# TERRITORIAL COMMUNITY TEAMS IN EL SALVADOR

**UNIVERSITY OF WASHINGTON STRATEGIC ANALYSIS, RESEARCH & TRAINING (START) CENTER**

REPORT TO THE BILL & MELINDA GATES FOUNDATION

**PRODUCED BY: BROOKS MORGAN, BOYA GUO, MIRANDA DELAWALLA, & PAUL DRAIN**

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START CENTER

STRATEGIC ANALYSIS, RESEARCH & TRAINING CENTER

Department of Global Health | University of Washington

# PRE-IMPLEMENTATION

## SOCIOPOLITICAL LANDSCAPE

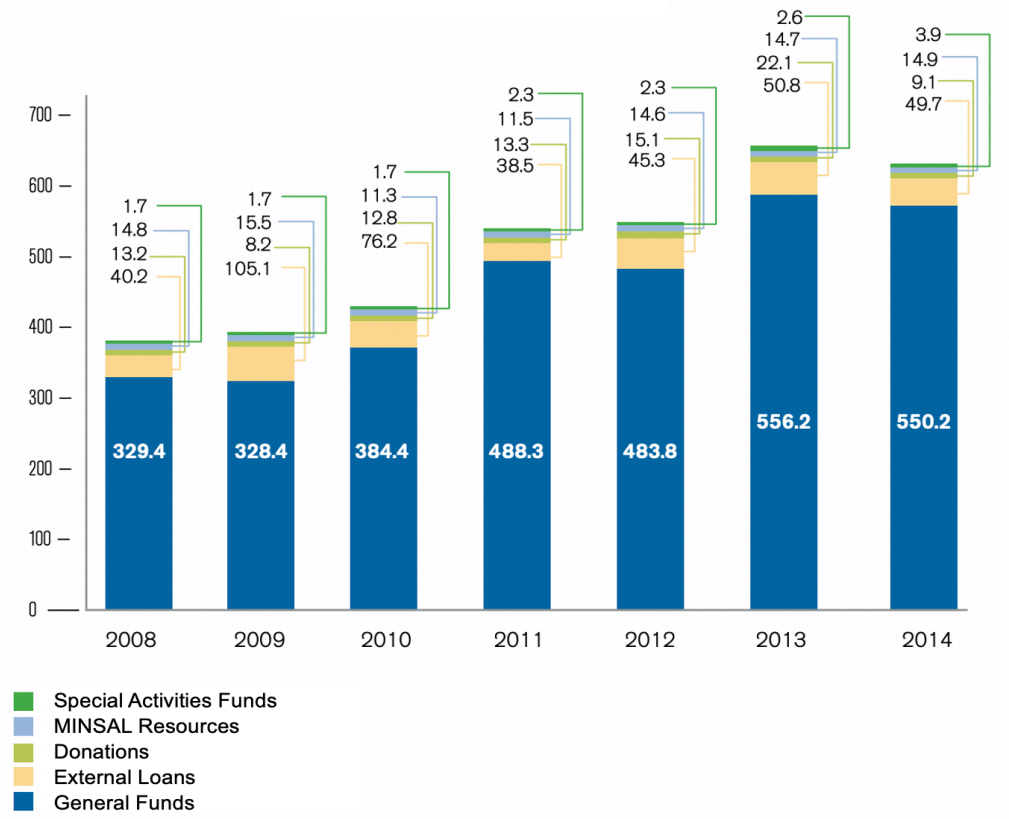
The story of health in El Salvador is a tumultuous one, comprised of economic growth, civil conflict, and policy swings before a top-down reform of the public health system in the late 2000s. In the 1970s, El Salvador ranked among the five least healthy countries in the world and had the lowest ratio of physicians to patients in Latin America.[1] During the 1980s, civil war forced a 50% reduction in health budget and the Salvadoran Ministry of Health (MINSAL) pulled services out of many regions altogether.[1] In 1992, revolutionary forces combined to form a new left-wing political party, the *Farabundo Martí National Liberation Front* (FMLN), seeking a horizontal relationship with social and popular movements.[1,2] Two decades under the right-wing *Alianza Repúblicana Nacionalista* (ARENA) party was characterized by corruption and neoliberal policies.[3] By 2006, many Salvadorans were outside the coverage of any care structure.[3] In a large shift in governance, in 2009, the FMLN won national elections and launched reforms of the public health system, along with other social policies, including assistance with education expenses, feeding programs for children, and a minimum pension for impoverished seniors.[1,4] These health systems reforms were outlined in the 2009-2014 strategic policy document *Building Hope*, which guided the reorganization and modernization of the National Health System.[2]

## HEALTHCARE LANDSCAPE

Before 2009, the health system was defined by inequalities secondary to both segmentation and fragmentation.[2] In this context, *segmentation* refers to the coexistence of autonomous subsystems responsible for providing health services to different sets of people; The Salvadoran Institute of Social Security covered employees in the formalized workspace, the Military Health Command covered members of the armed services, and the Institute for Teacher Welfare covered teachers and affiliated professions.[2] These modalities were financed through user, employer, and federal contributions, but remained autonomous and had the ability to subcontract services to the public or private sectors.[2] MINSAL and the National Health System were responsible for providing care to anyone not otherwise insured by the Social Security, Military Command, or Teacher Welfare programs. In 2010, this amounted to 72% of the Salvadoran population.[2,5] In addition to these entities, segmentation of the health system also included the entire for-profit sector, which not only cared for those with the ability to pay out-of-pocket, but also occasionally provided services on a contract basis to those some of those covered by public insurance schemes.[2]

Alternately, *Fragmentation* occurs within each segmented system of care and refers to a high-level lack of coherence in services due to multiple providers.[2] Within the various public sector insurance schemes, this manifested most notably from subcontracted services through the private sector (such as subcontracting of specialized care by the Social Security and Teacher Welfare programs) and

**Figure 1.** MINSAL modified budget by source of financing (millions of USD).[5] The federal budget for public health has grown under the FMLN and accounts for a majority of the Salvadoran health spending.




vertical programming for focused health issues.[2] Within MINSAL, there existed different work regimes for personnel, equipment, and many other circumstances that generated inequities and inefficiency in spending.[2]

In the 2000s, MINSAL was poorly funded. National expenditures for health fell from a recent peak of 8.2% of GDP in 1998 to 6.2% in 2008, before rising to 6.8% in 2011.[5] This amount of spending was significantly lower than the Region of the Americas as a whole (14.4% in 2009).[5] Around this time, MINSAL had a similar budget for the public care system as the Institute for Social Security had for their insurance program but four-times as many citizens to cover. Historically, MINSAL expenditure in relation to GDP was less than 2%.[6] Due to this underfunding, an important source of income was drawn from the Cost Recovery Program, wherein compulsory “voluntary fees” were collected from users of the public system.[7] These fees were eliminated from first-level facilities by the FMLN but this left funding in an even worse position.[7] Since that time, overall spending on health rose under the new administration; however, it remained largