que indica y otros beneficios para el personal de los servicios de salud', Biblioteca del Congreso Nacional: Valparaíso.
95. MINSAL (2007b) 'Resumen ejecutivo estudio carga de enfermedad y carga atribuible', Ministerio de Salud: Santiago. (Available at: http://epi.minsal.cl/epi/html/invest/cargaenf2008/Informe_final_carga_Enf_2007.pdf) [Accessed June 7, 2014].
96. MINSAL (2008a) 'Informe final estudio de carga de enfermedad y carga atribuible', Ministerio de Salud: Santiago.
97. MINSAL (2008b) 'Manual de apoyo a la implementación de centros comunitarios de Salud Familiar', Ministerio de Salud: Santiago.
98. MINSAL (2009a) 'Estudio de preferencias sociales para la definición de garantías explícitas en salud', Ministerio de Salud: Santiago. (Available at: http://epi.minsal.cl/epi/html/invest/if_estudio_preferencias_sociales_ges_2009.pdf) [Accessed June 9, 2014].
99. MINSAL (2009b) 'Pauta de certificación centros de Salud Familiar', Ministerio de Salud: Santiago.
100. MINSAL (2009c) 'Resolución exenta 168: Establece norma general de participación ciudadana en la gestión pública del sistema nacional de servicios de salud', Ministerio de Salud: Santiago.
101. MINSAL (2009d) 'Implementación del enfoque de riesgo en el Programa de Salud Cardiovascular', 46 Ministerio de Salud: Santiago. (Available at: <http://web.minsal.cl/portal/url/item/787e4765248bc9e0e04001011f0172b5.pdf>).
102. MINSAL (2010a) 'Encuesta nacional de salud 2009-2010', Ministerio de Salud: Santiago. Available at: http://epi.minsal.cl/wp-content/uploads/2012/07/Informe-ENS-2009-2010.-CAP-5_FINALv1julioceppi.pdf.
103. MINSAL (2010b) 'Evaluación de los objetivos sanitarios de la década 2000-2010. Evaluación de final de período.' Ministerio de Salud: Santiago. (Available at: <http://epi.minsal.cl/epi/html/sdesalud/OS/EvaluacionObjetivosSanitarios2000-2010.pdf>) [Accessed May 20, 2014].
104. MINSAL (2010c) 'Guía clínica hipertensión arterial primaria o esencial en personas de 15 años y más', Ministerio de Salud: Santiago. (Available at: <http://web.minsal.cl/portal/url/item/7220fdc4341c44a9e04001011f0113b9.pdf>).
105. MINSAL (2011a) 'Estrategia nacional de salud para el cumplimiento de los objetivos sanitarios de la década 2011-2020', Ministerio de Salud: Santiago. (Available at: <http://web.minsal.cl/portal/url/item/c4034eddb9c6ca6de0400101640159b8.pdf>).
106. MINSAL (2011b) 'Panorama de salud 2011. Informe sobre Chile y comparación con países miembros', Ministerio de Salud: Santiago. (Available at: http://web.minsal.cl/portal/docs/page/minsalcl/g_general/elementos/oecdch12011.pdf) [Accessed June 21, 2014].
107. MINSAL (2012a) *Ley 20.584 Regula los derechos y deberes que tienen las personas en relación a acciones vinculadas a su atención de salud*, Biblioteca del Congreso Nacional: Valparaíso. (Available at: <http://www.minsal.gob.cl/portal/url/item/cbb3d986537436a2e040010165015aa4.pdf>).

108. MINSAL (2012b) 'Orientaciones para la implementación del modelo de atención integral de Salud Familiar y comunitaria. Dirigido a equipos de salud', Ministerio de Salud: Santiago (Available at: <http://web.minsal.cl/portal/url/item/e7b24eef3e5cb5d1e0400101650128e9.pdf>) [Accessed April 19, 2014].
109. MINSAL (2013a) 'Guía clínica AUGE Salud oral integral para niños y niñas de 6 años'. Ministerio de Salud: Santiago.
110. MINSAL (2013b) 'Situación actual del embarazo adolescente en Chile', Ministerio de Salud: Santiago. (Available at: <http://web.minsal.cl/portal/url/item/c908a2010f2e7d-afe040010164010db3.pdf>).
111. MINSAL (2014a). *Decreto 82. Determina aporte estatal a municipalidades que indica para sus entidades administradoras de salud municipal por periodo que señala*, Biblioteca del Congreso Nacional de Chile: Valparaíso. (Available at: <http://www.leychile.cl/Navegar?idNorma=1049093>).
112. MINSAL (2014b) *Decreto N° 71 Crea Comisión Asesora Presidencial para el estudio y propuesta de un nuevo Régimen Jurídico para el Sistema Privado de Salud, Chile*. Ministerio de Salud: Santiago (Available at: <http://www.cumplimiento.gob.cl/wp-content/uploads/2014/03/Decreto-Comision-Asesora-Presidencial-Isapres.pdf>) [Accessed May 4, 2014].
113. MINSAL (2014c) 'Guías clínicas AUGE', Ministerio de Salud: Santiago (Available at: web.minsal.cl/AUGE_guias_clinicas) [Accessed May 14, 2014].
114. MINSAL (2014d) *Ley 20.274 Modifica el Código Sanitario en materia de regulación de farmacias y medicamentos*, Biblioteca del Congreso Nacional de Chile: Valparaíso. (Available at: <http://www.leychile.cl/Navegar?idNorma=1058373>).
115. MINSAL (2014e) 'Más enfermedades AUGE 80', Ministerio de Salud: Santiago (Available at: <http://web.minsal.cl/portal/url/item/e03c41d3232c00ffe0400101640175e6.pdf>) [Accessed May 13, 2014].
116. MINSAL (2014f) 'Salud-e Estrategia Digital de Salud', Ministerio de Salud: Santiago. (Available at: <http://www.salud-e.cl/plan/situacion-actual/>) [Accessed May 22, 2014].
117. MINSAL (nd) 'Programa de aprendizaje autogestionado', Ministerio de Salud: Santiago (Available at: <http://minsal.uvirtual.cl/siminsal/index.php>). (accessed 23 July 2014).
118. MINSAL and Universidad de Chile (2005) 'Informe final estudio de evaluación en profundidad del Programa de Reforzamiento de la atención primaria de salud', Ministerio de Hacienda: Santiago.
119. Ministerio del Interior de Chile (1990) 'Decreto 680 aprueba instrucciones para el establecimiento de oficinas de información para el público usuario en la administración del Estado', Ministerio del Interior: Santiago.
120. Ministerio Secretaría General de la Presidencia (2005) 'Decreto 100 Fija el texto refundido, coordinado y sistematizado de la Constitución Política de la República de Chile', Biblioteca del Congreso Nacional de Chile: Valparaíso. (Available at: [file:///C:/Users/Patricia/Downloads/DTO-100_22-SEP-2005 \(1\).pdf](file:///C:/Users/Patricia/Downloads/DTO-100_22-SEP-2005%20(1).pdf)) [Accessed May 18, 2014].
121. Ministerio Secretaría General de la Presidencia (2008) *Ley de Transparencia y acceso a la información pública*. (Available at: <http://www.leychile.cl/Navegar?idNorma=276363>).
122. Molina H (2014) 'Situación actual y desafíos de la atención primaria' in C de PP UC (ed.) *Fortalecimiento de la atención primaria de salud: Propuestas para mejorar el sistema sanitario chileno*. Santiago. (Available at: http://politicaspUBLICAS.uc.cl/cpp/static/uploads/adjuntos_seminarios/adjuntos_seminario_archivo_adjunto_a19ab1aad11e5fa6.50726573656e74616369c3b36e2d4d696e69737472612048656c6961204d6f6c696e612e706466.pdf) [Accessed May 10, 2014].
123. Montecinos V (1998) *Chile's innovations in social welfare: Principles and policies*, Carnegie Council: New York. Available at: https://www.carnegiecouncil.org/publications/archive/public_philosophy/256.html/res/id=sa_File1/256_258_mont2.pdf [Accessed April 22, 2014].
124. Montero J (2010) 'El recurso humano médico en la APS. Algunos aspectos críticos', Pontificia Universidad Católica de Chile: Santiago. Available at: http://www.munitel.cl/eventos/seminarios/html/DOCUMENTOS/2010/SIMPOSIO_DE_RECursos_HUMANOS_EN_LA_APS_MUNICIPAL/PPT05.pdf
125. Montero J, Poblete F, Torche A and Vargas V (2008) 'Análisis del modelo de asignación financiera en la atención primaria chilena: Pertinencia del per cápita actual y uso de variables en su cálculo para asegurar concordancia entre la situación epidemiológica actual y el modelo de atención', *Concurso políticas públicas: Camino al Bicenario, propuestas para Chile*, 73–94. (Available at: http://politicaspUBLICAS.uc.cl/cpp/static/uploads/adjuntos_publicaciones/adjuntos_publicacion.archivo_adjunto.96b6e6152602e410.436170c3ad-74756c6f_20335f3038202d204174656e6369c3b36e205072696d617269612064652053616c75642e706466.pdf).
126. Montero J, Téllez A and Herrera C (2010) 'Reforma sanitaria chilena y la atención primaria de salud. Algunos aspectos críticos, Temas de la agenda pública', Centro de políticas públicas UC 1-12(38).
127. Montoya-Aguilar C et al. (2014) 'Culmina el primer ciclo de la formación de especialistas para la atención primaria y el sistema pública de atención de salud. ¿Qué hacer en adelante?' *Rev Chil salud pública* 18(1):25–32. (Available at: <http://www.revistasaludpublica.uchile.cl/index.php/RCSP/article/viewFile/30749/32497>).
128. Moraga C (2009) 'Visita domiciliaria integral para el desarrollo biopsicosocial de la infancia', Chile Crece Contigo and Ministerio de Salud: Santiago.
129. Morales (J (2008) 'Implementación y medición del efecto de una intervención telefónica sobre el acceso y la continuidad de la atención médica en un Centro de Salud Familiar', Tesina de becado de Medicina Familiar. Departamento de Medicina Familiar, Pontificia Universidad Católica de Chile: Santiago.
130. Murray SF and Elston MA (2005) 'The promotion of private health insurance and its implications for the social organisation of healthcare: A case study of private sector obstetric practice in Chile', *Sociology of health and illness* 27(6):701–21. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/16283895>) [Accessed May 10, 2014].
131. Nancuante Almonacid U. and Romero Celedón A (2008) 'La reforma de la salud Primera', Instituto de Políticas Públicas y Gestión Salud y Futuro: Santiago.
132. Narbona K and Durán G (2009) Caracterización del Sistema de Salud Chileno : Enfoque Laboral', Sindical e Institucional: Santiago.
133. Nazzal NC, Campos TP, Corbalán HR, Lanás ZF, Bartolucci JJ, Sanhueza CP, Cavada CG and Prieto DJC (2008) 'Impacto del plan AUGE en el tratamiento de pacientes con infarto agudo al miocardio con supradesnivel ST, en hospitales chilenos,' *Revista médica de Chile* 136(10):1231–39. 134. OECD (2013a) 'Health at a glance 2013: OECD Indicators', OECD Publishing. (Available at: <http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf>) [Accessed May 14, 2014].
134. OECD (2013a) 'Health at a glance 2013: OECD Indicators', OECD Publishing. (Available at: <http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf>) [Accessed May 14, 2014].

135. OECD (2013b) 'How does Chile compare?' OECD Health Statistics. (Available at: <http://www.oecd.org/els/health-systems/Briefing-Note-CHILE-2013-in-Spanish.pdf>).
136. OECD (2014a) 'How does Chile compare?' OECD Health Statistics. (Available at: <http://www.oecd.org/els/health-systems/Briefing-Note-CHILE-2014.pdf>) [Accessed July 4, 2014].
137. OECD (2014b) 'OECD Statistics'. (Available at: <http://www.oecd.org/statistics/>) [Accessed April 22, 2014].
138. OECD (2014c) 'Society at a glance 2014: OECD Social Indicators', OECD Publishing. (Available at: <http://www.oecd.org/els/soc/OECD2014-SocietyAtAGlance2014.pdf>).
139. Organización Panamericana de la Salud (2013) '1era innovación en Atención Primaria de Salud', PAHO: Washington DC. (Available at: http://www.paho.org/chi/index.php?option=com_contentandview=articleandid=546:1era-innovaton-en-atencion-primaria-de-saludandItemid=300) [Accessed May 19, 2014].
140. Orrego C, Puschel K, Arancibia E, Contreras JL, Fábrega R, Infante A, Irrarázaval I, Inostroza M, Iñiguez S, Montero J, Santelices E, Segovia I, Téllez A, Tello C, Villaseca P (2014) 'Fortalecimiento de la atención primaria de salud: Propuestas para mejorar el sistema sanitario chileno' in S Brahm (ed.) *Temas de la Agenda Pública*. Centro de Políticas Públicas UC 9(67):21.
141. Ortiz L and Pérez D (2014) 'Chile and Costa Rica : Different roads to universal health in Latin America', Municipal Services Project Occasional paper 23. Series editors: David A. McDonald and Greg Ruiters. (Available at: <http://www.municipalservicesproject.org/publication/chile-and-costa-rica-different-roads-universal-health-latin-america>) [Accessed May 22, 2014].
142. Pacheco J (2012) 'Utilización de tecnologías de la información y comunicación (TICS) en atención primaria: Derivación electrónica por Galileo', *Primera jornada de buenas prácticas en APS y Salud Familiar*: Concepcion 1–3. [fgf?artid=3544610andtool=pmcentrezandrendertype=abstract](http://www.fcgf.org/fgf?artid=3544610andtool=pmcentrezandrendertype=abstract) [Accessed April 28, 2014].
143. Paraje G and Vásquez F (2012a) 'Health equity in an unequal country: The use of medical services in Chile', *International journal for equity in health* 11:81. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3544610andtool=pmcentrezandrendertype=abstract>) [Accessed April 28, 2014].
144. Paraje G and Vásquez F (2012b) 'Health equity in an unequal country: The use of medical services in Chile', *International journal for equity in health* 11:81. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3544610andtool=pmcentrezandrendertype=abstract>) [Accessed February 25, 2013].
145. Pardo C and Schott W (2014) 'Health insurance selection in Chile: A cross-sectional and panel analysis', *Health policy planning* 29(3):302–12. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23558960>) [Accessed April 28, 2014].
146. Peña S, Ramirez J, Becerra C, Carabantes J and Arteaga O (2010) 'The Chilean rural practitioner programme: A multidimensional strategy to attract and retain doctors in rural areas', *Bulletin of the World Health Organization* 88(5):371–78. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2865660andtool=pmcentrezandrendertype=abstract>) [Accessed May 17, 2014].
147. Peñaloza B, Leisewitz T, Bastias G, Zárate V, Depaux R, Villarroel L (2010) 'Metodología para la evaluación de la relación costo-efectividad en centros de atención primaria de Chile', *Rev panam salud pública* 28(5):376–87.
148. Presidencia (2008) 'Instructivo presidencial para la participación ciudadana en la gestión pública', Chile. (Available at: <http://www.gobiernotransparente.cl/asistente/oficios/InstPres-participacion-ciudadana.pdf>).
149. Programa de las Naciones Unidas para el Desarrollo (2009) 'Garantizar derechos en salud: La complejidad de cambiar', in *Desarrollo humano en Chile. La manera de hacer las cosas*, Programa de las Naciones Unidas para el Desarrollo: Santiago, 70–87. (Available at: http://www.desarrollohumano.cl/informe-2009/pnud_2009.pdf) [Accessed June 3, 2014].
150. Puryear J (1994) *Thinking politics: Intellectuals and democracy in Chile, 1973-1988*, Johns Hopkins University Press: Baltimore. (Available at: <http://books.google.com/books?id=CVtGhEw8XSUCandpgis=1>) [Accessed May 14, 2014].
151. Puschel K and Thompson B (2012) 'Mammogram screening in Chile: Using mixed methods to implement health policy planning at the primary care level', *Breast* 20(Suppl 2):1–13.
152. Puschel K, Rojas P, Erazo A, Thompson B, Lopez J and Barros J (2013) 'Hacia un nuevo modelo de atención primaria en salud: Evaluación del Proyecto de Salud Familiar ANCORA UC', *Estudios públicos* 130(otoño):23–52.
153. Puschel K, Téllez A, Montero J, Brunner A, Peñaloza B, Rojas MP, Poblete F and Pantoja T (2014) 'Social accountability of medical schools and academic primary care training in Latin America: Principles but not practice', *Family practice* 31(4):399–408. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24755665>) [Accessed May 9, 2014].
154. Quiróz A (2009) 'Como implementar y expandir innovaciones en salud en el proyecto ANCORA. Tesina', Programa de Especialización Medicina Familiar. Pontificia Universidad Católica de Chile: Santiago.
155. Ramírez Chávez MA (2012) 'Incentivos para personal de salud en la Atención Primaria de Salud en Chile : Un desafío en desarrollo', Observatorio Regional de Recursos Humanos en Salud. Organización Panamericana de la Salud :Santiago. (Available at: http://www.observatoriorh.org/sites/default/files/webfiles/fulltext/estudio_caso_chile.pdf).
156. Raña KJ, Ferrer O J-C and Bedregal GP (2007) 'Modelo de asignación de recursos en Atención Primaria', *Revista médica de Chile* 135(1):54–62. (Available at: http://www.scielo.cl/scielo.php?script=sci_arttextandpid=S0034-98872007000100008andlng=esandnrm=isoandtlng=es) [Accessed May 29, 2014].
157. Ranis G and Stewart F (2002) 'Economic growth and human development in Latin America', *Cepal review* (Diciembre):7–24. (Available at: <http://www.eclac.cl/publicaciones/xml/2/19952/lcg2187i-Ranis.pdf>) [Accessed May 3, 2014].
158. Red de Salud UC Christus (2014) 'Red de salud ancora UC'. (Available at: <http://redsalud.uc.cl/ucchristus/medicina-familiar/investigacion-docencia-medfam.act>) [Accessed: July 23, 2014].
159. Rojas G, Fritsch R, Solis J, Jadresic E, Castillo C, González M, Guajardo V, Lewis G, Peters TJ and Araya R (2007) 'Treatment of postnatal depression in low-income mothers in primary-care clinics in Santiago, Chile: A randomised controlled trial', *Lancet* 370(9599):1629–37. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17993363>).
160. Rojas, MP, Scharager J, Erazo A, Puschel K, Isabel M and Gonzalo H (2011) 'Estimación de brechas de especialistas en medicina familiar para la Atención Primaria chilena. Concurso políticas públicas propuestas para Chile. Pontificia Universidad Católica de Chile.

161. Román O and Muñoz F (2008) 'Una mirada crítica en torno al plan AUGE. Algunos aspectos generales y valóricos', *Rev méd Chile* 136:1599–1603.
162. Romero Strooy L (2011) 'Modelos y mecanismos de financiamiento en sistemas de salud', Superintendencia de Salud: Santiago (Available at: <http://www.supersalud.gob.cl/documentacion/569/Presentaciones/Chile.pdf>) [Accessed May 18, 2014].
163. Saavedra-Dahm O, Solar P, Díaz H, Mandel A, Casado M, Orihuela P, Rivera M, Velásquez L and Cardenas H (2012) 'La heterogeneidad del alfabetismo en salud y el consentimiento informado en Chile. *Terapia psicológica* 30(3):127–31. (Available at: http://www.scielo.cl/scielo.php?script=sci_arttextandpid=S0718-48082012000300012andlng=esandnrm=isoandlng=es) [Accessed July 14, 2014].
164. Salgado O (2012) 'Foro internacional de APS y redes integradas', Presentación. OPS Colombia: Bogotá. (Available at: <http://www.slideshare.net/OPSColombia/aps-en-chile#>) [Accessed May 15, 2014].
165. Salinas J, Correa F and Vio del R F (2013) 'Marco normativo para promover una alimentación saludable en escuelas básicas de Chile', *Revista Chilena de nutrición* 40(3): 274–82. (Available at: http://www.scielo.cl/scielo.php?script=sci_arttextandpid=S0717-75182013000300010andlng=esandnrm=isoandlng=es) [Accessed June 8, 2014].
166. Sandoval D, Bravo M, Koch E, Gatica S, Ahlers I, Henríquez O, Romero T (2012) 'Overcoming barriers in the management of hypertension: The experience of the cardiovascular health program in Chilean primary healthcare centers', *International journal of hypertension* (Article ID 404892):1–8. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3373127andtool=pmcentrezandrender-type=abstract>) [Accessed March 27, 2014].
167. Sandoval Orellana H (2004) 'Mejor salud para los chilenos. Fundamentos sanitarios, políticos y financieros de la necesidad y oportunidad de hacer una reforma al sistema de salud chileno', *Cuadernos médicos sociales* 43(1):5–20.
168. Santelices E (2012) 'Competitiveness of public hospitals in Chile', Global Health Leadership Forum, October 5-9, 2012: London. (Available at: [http://ghlf.berkeley.edu/Prereadings/LondonGHLF/Participant Presentations/Emilio Santelices.pdf](http://ghlf.berkeley.edu/Prereadings/LondonGHLF/Participant%20Presentations/Emilio%20Santelices.pdf)).
169. Senado (2013) 'Integración vertical será analizada en el marco de la Ley de Isapres', *Boletín de noticias del Senado*: N°8792(11). (Available at: http://www.senado.cl/integracion-vertical-sera-analizada-en-el-marco-de-la-ley-de-isapres/prontus_senado/2013-02-04/173748.html) [Accessed July 10, 2014].
170. Siskind D, Araya R and Kim J (2010) 'Cost-effectiveness of improved primary care treatment of depression in women in Chile', *British journal of psychiatry : The journal of mental science* 197(4):291–96. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20884952>) [Accessed April 28, 2014].
171. Sojo A (2006) 'Health benefits guarantees in Latin America: Equity and quasi-market restructuring at the beginning of the Millennium', Serie studios y perspectivas 51. Sede subregional de la CEPAL en México, United Nations Publications: México.
172. Sojo A (2011) 'Condiciones para el acceso universal a la salud en América Latina: Derechos sociales, protección social y restricciones financieras y políticas', *Ciência and saúde coletiva* 16(6):2673–85.
173. Stranges E and Stocks C (2010) 'Potentially preventable hospitalizations for acute and chronic conditions', Statistical Brief 99, November 2010. Agency for Healthcare Research and Quality: Rockville. Available at: <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb99.pdf>.
174. Subsecretaría de Desarrollo Regional y Administrativo (nd), 'Sistema Nacional de Información Municipal', Subsecretaría de Desarrollo Regional y Administrativo: Santiago. (Available at: http://www.sinim.gov.cl/desarrollo_local/datos_municipales/datos2012.php) [Accessed May 15, 2014].
175. Subsecretaría de Redes Asistenciales (2013a) 'Orientaciones para la implementación del modelo de atención integral de Salud Familiar y comunitaria dirigido a equipos de salud', Ministerio de Salud, Subsecretaría de Redes Asistenciales, División de Atención Primaria: Santiago.
176. Subsecretaría de Redes Asistenciales (2013b). 'Orientaciones para la planificación y programación en red año 2014', Ministerio de Salud, Subsecretaría de Redes Asistenciales, División de Atención Primaria: Santiago.
177. Superintendencia de Salud (2012) 'Informe de fiscalización, Monitoreo de la Garantía de Oportunidad Sector Público – 1° Trimestre 2012.
178. Superintendencia de Salud (2013a) 'Estadísticas genéricas de prestadores individuales de salud. Período: 1 de abril de 2009 al 30 de septiembre de 2013', Superintendencia de Salud: Santiago. (Available at: http://www.supersalud.gob.cl/documentacion/569/articles-8352_recurso_1.pdf).
179. Superintendencia de Salud (2013b) 'Estudio de opinión a usuarios del sistema de salud, reforma y posicionamiento de la Superintendencia de Salud'. (Available at: http://www.supersalud.gob.cl/portal/articles-9185_recurso_1.pdf) [Accessed June 3, 2014].
180. Superintendencia de Salud (2014) 'Registro de prestadores acreditados', Superintendencia de Salud: Santiago. (Available at: <http://www.supersalud.gob.cl/acreditacion/567/w3-propertyvalue-4258.html>) [Accessed July 13, 2014].
181. Talcahuano S de S (2012) 'Gobierno transparente - Mecanismos de participación', Ciudadana. Servicio de Salud Talcahuano: Talcahuano. (Available at: <http://transparencia.redsalud.gov.cl/transparencia/public/sstalcahuano/ciudadana.html>).
182. Tamayo M and Rebolledo J (2011) 'Garantía de oportunidad, artrosis y autorreporte de salud en personas con artrosis en una comuna de la región metropolitana', *Rev méd Chile* 139:1617–23.
183. Tanahashi, T (1978) 'Health service coverage and its evaluation,' *Bulletin WHO* 56(2):295-303.
184. Téllez A (2006) 'Atención primaria : Factor clave en la reforma al sistema de salud reforma al sistema de salud', Temas de la Agenda Pública, año 1/n°2/agosto 2006. Dirección de Asuntos Públicos, Pontificia Universidad Católica de Chile: Santiago.
185. Téllez Á and Aguayo E (2008) 'Results of a private primary health system based on a family healthcare model in Chile', *Rev méd Chile* 136:873–79.
186. Tobar J, Cabrera S, Núñez P, Vasallo C and Guerrero JL (2012) 'Mercado de la salud privada en Chile', Estudio solicitado por Fiscalía Nacional Económica: Valparaíso. (Available at: <http://www.fne.gob.cl/wp-content/uploads/2012/11/INFORME-PUCV-MERCADO-SALUD.pdf>) [Accessed May 16, 2014].
187. UNDP (2013) *Human development report 2013. The rise of the South: Human progress in a diverse world*, UNDP: New York. (Available at: http://hdr.undp.org/sites/default/files/reports/14/hdr2013_en_complete.pdf) [Accessed May 3, 2014].
188. Unger J-P, De Paepe P, Solimano Cantuarias G and Arteaga Herrera O (2008) 'Chile's neoliberal health reform: An assessment and a critique', *PLoS medicine* 5(4):e79. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2276520andtool=pmcentrezandrender-type=abstract>) [Accessed February 28, 2013].

189. Urrutia M, Poupin L, Concha X, Viñales D, Iglesias C and Reyes V (2008) '¿Por qué las mujeres no se toman el Papanicolau?: Barreras percibidas por un grupo de mujeres ingresadas al programa de cancer cervicouterino AUGE', *Rev Chil obstet ginecol* 73(2):98–103.
190. Urrutia M, Villegas N and Poupin L (2010) 'Conocimiento y fuentes de información en un grupo de mujeres del programa AUGE cancer cérvico uterino', *Rev Chil obstet ginecol* 75(4):221–26.
191. Vargas V and Poblete S (2008) 'Health prioritization: The case of Chile', *Health affairs* (Project Hope) 27(3):782–92. (Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18474972>) [Accessed December 2, 2012].
192. Vargas V and Wasem J (2006) 'Risk adjustment and primary healthcare in Chile', *Croatian medical journal* 47(3):459–68. (Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2080435&tool=pmcentrez&render-type=abstract>).
193. Vasquez H (2012) 'Estrategia "Salud en tu casa": Redefinición de la APS en la comuna de Curarrehue', *Cuadernos médico-sociales* 52(2):11–26.
194. Vega J (2011) 'Steps towards the health equity agenda in Chile' in *World conference on social determinants of health*: Río de Janeiro.
195. Vergara C (2012) 'Desafíos para la creación de una Comunidad de Buenas Prácticas en APS y sus sistemas. Experiencia en Chile', Presentación. Noveno Congreso Regional de Información en Ciencias de la Salud – CRICS9: Washington DC. (Available at: <http://programa.crics9.org/es/Speaker/cristian-vergara/>).
196. Waissbluth M (2011) 'Resumen proyecto sistema de gestión del conocimiento para la transferencia de innovaciones y buenas prácticas de gestión entre gobiernos locales', Departamento de Ingeniería Industrial, Universidad de Chile: Santiago. (Available at: <http://www.dii.uchile.cl/wp-content/uploads/2011/07/resumen-Fondef-CSP-Mario-Waissbluth.pdf>).
197. World Bank (2014) *World development indicators. Data Chile*. The World Bank Group: Washington DC. (Available at: <http://data.worldbank.org/country/chile>) [Accessed April 20, 2014].
198. WHO (World Health Organization) (2013) 'Global health observatory data repository. Mortality: All NCDs, deaths per 100,000 - Data by country' WHO: Geneva. (Available at: <http://apps.who.int/gho/data/node.main.A863?lang=en>) [Accessed May 9, 2014].
199. Yáñez P (2014) 'Mejoramiento de la atención primaria de salud', Presentación 31, División de Atención Primaria. Ministerio de Salud: Santiago.
200. Zuleta S (2013) 'Condicionantes para la gestión de atención primaria de salud', Presentación. División de Atención Primaria. Ministerio de Salud: Santiago. (Available at: http://minal.uvirtual.cl/documentos/archivo/soledad_zuleta.pdf) [Accessed May 21, 2014].
201. Zúñiga FA (2013) 'Private health insurance systems, constitution and the right to receive an equitable healthcare', *Revista médica de Chile* 141(4):514–8. (Available at: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0034-98872013000400013&lng=es&dnrm=iso&dtlng=es) [Accessed June 10, 2014].
202. Zúñiga FA (2011) 'Justicia y racionamiento sanitario en el Plan AUGE : Dilemas bioéticos asociados a la distribución de recursos escasos', *Acta bioethica* 17(1):73–84.

Acronyms

ACHM	Chilean Municipal Association, <i>Asociación Chilena de Municipios</i>
APS	Public Primary Care, <i>Atención Primaria de Salud</i>
AUGE	Universal Access with Explicit Guarantees, <i>Acceso Universal con Garantías Explícitas</i>
CESFAM	Family Health Centre, <i>Centro de Salud Familiar</i>
CECOF	Community Health Centre, <i>Centro Comunitario de Salud</i>
CGU	General Urban Health Centre, <i>Consultorio General Urbano</i>
CGR	General Rural Health Centre, <i>Consultorio General Rural</i>
CIRA	Network Integration Council, <i>Consejo de Integración de la Red Asistencial</i>
CONFUSAM	Municipal primary care workers union, <i>Confederación de Funcionarios de Salud Municipal</i>
COSAM	Family Community Mental Health Centre, <i>Centro Comunitario de Salud Mental</i>
EAP	Primary Healthcare Law, <i>Estatuto de Atención Primaria</i>
ETESA	Health Technology Assessment Unit, <i>Evaluación de Tecnologías Sanitarias</i>
FONASA	National Health Fund, <i>Fondo Nacional de Salud</i>
GES	Explicit Health Guarantees, <i>Garantías Explícitas en Salud</i> (legal name for AUGE)
ISAPRE	Private for-profit insurers, <i>Instituciones de Salud Previsional</i>
MINDESOP	Ministry of Social Development, <i>Ministerio de Desarrollo Social. Formerly Ministry of Planning (MIDEPLAN)</i>
MINSAL	Ministry of Health, <i>Ministerio de Salud</i>
MSF	Family Health Model (Integral Biopsychosocial Model of Family and Community Health), <i>Modelo de Salud Familiar o Integral Atención Familiar y Comunitario</i>
OOP	Out-of-pocket payments
PC	Primary Care
PUC	Catholic University, <i>Pontificia Universidad Católica de Chile</i>
SAPU	PC Urgent Care Services, <i>Servicio de Atención Primaria de Urgencia</i>
SAR	Specialized PC Urgent Care Service, <i>Servicio de Alta Resolución</i>
SEREMI	Regional Health Authority, <i>Secretario Regional Ministerial</i>
SNS	Chilean National Health Service, <i>Servicio Nacional de Salud</i>
SNSS	National Health Services System, <i>Sistema Nacional de Servicios de Salud</i>

Appendices

A1. Document review and Key informant methods

The document review of the secondary literature used the main domains of the conceptual framework and specific questions for Chile to formulate search terms. The documents encompassed both published and grey literature in English and Spanish, including key government/policy documents, statements and reviews; relevant operational documents from health authorities and systems; reports and evaluations of specific reforms, innovations or practices and official statistics. The review did not implement the methods of a systematic review, but aimed to provide a comprehensive review of evidence and data related to the specific features of Chile's PC practice model.

Inclusion and exclusion criteria for document review.

Documents retrieved from the searches were reviewed by title and abstract to assess their content against the domains and constructs of the conceptual framework. Full texts of selected documents retrieved were organized using Mendeley reference manager and pdf organizer. Inclusion criteria:

- Documents related to Primary Care in Chile that provide information for any of the domains or constructs in the analytical framework.
- Documents mainly from 1990 onwards included with greater emphasis on documents from 2000 on, although some earlier key texts included.
- Mainly documents in English and Spanish, but also relevant documents in Portuguese.

Reports of clinical cases or clinical and drug trials, except for family health program intervention testing in PC settings and earlier versions of an updated paper by the same authors already included and the same concepts were already covered, were excluded.

Search strategy steps. The desk review of papers initially reviewed literature retrieved from searches using the search terms on PubMed, Scielo, EMBASE and BVS databases, and in national and international institutional web sites, then identification of further relevant papers: by snowballing

from the reference lists of identified papers; specific searches when a relevant point was not totally explained by the documents found before; documents suggested by KI and other experts; and documents found in the Ministry of Health's Library, Universidad de Chile's Department of Primary Care's Library and Pontificia Universidad Católica Family Medicine Department. For website searches the search terms "health or primary care Chile" were initially used, then websites were explored more deeply looking for relevant documents in specific sections, including "documents" and "publications". This was necessary because many relevant documents are in the grey literature. This is the case with some governmental documents, which are essential for understanding the national context and the primary care practice model. In total, 344 were selected for full review. The references for these documents are included in a table, presented in a separate document, organized by year and alphabetically by author's name, which describes where the document was found and the domain it informs. However, many of the documents were local reports not generalizable to the national context or expressed opinions rather than evidence.

The texts ultimately included in the desk review to date are cited in the reference list of this report. A first general search using Pubmed linking "Primary care" or "Primary health care" AND Chile was carried out specifying that they were Mesh terms, which identified 211 documents. Using the same search terms without indicating Mesh yielded 292 documents. To ensure a broader capture, the decision was made to use more general terms in English and Spanish. More detailed specific search terms were conducted for the conceptual framework domain constructs. Descriptors in English and Spanish were obtained from the website Health Sciences Descriptors of the Virtual Health Library of BIREME (available from: <http://decs.bvs.br/E/homepagee.htm>). The terms in English generally coincide with the Mesh terms but in some case descriptors not included in Mesh are reported, such as "equity". Concepts not found on BIREME were translated to Spanish by the team. The complete list of search terms and descriptors found on Mesh and BIREME browsers are available. National and international

Institutional websites were searched to find published reports and grey literature related to the framework domains and constructs, as well as specific Chilean models such as Chile Crece Contigo and AUGE.

Key informants were identified through institutional positions, involvement in practice communities, and the document review. The final list was selected to reflect a diversity of profiles, areas of expertise and geographic practice (see below). Of the 19 KI originally selected, only one interview was not realised due to scheduling difficulties despite persistent attempts. In total, 18 interviews were conducted (exceeding the 10 stipulated in the TOR):

1. Development and practice: Municipal PC management (4, 2 of which were outside Santiago) and professional association representative (1)
2. Service features and social roles: Front line providers (2 doctors, 1 nurse and 1 midwife); Municipal PC management (4); community representative (2)
3. Service inputs and outcomes: Central policy and management level (4) and Municipal PC management (4).
4. Experts with research, training provider and management experience: University PC (2)
5. Chronic care policy: Managing and sustaining change: Central policy level (1)
6. PC model private sector: Family medicine private sector (1)
7. Lessons, challenges, innovation and changes in plans, programs, financing and purchasing: Central policy level (3); Municipal PC management (4); University PC (2); and professional association (1).

A2. Timeline of Chile's health system

Three periods with changing policy emphases shaped health system development in Chile since the early 20th Century, driven by prevailing political, economic and social forces and the epidemiologic context. The general policy approach and milestones of each period are outlined below:

Democracy: Benefactor state (social welfare approach)

- 1918: Chilean Health Code (*Código Sanitario*)
- 1924: Creation of mandatory Social Security (*Seguro Obrero Obligatorio*) with health care coverage for formal workers and their families, supervised by the Ministry of Hygiene, Health Care and Social Security
- 1938: Preventive Medicine Law (Mardones-Restat & de Azevedo 2006)
- 1952: Establishment of the Chilean National Health Service (*Servicio Nacional de Salud*, SNS), funded primarily by tax revenue, uniting various public health agencies and hospitals under a centralized,

nationally organized public system responsible for providing healthcare services free of charge to blue-collar workers and their families and the indigent, approximately 60% of the population. Regulatory functions in the Ministry of Health.

- 1969: Creation of social insurance for white-collar workers (25% of the population), the National Medical Services for Employees (SERMENA), with “free choice” to access private physicians and public hospital care, subject to out of pocket payments for each service received. (Jimenez de la Jara & Bossert 1995). Another 5% of the population was covered by military health services and 10% of the elite paid for private care.

Dictatorship: Ideological focus on the private sector

- 1979: SNS was replaced by 28 (now 29) autonomous regional health services, loosely structured as the National System of Health Services (*Sistema Nacional de Servicios de Salud*, SNSS). FONASA (National Health Fund) was created to administer public health system budget.
- 1981: Employees/retirees required to make mandatory contributions of 4% of taxable income (7% after 1986) to finance health insurance. Legalization of private health insurance (ISAPRES), with the Constitutional right to choose between FONASA and private insurers. Primary care facilities and administration was transferred from SNSS to municipalities (Unger et al. 2008).

Return to Democracy: Realizing the social right to health

- 1990: Programme to Strengthen Primary Health Care: elimination of user fees, development of PC urgent care services (SAPU) to expand coverage (Ministerio de Salud & Universidad de Chile 2005). Creation of Superintendent to regulate ISAPRES.
- 1995: Primary Care Law with capitation public financing and career service for municipal primary care workforce.
- 1998: FONASA creates guarantees for timely care and catastrophic conditions.
- 2005: Solidarity Health Reform: Plan for Universal Access with Explicit Guarantees (AUGE) to improve quality, timeliness and financial protection for defined priority health conditions. Renewal of Primary Care: Model of Integral Family and Community Health. New institutional framework: Superintendent of ISAPRES becomes the Superintendent of Health; strengthened public health functions with Regional Public Health Authorities and an Undersecretary of Public Health in the Ministry of Health (Manuel 2002; Nancuante Almonacid & Romero Celedón 2008).

- 2006-2013: Expansion of AUGE to cover 80 priority health conditions (Ministerio de Salud 2014e).
- 2010: Constitutional Court declares unconstitutional the norms to regulate ISAPRES' premium structure based on a table of factors, including age, in contravention of the State's responsibility to protect health and the social right to health (Ministerio de Salud 2014b).
- 2014: Creation of Presidential Advisory Commission to study and propose a new legal regime for the private health system. (Ministerio de Salud 2014b)

A3. Legal framework of the Chilean health system

The 1980 *Political Constitution of the Republic of Chile* establishes the right to health protection in Article 19 N° 9: "The State protects free and equal access to promotion, protection and recovery of health and rehabilitation of individuals and is generally responsible for the coordination and control of health-related actions.

The main duty of the State is to guarantee the execution of health activities, whether provided through public or private institutions, in the form and conditions prescribed by law, which may establish obligatory contributions. Every person will have the right to choose the health system that he wishes to benefit, be it state or private" (Ministerio Secretaría General de la Presidencia 2005).

However before the AUGE reform, the right to health only guaranteed minimum benefits to safeguard life. Law No. 18.469, which regulated "the exercise of the Constitutional right to health protection" in the National System of Health Services for FONASA beneficiaries, was amended by Law 19.650 in 1999 prohibiting requests for payment of any sort to receive emergency medical treatment in private health centres (Ministerio de Salud 1999). For all other cases, State obligations were conditional and dependent on availability of services, so that failure to provide non-life saving medical care because of financial constraints was not considered by courts to be arbitrary or illegal, even though it negatively affected effective coverage of health benefits.

Decree-Law No. 1, 2006, of the Ministry of Health, Law of the Public Health sector (Ministerio de Salud 2006) unifies the various laws relate to the organisation of the Ministry of Health and its decentralized entities. It also sets out the roles of the Ministry of Health, the National System of Health Services (SNSS) and its institutions, as well as Regional Ministerial Secretariats of Health (Regional Health Authorities) regarding regulatory aspects, supervision,

evaluation and monitoring of policies, plans and programs emanating from the Ministry of Health and the Sanitary Code. *Decree No. 680, September 1990, of the Ministry of Interior*, published in Official Journal on 16/10/1990, states that every public division must have an OIRS Information Office, which must facilitate information and complaints (Ministerio del Interior de Chile 1990).

Specific primary care legal framework

Law N° 19.378, Primary Health Law (*Estatuto de Atención Primaria, EAP*) (MINSAL 1995):

- Regulates matters relating to the administration, financing and coordination of municipal primary health care to regulate the employment relationship, career service, duties, and rights of the PC personnel.
- Sets the role of the Ministry of Health and Health Services regarding normative aspects, monitoring and evaluation of financing of programme offerings and achievement of goals (Arts. 49, 58, 59 y 60).
- Art. 49: Per capita financing and adjustment (*Appendix A9*).
- Art. 56: Establishes the obligation of health facilities to comply with norms, guidelines, plans and programmes that the Ministry imparts. It also sets the responsibility of administering entities to establish the organizational structure of their local primary care management and the unit responsible for health, based on the Community Plan and the Care Model defined by the Ministry.
- Art. 58: Establishes that the Annual Health Program is approved by the Municipal Council and reviewed by the respective Health Service to determine if it meets Ministry of Health standards.
- Art. 60: Health Services should monitor compliance with technical standards by PC municipal facilities and the municipal health program.

A4. AUGÉ health conditions

Health conditions with health care guarantees under AUGÉ

- | | |
|---|---|
| 1. Chronic terminal kidney failure stage 4-5 | 42. Subarachnoidal hemorrhage secondary to rupture of cerebral aneurysms |
| 2. Operable congenital cardiopathy (under 15 years) | 43. Primary central nervous system tumors needing surgery |
| 3. Cervical cancer (≥ 15 years) | 44. Herniated lumbar nucleus pulposus needing surgery |
| 4. Palliative care and pain relief for terminal cancer | 45. Leukemia (≥ 15 years) |
| 5. Acute myocardial infarction | 46. Dental emergencies (ambulatory) |
| 6. Type 1 Diabetes | 47. Integral dental care (only for 60 year-old adults) |
| 7. Type 2 Diabetes | 48. Severe multiple trauma |
| 8. Breast cancer (≥ 15 years) | 49. Moderate or severe cranial trauma (emergency care) |
| 9. Spinal dysraphias | 50. Severe ocular trauma |
| 10. Scoliosis needing surgery (< 25 years) | 51. Cystic fibrosis |
| 11. Cataracts surgery | 52. Rheumatoid arthritis treatment |
| 12. Hip replacement for arthrosis with severe functional limitation (≥ 65 years) | 53. Harmful use and dependence on alcohol and drugs (< 20 years) |
| 13. Cleft palate | 54. Labour analgesia |
| 14. All cancers in children (< 15 years) | 55. Major burns |
| 15. Schizophrenia | 56. Bilateral hearing loss needing a hearing aid (≥ 65 years) |
| 16. Testicular cancer (≥ 15 years) | 57. Retinopathy in premature infants |
| 17. Lymphomas (≥ 15 years) | 58. Premature bronchopulmonary dysplasia |
| 18. HIV/AIDS | 59. Bilateral neurosensorial deafness in premature infants |
| 19. Upper and lower respiratory infection (< 5 years), ambulatory | 60. Non-refractory epilepsy (≥ 15) |
| 20. Community-acquired pneumonia susceptible to ambulatory care (≥ 65 years) | 61. Asthma (≥ 15) |
| 21. Primary arterial hypertension (≥ 15) | 62. Parkinson's disease |
| 22. Epilepsy susceptible to treatment in primary care (1 - 14 years) | 63. Idiopathic juvenile arthritis |
| 23. Integral dental care (only for 6 year-old children) | 64. Secondary prevention of terminal chronic kidney failure |
| 24. Prevention of premature labour | 65. Hip dysplasia |
| 25. Alterations of impulse generation and conduction that require pacemaker (≥ 15 years) | 66. Integral dental care for pregnant women |
| 26. Cholecystectomy (symptomatic 35–49 years) | 67. Remitting, recurrent multiple sclerosis |
| 27. Stomach cancer | 68. Chronic hepatitis B |
| 28. Prostate cancer | 69. Hepatitis C |
| 29. Vision impairment (≥ 65 years) | 70. Colorectal cancer (≥ 15) |
| 30. Strabismus (< 9 years) | 71. Ovarian cancer (epithelial) |
| 31. Diabetic retinopathy | 72. Bladder cancer (≥ 15) |
| 32. Non-traumatic retinal detachment | 73. Osteosarcoma |
| 33. Hemophilia | 74. Chronic aortic valve lesions needing surgery |
| 34. Depression (≥ 15 years) | 75. Bipolar disorders |
| 35. Prostate hyperplasia needing surgery | 76. Hypothyroidism |
| 36. Orthosis and technical aids (≥ 65 years) | 77. Moderate and severe hypoacusis (< 2) |
| 37. Stroke (≥ 15 years) | 78. Systemic lupus |
| 38. Chronic obstructive pulmonary disease (ambulatory treatment) | 79. Surgical treatment chronic mitral and tricuspid valve lesions |
| 39. Moderate and severe asthma (< 15 years) | 80. Treatment for eradication of Helicobacter pylori |
| 40. Neonatal respiratory distress syndrome | |
| 41. Medical treatment for mild and moderate hip and/or knee arthrosis (≥ 55 years) | |

Note: Conditions in bold are mainly treated in primary care for FONASA, financed through per capita.

Source: (Ministerio de Salud 2014e)

A5. Chile Crece Contigo

Primary health care Chile Crece Contigo Programme (Ministerio de Desarrollo Social 2014)

Component	Activities
STRENGTHENING OF PRENATAL DEVELOPMENT	<p>Access to antenatal care, establishment of a supportive relationship and detection of psychosocial risk factors</p> <p>Anticipatory and preventive guidelines</p> <p>Delivery of a health plan customized for every pregnant woman and her family in situation of psychosocial vulnerability</p> <p>Comprehensive home visit to pregnant women in situation of psychosocial vulnerability.</p> <p>Activation of the intersectoral community network of support according to psychosocial vulnerability.</p> <p>Education individual / group to the pregnant woman and her partner or significant companion: support program for newborn, cognitive and emotional support and preparation for birth and parenting</p>
STRENGTHENING COMPREHENSIVE CHILD DEVELOPMENT	<p>First child health control with mother, father, or caregiver</p> <p>Health controls with monitoring and evaluation of integral child development</p> <p>Psycho educational group or individual intervention group to develop parenting skills</p>
ADDITIONAL CARE FOR CHILDREN IN VULNERABILITY	<p>Preventive and recuperative interventions for children in vulnerable situations and/or lags in integral development.</p> <p>Health care for children with deficits in their integral development.</p> <p>Home visits for the families of children under four years in vulnerable situations to support biopsychosocial development.</p> <p>Stimulation and other interventions to support child development.</p>

A6. Family Health Plan: Basket of services

The benefits and services included in the Family Health Plan, financed by capitation and described in the Ministry of Health orientations for planning and programming (Subsecretaría de Redes Asistenciales 2013b), are periodically updated in accordance with evolving population health needs determined by national health objectives, demographic and epidemiologic changes. The basket of services in the Plan is organised as follows:

1. **Child health Programme** which includes well child checkups, psychomotor development and control services, nutrition control and treatment services e.g. supplementary feeding programme, breastfeeding services, health education for risk groups, vaccination, home visiting, mental health consultations and morbidity and chronic disease checks.
2. **Adolescent health Programme** most of the same services as for child health but also sexual and reproductive health services including gynaecology and obstetric services, pre and postnatal care, contraception. Also, health promotion and education, psychosocial health services, and consultation and or mental health counselling,
3. **Women's health programme** including sexual and reproductive health services as for adolescent health, pregnancy (pre- and postnatal) services, and group education.
4. **Adult health programme** including consultations for illness, control and prevention of chronic disease and related risk facts (nutrition), psychosocial and mental health care, health education, home care, podiatry care and treatment services for people with diabetes, and physical activity group intervention.
5. **Older adults health programme** all of the services as for the adult health programme plus physiotherapy consultations, influenza vaccination, nutritional support for seniors (PACAM).
6. **Oral health programme** including oral health examination, group education, emergency care, treatment such as extractions, plaque removal, fluoride

sealant, and temporary and permanent root canal, endodontics and dental X-ray.

7. **AUGE Explicit Guarantees programme** including diagnosis and treatment services for key chronic conditions of hypertension, depression and COPD for persons 15+ years; diagnosis and treatment services for Diabetes Mellitus (types 1 and 2) for all age groups as part of the Cardiovascular Programme; guaranteed services for epilepsy, integrated oral care, bronchial asthma and ARI for children and adolescents of different age groups; for people aged 65+ years diagnosis and outpatient treatment for community-acquired pneumonia including physiotherapy, and diagnosis and treatment of presbyopia including glasses; medical treatment for persons of 55 years and older for arthritis and osteoarthritis of the hip or knee; and emergency dental care.
8. **General services associated with all programmes** including environmental education, family counselling, home visiting, social worker consultations, family psychosocial interventions, treatment and curation of lesions, access to out of hours care and diagnosis and control of tuberculosis.

A7. The Ministry of Health's 13 steps equity agenda 2008 - 2010

In 2008 the Chilean Ministry of Health set up an Executive Secretariat on Social Determinants of Health (SDH) in the department of the Undersecretary of Public Health with the goal of improving health equity within a wider governmental mandate to promote social equity. This Secretariat worked to promote an equity agenda, "13 pasos hacia la Equidad", aimed at improving the level and distribution of health in Chile. The steps were framed around objectives with concrete actions (Vega 2011) (See *Table A7.1*). Although the Secretariat was dissolved after the governmental change in 2010, many of the initiatives are still in place. The current authorities are planning to resume a social determinants equity agenda and WHO is also using some of the agenda's methods and tools. The key lessons from the Chilean agenda, according to the former Undersecretary of Public Health, Dr Vega, are: efforts to strengthen health equity, must be underpinned by explicit political commitment at the highest level; an explicit agenda with incentives is indispensable; building trust is a must, intersectoral relationships are crucial; the community is essential; and training is a fundamental strategy for institutionalization.

Table A7 Thirteen steps to equity

Objective	Step	Main actions	Results
To contribute to the reduction of social inequalities which generate health inequities	Equity from the beginning: Chile Crece Contigo	To disseminate knowledge on the underlying social determinants of health and promote intersectoral action	Strengthened collaborative work with the Ministry of Planning (now Ministry of Social Development).
	Employment and working conditions that contribute to health equity	A joint initiative with the Ministry of Labour and the Institute of Occupational Safety to carry out the first National Survey of work and employment conditions, quality of life, and health of workers in Chile (ENETS).	ENETS survey was carried out and analysed. Its replication in other Latin American and African countries is part of a Rockefeller Foundation grant with FLACSO-Chile.
To reduce inequities which restrict and limit access to health and health services	Priority Public health programmes review and redesign.	Based on Tanahashi's ^a effective coverage framework, an equity review of six national programs: Child Health, Reproductive Health, Cardiovascular Health, Oral Health, Workers Health, and Red Tide (a seafood-borne disease).	The six programmes carried out the review and 3 pilot redesign initiatives were implemented. WHO has adapted the process to other contexts. ^b
To implement actions for the "social inclusion" of excluded groups and territories	Reducing barriers to access to health care in the 96 most vulnerable counties and 68 most vulnerable urban neighbourhoods in the country	Community input and intersectoral action to develop and carry out strategies aimed at the main barriers of access to health services, particularly PC and to the social protection system, co-financed by municipal governments.	Over 9,000 community leaders, citizen's groups, users' groups, and representatives of social organizations took part. Interventions included upgrades of some PC facilities, measures to improve geographic and transportation accessibility, and outreach services.

Table A7 Thirteen steps to equity (continued)

Objective	Step	Main actions	Results
To develop competencies on equity and SDH in the Ministry of Health Staff	A capacity building program to incorporate SDH and Health Equity in the design and development of health policies and programmes: Training the trainers	Expand the personnel's capacities for health planning, coordination with other sectors, and to develop mechanisms for incorporating civil society actors in decision-taking, actions and control	Development of Competencies and Training in Public Health Program, including 67 staff trained in Andalusia, who then developed an in-country training programme for professional and administrative staff: 853 people, 30% of public health personnel
To generate tools for planning, monitoring and evaluation of the SDH and equity in the health sector	Regional diagnoses of SDH and health equity in each region in the country	Studies of Public Health with a focus on Social Determinants serve to produce useful information for designing local policies and interventions aimed at reducing inequities in health".	A set of core indicators to assess structural determinants, intermediate determinants, differential access to health care and differential health outcomes is in use. ^c
To establish mechanisms for the integration of the community to develop the necessary actions to reduce health inequities	Health Forums	The forum project "Let's Build Better Health for Everyone" created a venue for concrete community engagement in public health action.	During 2009, 57 forums engaged over 50,000 Chileans in every region to develop proposals for the next decade's national health objectives.

Notes: ^a (Tanahashi 1978); ^b http://apps.who.int/iris/bitstream/10665/85689/1/9789241505567_eng.pdf; ^c <http://epi.minsal.cl/estudios-y-encuestas-poblacionales/diagnosticos-regionales/diagnosticos-por-region/>
Source: Vega (2011)

A8. Coverage, contributions and benefits by subsystem

Table A8 Coverage, contributions, benefits, and services in Chile's Health System

	FONASA (public social health insurance)		ISAPRES (private insurance)	Others (Armed Forces and Police)
	The Indigent (group A)	Contributors (groups B, C, D)		
Coverage (%)				
Population	76.5%		17.0%	6.5%
	27.3%	49.2%		
Contributions				
Mandatory 7% Contribution	No	Yes	Yes	
Separate AUGE Contribution	No	No	Yes	
Additional voluntary Contributions	No	No	Yes	
Public financing	Yes	Yes	Only maternal leave subsidy and public health goods	Yes
Benefits plan				
Family health plan ^b	Free, offered in public PC centres (comprehensiveness of the benefits depends on type of facility)		Free access to universal public health goods: powdered milk, vaccines and TB ^a treatment.	

Table A8 Coverage, contributions, benefits, and services in Chile's Health System (continued)

	FONASA (public social health insurance)		ISAPRES (private insurance)	Others (Armed Forces and Police)
	The Indigent (group A)	Contributors (groups B, C, D)		
AUGE ^c	Mandatory, no Copayments	Mandatory and no copayments for PC services or group B for secondary care; groups C and D have legally defined copayments with ceilings for secondary care.	Mandatory, with legally defined copayments and ceiling.	Not mandatory. Coverage generally exceeds AUGE's.
Non-AUGE specialist and hospital health services	Referral from PC without explicit guarantees and rationing resulting in queues	Referral from PC, no copayments for group B. Groups C and D have legally defined copayments. Rationing resulting in queues, but may purchase MLE vouchers to access private providers (paying at least 50%).	Explicit benefits Defined, depending on ISAPRE plan. Variable deductibles, copayments, ceilings, and exclusions.	Services more generous than in FONASA.
Provision				
Family health services	Exclusively in public primary health care centres (including some university/NGO centres). ^d		May obtain public health goods (see above) in public PC centres	
Provision of AUGE health services	Exclusively with public providers (PC and hospitals), except when public supply is unavailable, in which case FONASA purchases services from private providers.		Almost exclusively with private, providers. Some use of public hospitals in regions.	Armed Forces and Police have their own providers.
Provision of non-AUGE health services	Exclusively with public providers (PC and MAI).	Mostly with public providers, but may purchase MLE vouchers for private care.	Mostly with private, freely selected providers. Some use of public hospitals in regions.	Other people not enrolled in FONASA or and ISAPRES pay full cost, for public/private providers.

Source: Adapted by authors from (Bitrán 2013), p.5 ^a ISAPRE affiliates would also benefit from any population or community health activities carried out by the primary care health team with intersectoral and community organisations. ^b See benefits of the public Family Health Plan in *Appendix 6* ^c AUGE provides additional benefits of maximum waiting times, quality and greater financial protection for 80 priority health conditions (see list in *Appendix A4*). ^d Specific intersectoral activities for vulnerable families in Chile Crece Contigo (see *Appendix 5*).

A9. Per capita financing adjustment factors

Fiscal resources for public primary care, are transferred from the Ministry of Health through FONASA to the Health Services who then allocate primary care funds to municipalities, in accordance with article 49 of the Primary Care Law (Estatuto de Atención Primaria, EAP) No. 19.378 (MINSAL 1995) and administer the budgets of primary care facilities under their control (Subsecretaría de Redes Asistenciales 2013b). Of this, 88% is allocated to municipalities and 12% to Health Services primary care establishments. Per capita financing was introduced in 1994, replacing the system, which paid municipalities by activity, with local maximum ceilings. The objectives

were to contain costs and stimulate efficiency, equity and obtaining results. About 70% of municipal primary care budgets are allocated by capitation. The Ministry of Health determines per capita financing according to the size of the population and in reference to the basket of services in the Family Health Plan (see *Section 3.1*), also including the cost of primary care benefits in the AUGE guaranteed plan. These plans determine a base per capita, a uniform contribution per person registered in the municipal primary care facility. The total registered population is validated externally each year, in order to correct for people who could be registered in more than one place or covered by

a private insurer (División de Municipalidades 2008). Increments to the base per capita are added according to five criteria defined in article 49 of the EAP, for which indexes have been established:

1. **Deprivation** is based on an average municipal deprivation index (Índice de Privación Promedio, IPP) measuring economic capacity of the municipality according to its dependence on the Municipal Common Fund (*Fondo Común Municipal*), ranging from 0 to 1. Four categories of deprivation are established, determining increments from 0 to 18% over the base per capita (Subsecretaría de Redes Asistenciales 2013b) (http://www.sinim.cl/informacion_municipal.php).
2. **Risk associated with age.** An additional amount (\$487 per month in 2014) is allocated for each adult over 65 years in the validated registered population.
3. **Rurality.** A 20% increase in the per capita is allocated in municipalities with a rural population over 30% according to census data.
4. **Area allocation:** For municipalities with special conditions arising from geographic isolation or greater costs of living due to geographic factors, a percentage

adjustment in salaries of public servants (Article 7 of the Law Decree N° 249), defined by a zone allocation matrix, from 0 to 24% (Ministerio de Hacienda 1974), (Subsecretaría de Redes Asistenciales 2013b).

5. **Difficult duty** (MINSAL 1995): This is an additional allocation associated with the degree of difficulty to deliver health services, relating to the population's socioeconomic or cultural marginality and the insecurity it may pose for health workers. This is not an index but a salary bonus for urban and rural primary care workers. The urban and the rural municipal health managers propose the difficult duty establishments to the Health Service, a determination that is maintained for three to five years, by the Ministry of Health.

For reasons of scale, 48 smaller municipal systems with populations under 3,500 inhabitants receive fixed monthly budgets since the per capita scheme would not cover costs.

Several studies have questioned the capacity of the current per capita formula based on average indexes to address the differential health needs of municipal populations, with different proposals to increase sufficiency and equity (Raña K et al. 2007; Mansilla A et al. 2013; Vargas and Wasem 2006; Kuhn Barrientos and Castillo Riquelme 2013).

A10. Typology and distribution of Public PC facilities

	Type	Description
CESFAM	Family Health Centre (Centro de Salud Familiar) (2005)	This PC facility is most geared towards delivering the biopsychosocial model, organized around multi-professional health teams, responsible for and working with families in specific territorial sectors. CESFAM health teams should include professionals and technicians with health training (doctors, nurses, midwives, kinesiologists, dentists, nutritionists, physiotherapists, paramedics), together with those with psychological and social capabilities (psychologists, social workers, pre-school teachers, speech therapists, occupational therapists, community representatives, administrative staff).
CGU	General Urban PC Centre (Consultorio General Urbano) (pre-2005)	CGUs are found in urban localities of more than 20,000 (ideally less than 50,000) inhabitants and include doctors, dentists, nurses, midwives, nutritionists, other professionals, paramedics and lab technicians, as well as administrative staff.
CECOF	Community Family Health Centres (Centro Comunitario y Familiar)	Responsible for 3,500 to 5,000 people operating under a base CESFAM or CGU, the CECOF are designed to enhance prevention and health promotion activities and to increase access.
SAPU	PC urgent care services	SAPUs address medium and low complexity emergencies with same-day care, usually in non-business hours. The team comprises one or two doctors, supported by paramedics and other technicians according to local availability. It may be operated independently or as a part of a CESFAM, CGU or CGR. New specialized urgent care facilities with imaging and other capacities (<i>SAPU de Alta Resolución</i> , SAR) are being built to act as an interface with hospital emergency departments.
COSAM	Community Mental Health Centres	An outpatient mental health facility for areas with around 50,000 inhabitants.

A10. Typology and distribution of Public PC facilities (continued)

	Type	Description
CGR	General rural centres	A PC facility usually located in towns of 2-5,000 inhabitants and not exceeding 20,000 inhabitants. Is technically dependent of a CGU or a community hospital.
	Community hospitals	Are part of the primary health care strategy, providing a wide range of care services: outpatient, hospitalization, urgent care, home visits. Most are administered by a Health Service.
	Rural posts	Outpatient care facility, located rural areas serving 600 to 1,200 inhabitants. They are run by a resident paramedic who periodically receives support from the professional team composed basically by doctor, nurse and midwife. Health problems not resolved by rural post are referred to community hospitals or CGU.
	Rural station	Basic ambulatory health centres attended by a rural health team during periodic rounds in a physical space donated by the community.

Source: (División de Municipalidades 2008; MINSAL 2012b; Narbona and Durán 2009; Subsecretaría de Redes Asistenciales 2008)

Table A10: Public Primary Care Facilities, number and type by administration

Type of facility	Administration											
	Municipal			Health Service (MOH)			Other (university and NGOs) ¹³			Total		
	N°	% FONASA covered	Rate / 100 000	N°	% FONASA covered	Rate / 100 000	N°	% FONASA covered	Rate / 100 000	N°	% FONASA covered	Rate / 100 000
CESFAM	368	59.1%	2.8	18	4.1%	0.14	5	0.5%	0.04	391	63.7%	3.0
General Urban Centre (CGU)	110	23.9%	0.9	9	1.1%	0.07	6	0.5%	0.05	125	25.4%	1.0
Rural Health Post	115	4.4%	8.9	37	0.1%	0.28	1	(-)	0.01	119	4.5%	9.2
	5									3		
Rural General Centre	57	3.5%	0.4	0	0.0%	0	1	(-)	0.01	58	3.5%	0.5
Community Hospital	0	0.0%	0	46	2.8%	0.35	2	0.1%	0.02	48	2.9%	0.4
CECOF ^b	160	n.a.	1.2	15	n.a.	0.12	0	0	0	175	n.a.	1.4
SAPU ^c	177	n.a.	1.4	8	n.a.	0.06	1	n.a.	0.01	186	n.a.	1.4
COSAM ^d	47	n.a.	0.4	27	n.a.	0.21	2	n.a.	0.02	76	n.a.	0.6
Total	2074	90.9%	16.0	190	8.1%	1.46	18	1.1%	0.14	2286	100%	17.6

Source: Elaborated by the authors using data from (Departamento de Estadística e Información de Salud. Ministerio de Salud 2014) (Fondo Nacional de Salud 2014) ^a Family Health Centre, *Centro de Salud Familiar* ^b Community Family Health Centre, *Centro Comunitario de Salud Familiar* ^c PC Urgent Care Services, Servicio Urgencia APS ^d Mental Health Centre, *Centro de Salud Mental* n.a. Information not reported.

A11. Certification of Family Health Centres (CESFAM)

Family Health (CESFAM) are certified by Health Services, following Ministry of Health evaluation procedures using three levels of certification (intermediate, intermediate-advanced and advanced) and related to capacities to deliver the integrated family health plan with a biopsychosocial perspective (MINSAL 2009b). To attain each level of certification it is necessary to have met the goals of the

preceding level. Evaluation criteria are summarized in four areas: health team, process, training and results. The requirements for each area are summarized below:

- **Health Team:** existence of a management team, explicit support from local authorities and a family health team for each sector are basic requirements.

- The following **process(es)** need to be in place: The population is divided into sectors with a defined family health team in charge; a communal health diagnosis and epidemiological profile is developed; there is a system to prioritize medical attention, schedule appointments etc; family health team meetings are held regularly; epidemiological maps are developed; work with families includes use of family health records, family work plan, home visits, family counselling, etc; management monitoring (for intermediate-advanced and advanced levels) of effectiveness/capacity to resolve health problems, using criteria for referral and designing improvement mechanisms; user satisfaction (75% or more of approval in user satisfaction data collected from surveys); community information; working with the community e.g. creation of a local development council with regular meetings to develop participatory diagnosis and to design collaborative activities for health promotion;
- office for information, complaints and suggestions; infrastructure; strategic planning (for intermediate-advanced level), intersectoral work, quality (quality control mechanisms for intermediate advanced and advanced levels), and financial management (advanced level).
- Training:** existence of induction programme, training plan for intermediate level (staff trained in family health courses, change, population sector work, team work) or for advanced level (family health diplomas, scholarships for family health residencies).
- Results:** existence of goals (for intermediate-advanced and advanced levels, referring to IAAPS, health targets and explicit guarantees) and management results (for advanced level, referring to secondary level referral rates under or equal to 10%.

Table A11.1 Dimensions of social participation in CESFAM by development degree

Dimension / Development degree	Intermediate CESFAM	Intermediate-Advanced CESFAM	Advanced CESFAM
Community work	Establish a Local Development Council	Develop an annual work plan and regular meetings with the Local Development Council	Maintain the achievements
OIRS (Information and Complaints Office)	Establish an OIRS with community participation	OIRS management report by semester	Maintain the achievements
Participatory diagnosis	Existence of Health diagnosis document	Participatory diagnosis updated	Maintain the achievements
User satisfaction	Application of a satisfaction survey	Health plan incorporates results of satisfaction survey	> 75% satisfaction

Source: (MINSAL 2009b; 2012b)

A12. Participatory mechanisms in Chilean primary health care.

Name / Title	Description	Purpose of the mechanism	Requirements for participation	Participants and / or beneficiaries
Advisory Councils and / or Local Development	An advisory body of community representatives for PC facilities that meets regularly	Advises the facility director and teams on management to improve the health and quality of life of the population.	Lives in the facilities territory and participates in a community organization or institution	Representatives of different social organizations and groups, including community monitors or volunteers or workforce health representatives
Social Participation Council	Associated with Participatory Budgeting in some Health Services. Members from the Development Councils and / or the CIRA (Health Network Coordinating Council)	Its function is to define institutional development and priorities. It constitutes a deliberative citizen participation mechanism.	Member of local development or network council and chosen to represent them.	Director and professions of the Health Service representatives of Advisory Councils of health facilities

A12. Participatory mechanisms in Chilean primary health care (continued)

Name / Title	Description	Purpose of the mechanism	Requirements for participation	Participants and / or beneficiaries
Office of Information, Complaints and suggestions (OIRS)	Information offices to facilitate interaction between users and CESFAM	Citizens can obtain information, make complaints, suggestions or congratulations. Complaints must be answered within a specified time.	Oral or written requests for information, suggestion or complaint	Open to all citizens
Participatory Budgeting in Health	Deliberative strategy, community involvement in deciding Health Service budget plans. May involve voting on projects by community participants, such as on user satisfaction and equity in rural health.	Discuss and decide on priorities for community projects in health, through participative processes.	Representatives of instances health development councils, or other community representatives. Citizens	Users in general, Development Council or Advisory Council members volunteers and health monitors
Participatory Public Accounts	By law all public institutions must report publically on policies, plans, programmes and actions, and budget execution.	Management, workforce, unions and community who work directly with PC participate in preparing the public account and its presentation	None	Local authorities and guests, representatives of the health network, sectoral and community representatives and citizens
Forums and other instances of community dialogues	Communication and citizen participation to gather expectations and needs of the population in matters of health. Sometimes with other social sectors or municipal social development departments	Inform the community and other sectors on health sector projects /programs. Respond to citizen requests and address community health issues holistically.	Citizens, community organizations and sectors	Community leaders, representatives of development councils, consultative and other instances of social work participation and citizens
Website Service	Digital media that serves as communication link	Maintain updated information about the organization's work.	Institutional policy and strategic goal -Communications Department and Public Relations	Internal audience (employees) the health care network and external public (general population).
Healthcare integration Council (CIRA)	Participation of directors of hospitals and PC facilities, headed by the Director of Health Service. It includes community, workforce representatives with voice and vote to participate in decisions for strengthening and development of the health care network	Define strategies for coordination of the health care network to solve management problems, increase effectiveness, user satisfaction, programming, promotion and dissemination of best practices	Community or workforce representative	Director of Health Service. Professionals from the Health Service. Hospitals Health Service Manager and Department Directors of Municipal Health. Chairman of Social Participation in Health Council.

Source: (Talcahuano 2012; Arica 2012)

A13.Promising practices in developing social participation

Sharing platforms such as Citizen Innovation (www.innovacionciudadana.cl), Community of Primary Care Practice (<http://buenaspracticassaps.cl>) and the Chilean Association of Municipalities competitions for good practices in primary care (Colección Municipal 2014) highlight local innovation in developing health promotion and social participation initiatives. For example, the “Curarrehue health at home” bottom-up strategy. Curarrehue is a poor, rural municipality in the Araucanía region, with a large indigenous population. Following a series of actions to build individual and community empowerment, the community identified health promotion strategies, with the number of local health committees tripling and promotional activities doubling in one year. Examples of the interventions implemented under community agreements, include de-worming and vaccination of pets, construction and maintenance of healthy home gardens, installation of toilets for vulnerable older people, improved drinking water sources, waste recycling programmes, sports for children, physical activity workshops, self-help workshops for women heads of household, and training of community health monitors (Vasquez 2012).

Technology as an interface between primary care and the community. Many health care managers and health centres have created blogs or social media accounts (Facebook, twitter) to keep citizens informed and to respond directly

to their concerns and proposals. For example occurs in Quinta Normal, both the Municipal Health Department (<http://saludqn.blogspot.com>) and Garin CESFAM (<http://cesfamgarin.blogspot.com>) have blogs facilitating communication between users and health workers. Virtual spaces are also being used among health care workers to share good practice (<http://buenaspracticassaps.cl>; <http://saludaps.colaboracionpublica.org>).

Community monitors in Villa Alemana. Many people with chronic health conditions don't have social or community support or live alone, making adherence to controls or treatment difficult. The community monitors initiative builds local social support networks with community volunteers, through a volunteer recruitment, selection and training processes. Result include increased participation in community workshops and activities aimed at self-care, empowerment of monitors as community agents for health prevention and promotion, and increased trust between the CESFAM team and the community (Colección Municipal 2014). Community mental health monitors and community dialogues in mental health in La Pintana. The Universidad de Chile supports the municipality to train community mental health monitors and engage in community health dialogues to build social support networks to foster social participation and promote knowledge of rights, share knowledge and involve the community in health promotion efforts (<https://www.youtube.com/watch?v=oOuwP-ZFEWY>).

A14.General and health indicators by domain

Table A14.1: General and Health Indicators in Chile

DOMAIN AND INDICATOR			
Domain 1			
National socio-political context	National economic context	National health context	
% distribution of older people (10%, 2014)	GDP (3E+11; 2012)	General mortality (5.51 per 1000; 2011)	Health expenditure per capita (US dollars, at current prices and PPPs) (1712; 2012)
% distribution of older people (women) (56,7%, 2014)	GDP per Capita (15452.1736)	Cardiovascular disease mortality rate (149.25 per 100000; 2011)	Public expenditure on health (as % total expenditure on health) (44,5; 2012)
% distribution of older people (men) (43,3%, 2014)	GNI per capita (21357; 2012)	Tumours mortality rate (142.5 per 100000; 2011)	Out-of-pocket health expenditure (% of total expenditure on health) (37,159; 2011)
Population growth (0.899, 2012)	GDP/Capita (constant 2005 US\$) (9447,1; 2012)	Obesity prevalence (> 15 years) (25.1; 2009-2010)	Out-of-pocket health expenditure (% of private expenditure on health) (70,051; 2011)

Table A14.1: General and Health Indicators in Chile (continued)

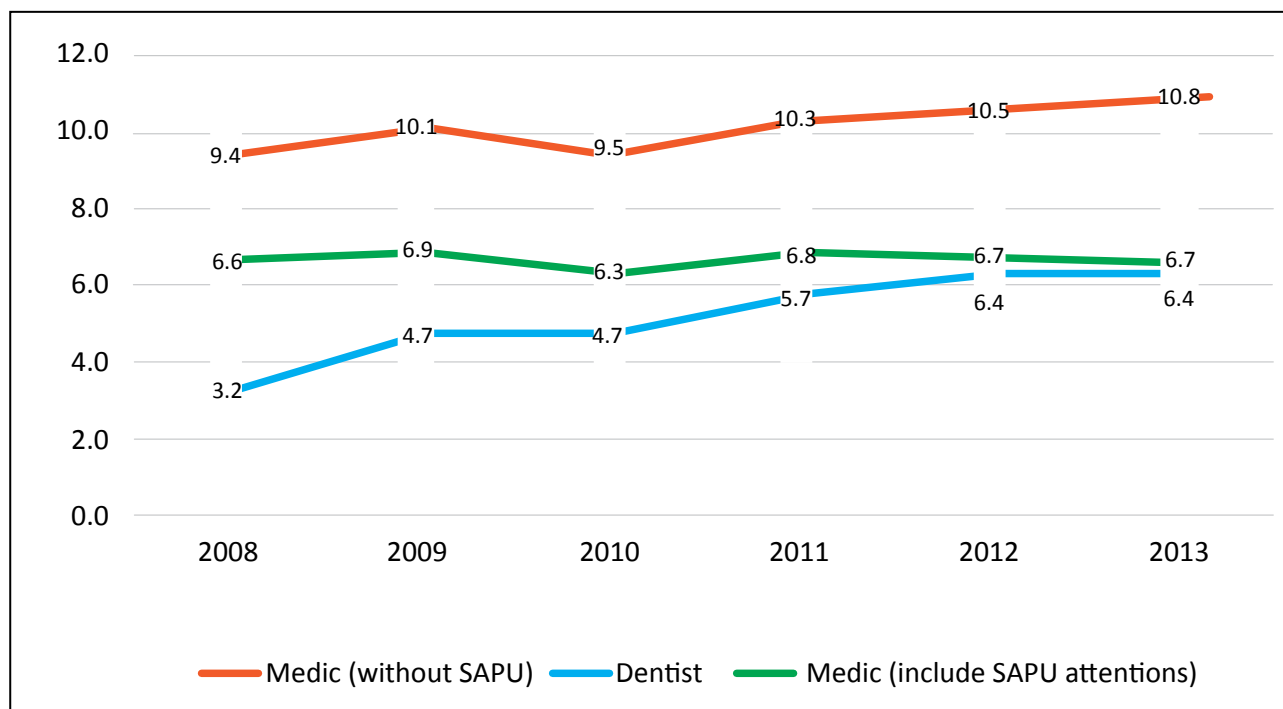
DOMAIN AND INDICATOR				
Domain 1				
National socio-political context	National economic context	National health context		
Population total (17,711,004, 2014)	GDP per capita growth (annual %) (4.6; 2012)	Overweight prevalence (> 15 years) (39.3; 2009-2010)	Health expenditure per capita, PPP (constant 2005 international \$) (1292.2; 2011)	
Population % women (50.5%, 2014)	General government final consumption expenditure as % GDP (12.131; 2012)	Diabetes (> 15 years) (9.4%; 2009-2010)	Health expenditure, private (% of GDP) (3.9595; 2011)	
Population % men (49.5%, 2014)	Total tax revenue (% of GDP) (21.395; 2012)	Prevalence undernourishment (% pop) (5; 2011)	Health expenditure, public (% of total health expenditure) (46.954; 2011)	
Population % 0-14 years (21.2%, 2014)	Taxes on income and profits (% of GDP) (8.6%; 2011)	Malnutrition prevalence % <5 years (National Health Service data (non private), <6 years old) (2.8; 2012)	Health expenditure, public (% of government expenditure) (15.132; 2011)	
Population % 15-64 years (68.7%, 2014)	Taxes on goods and services (% of GDP) (10.5; 2011)	Smoking prevalence % females (current smoker (daily and occasional smoker) (37.1%; 2009-2010)	Health expenditure, public (% of GDP) (3.5048; 2011)	
Completeness of birth registration (99%, 2008)	Depth of the food deficit (kilocalories per person per day) (31; 2012)	Smoking prevalence % males (current smoker (daily and occasional smoker) (44.2; 2009-2010)	Health expenditure, total (% of GDP) (7.4642; 2011)	
Population % 65 + as % total (10%, 2014)	Employment to pop ratio, 15 +, total (57.6; 2012)	HIV prevalence (% of pop 15-49 years) (0.4%; 2012)		
Age dependency ratio (P<15 + P>64/P15 a 64)*100 (45.4, 2014)	Employment rate in population aged 15-24 (31.3; 2012)	CO2 emissions from manufacturing industries and construction (% of total fuel combustion) (metrics tons per capita) (4.2; 2010)		
Life expectancy at birth, total (years) (79.1; 2010-2015)	Employment rate in population aged 25-54 (74.5; 2012)			
Life expectancy at birth, female (years) (82.2; 2010-2015)	Employment rate in population aged 55-64 (62.7; 2012)			
Life expectancy at birth, male (years) (76.1; 2010-2015)	Vulnerable employment % total (24.4; 2008)			
Fertility rate, total (1.9; 2011)	Adjusted net national income (current US\$) (2E+11; 2011)			
Survival to 65 years % male cohort (82.08; 2011)	GINI index (52.06; 2009)			
Survival to 65 years % female cohort (90.071; 2011)	Income share held by lowest 10% (1.53; 2009)			
Life expectancy at age 65 years, male (17.1; 2011)	Income share held by highest 10% (42.77; 2009)			
Life expectancy at age 65 years, female (20.2; 2011)	Poverty % pop at \$2 a day (PPP) (1.16; 2009)			
Internet users (per 100 people) (61.4; 2012)	% benefits held by 1st 20% population (% coverage all social insurance) (3.4059; 2009)			

Table A14.1: General and Health Indicators in Chile (continued)

DOMAIN AND INDICATOR			
Domain 1			
National socio-political context	National economic context	National health context	
Rural population % of total (13%; 2014)	Generosity of all social safety nets (7.4841; 2009)		
	Primary completion rate (Total, % of relevant age group) (94.836; 2011)		
	Progression to secondary school (90.524; 2010)		
	Public spending on education % GDP (4.0655; 2011)		
DOMAIN AND INDICATOR			
Domain 2		Domain 4	
Service inputs		Health status outcomes	
Nurses and midwives / 1,000 people (0.144; 2010)		Neonatal mortality (per 1000 newborns) (504; 2011)	
Physicians / 1,000 people (1.026; 2010)		Post neonatal mortality (per 1000 new burns) (2.3; 2011)	
Hospital beds (per 1,000 people) (2; 2010)		Potential years of life lost (per 1000 inhabitants) (72.7; 2011)	
Tuberculosis treatment success rate (% of registered cases) (71; 2011)		Infant mortality rate (per 1000 live births) (7.7; 2011)	
Teenage mothers (Live births from mothers 15 - 19 years) (%) (14.6; 2010)		Razón de mortalidad menores de 5 años (SMR under 5 year mortality) (8.79; 2011)	
Births attended by skilled health staff (% of total) (99.8; 2009)		Birth-weights <2500g (%) (5.95; 2011)	
Immunization, measles (% of children ages 12-23 months) (90; 2012)		Chronic diseases mortality rate, male (deaths per 100,000, age standardized estimate) (501; 2008)	
% Tuberculosis case detection rate (87; 2012)		Chronic diseases mortality rate, female (deaths per 100,000, age standardized estimate) (313; 2008)	
		Cardiovascular disease mortality rate (per 100,000 observed rate) (149.25; 2011)	
		Tumours mortality rate (per 100,000 observed rate) (142.5; 2011)	
		Lifetime risk of maternal death (%) (0.0461; 2012)	
		Maternal mortality ratio (per 100,000 live births) (18.5; 2011)	
		Prevalence overweight % <6yr olds (% for National Health Services facilities) (33.75; 2011)	
		Incidence of tuberculosis / 100,000 pop (16; 2012)	
		% with self reported good health (59.3; 2009-2010)	
		% Raised blood pressure in adults (24.9-29.1) (26.9%; 2009-2010)	

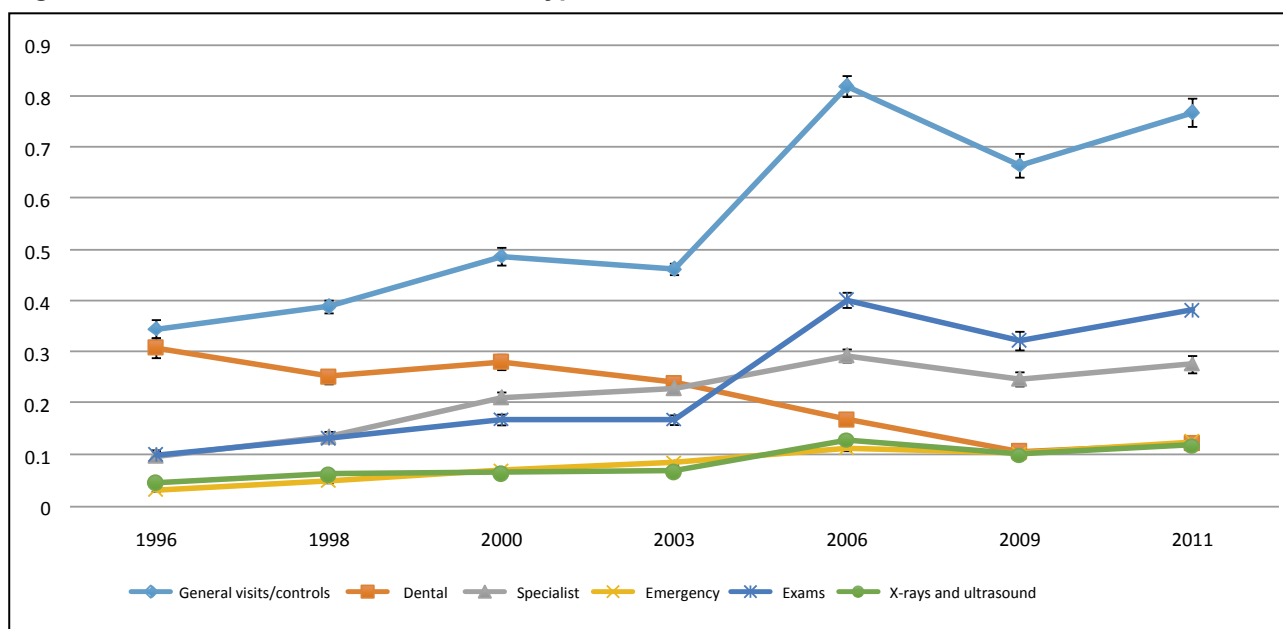
Sources: 1 (Instituto Nacional de Estadísticas & Comisión Económica para América Latina y El Caribe n.d.); 2 (World Bank 2014); 3 (OECD 2014b); 4 (Departamento de Estadísticas e Información de Salud. Ministerio de Salud 2013); 5 (MINSAL 2010a); 6 (World Health Organization n.d.)

Figure A14.1: Referrals x 100 professional Primary Care consultations, Chile 2008-2013



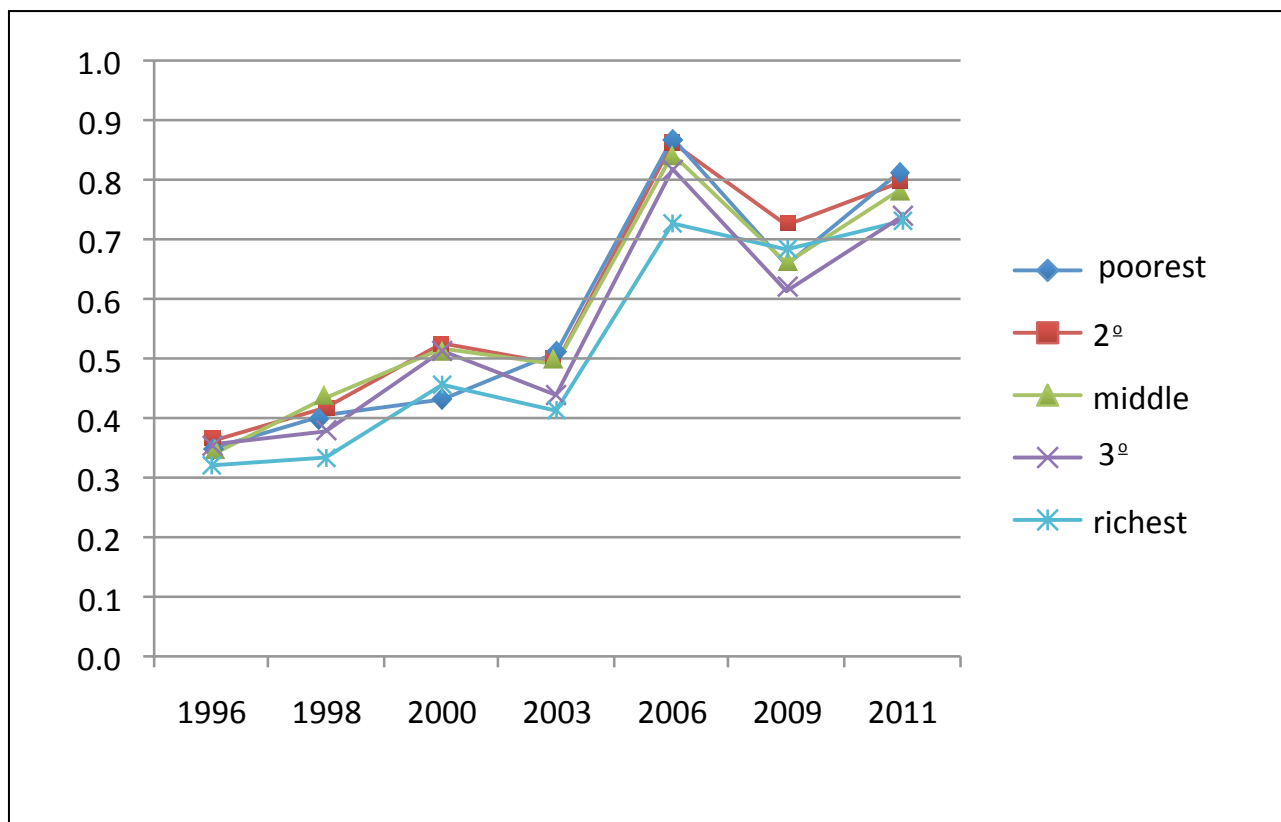
Source: Authors from data reported by Departamento de Estadísticas e Información de Salud, Ministerio de Salud (2014c) *Resumen Estadísticos Mensuales DEIS*, from <http://extranet.deis.cl/index.php/resumen-estadisticos-mensuales-deis> (21 May 2014).

Figure A14.2: Utilization rates of different types of health services 1996 -2011

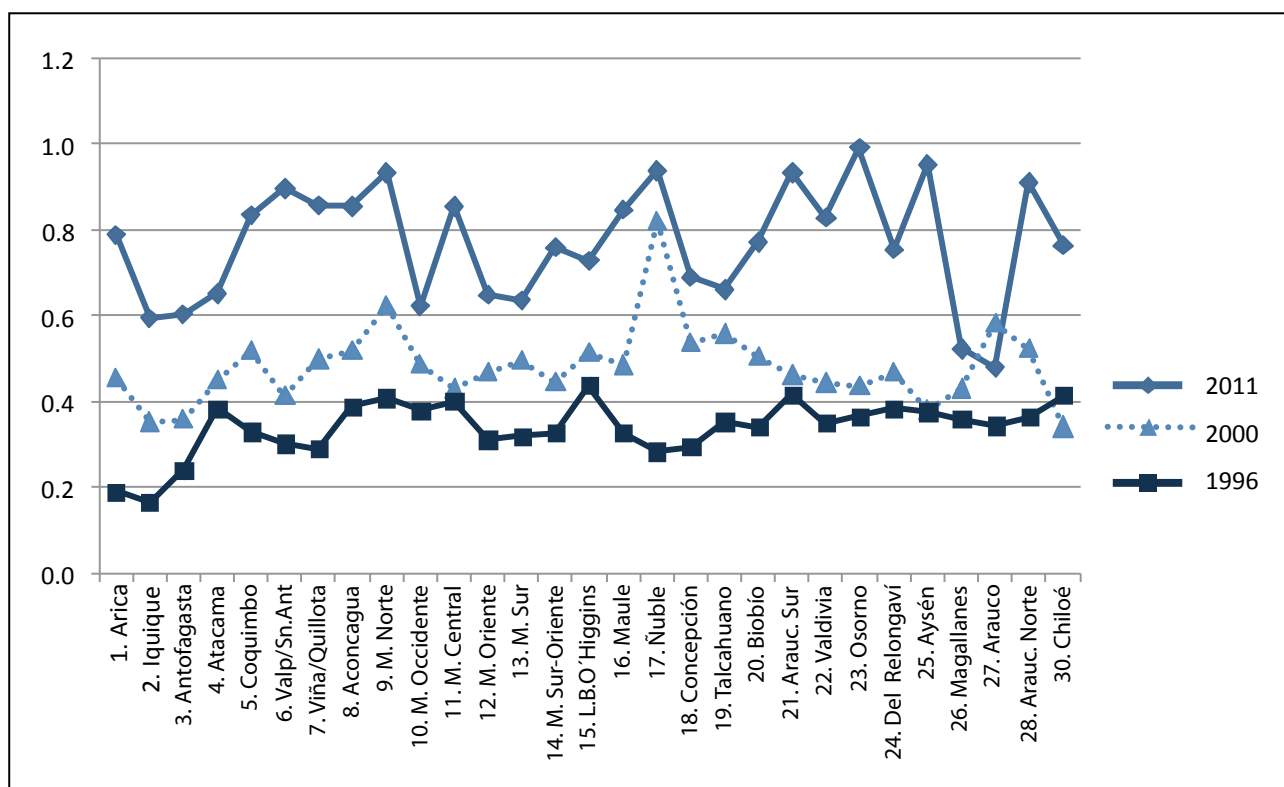


Source: Elaborated by lead author from CASEN data

Figures A14.3a: Income differences in utilization of general consultations and controls in Chile



Figures 14.3b: Geographical differences in utilization of general consultations and controls in Chile, 1996 to 2011



Source: Elaborated by first author from CASEN data

A15. Factors and barriers for change in Chile's PC system

	Institutions	Interests	Ideas	External events
Facilitators	<p>Policy legacy – long history of UHC and PC practice independent of political changes;</p> <p>PC public network based on centres with multi-professional teams ; rights and social guarantees in an integral social protection system</p> <p>Ministry of Health stewardship role – standards, incentives and control system</p> <p>Municipalities –proximity and attributions to foster intersectoral action</p> <p>Universities – historical collaborations with PC and health system, demonstration models</p>	<p>Municipalities – political interest in strengthening PC and improving service to increase voter satisfaction</p> <p>Strong support from non-medical professions and PC union (CONFUSAM) for reforms to strengthen PC</p>	<p>Social values of solidarity and equity</p> <p>Wide support in PC for the integral family and community health model. The social determinants of health perspective widely shared in the health sector, with a legacy of social medicine , social Christian movements</p> <p>Social orientation of health professions (may be changing because of increasing specialization)</p>	<p>Economic growth gave space to expand health spending</p> <p>Social movements for greater protection in health support reforms, (although often focussed on high-cost therapies and drugs the change needs to be modulated towards PC). Chile's inclusion in OECD UHC in the global post-2015 sustainable development agenda</p>
Barriers	<p>Hospital – centric health services and focus on urgent care</p> <p>Policy legacy – efforts to meet guarantees skew towards some problems and not others, creating discrimination and focus on curative rather than preventive services. Policy legacy – focus on maternal child PC centres when new models or PC working in the community are needed to address chronic health problems</p> <p>Political autonomy of mayors</p>	<p>Medical and pharmaceutical industry. Powerful associations not supportive of changes seen to threaten autonomy/ cost-containment goals Corporative interest of PC union focussed on salary and career objectives</p>	<p>Entrenched views by the public, valuing medical care, technology</p> <p>Tension between clinical (e.g. AUGE) and community approaches</p> <p>Unresolved tension between family medicine and basic specialist focus in PC</p>	<p>Consumerism and individualism in a market economy</p>
Promising practices	<p>Chile Crece Contigo</p> <p>AUGE Health guarantee system</p> <p>13 steps equity agenda (2008-2010). New policy focus on strengthening PC with new resources, incentives to hire/ train family health specialists and a chronic care model. Ancora model of family medicine with clinical excellence, with teaching and training</p>	<p>Community of practice for PC</p> <p>Ministries of Health and Social Development</p>	<p>Co-creation to adapt and expand best practices</p>	

A16. The Ancora Project: family medicine innovation in practice

In 2006 Pontificia Universidad Católica (PUC) de Chile, in collaboration with the Ministry of Health, the Southeastern Metropolitan Health Service and the municipalities of Puente Alto and La Pintana, implemented a novel approach in three health centres in low-income sectors in Santiago, called the Ancora Project. Building on the university's strength in family medicine and previous initiatives, the aim was to generate evidence to demonstrate the merits of the family health primary care practice model, combining a community and family perspective with strong clinical management.

Four years after the project started, three family health centres were established, operating as part of the public PC network in the two municipalities (Püschel et al. 2013). Currently the PUC health network, including the three Ancora centres is part of Christus Health, an international Catholic, faith-based, not-for-profit health system (<http://redsalud.uc.cl/ucchristus/>).

Open registration and free service provision requirements for FONASA affiliates are identical to those of other public PC facilities, under the agreement signed by the Ministry of Health, the Health Service and PUC (2006). The financing includes per capita allocations by FONASA (initially identical to that received by municipalities and subsequently lower due to differential calculation of adjustments) and a direct contribution from the university. The basic package offered was better than the standard benefits established for public primary centres (Family Health Plan) (Püschel et al. 2013). An initial version of the Ancora model was developed by PUC between 1999 and 2006, focussed on the offer of a private Family Health Plan by two ISAPREs which provided entitlement to care (diagnosis and treatment) in a Family Health Centre that followed the principles of the public

sector family health model, i.e. a interdisciplinary family health team with biopsychosocial focus, and integrated care emphasising self-care (Télez & Aguayo 2008). The Ancora approach is different to the public sector PC model in four areas: (1) public-private management, financing and provision; (2) family health teams headed by family medicine specialists and supported by PUC specialists, as well as training programmes to strengthen family health competencies; (3) more robust clinical and management information systems and technology; and, (4) primary care substitution of diagnostic and therapeutic procedures usually undertaken in secondary care (Püschel et al. 2013).

Evaluation of ANCORA project: A study evaluating the performance of Ancora CESFAM in areas of clinical effectiveness, user satisfaction and economic impact found: increased effectiveness of care in Ancora centres than municipal centres, reducing referrals to specialists (13 and 41% lower in Ancora centres), visits to hospital emergency services (19-25% lower in Ancora centres) and the number of hospitalizations (30% less in Ancora centres).

Overall user satisfaction was higher. On a scale from 1 to 7, Ancora centres had a score of 6.12 versus 5.2 in the national sample. Differences remained after adjusting for sociodemographic variables. These effects accounted for an estimated annual savings of \$1,690 million pesos (approximately US\$3 million) for the health system in 2010 from reduced emergency and specialist visits and hospitalization (Püschel et al. 2013; Red de Salud UC Christus 2014). Family health residents and university investigators have evaluated clinical and family health interventions, on referral rates (Mercado 2010), innovations in clinical care, model of care and administrative areas (Quiróz 2009; Morales 2008; Püschel & Thompson 2012), as well as on cost effectiveness (Peñaloza et al. 2010), among others.

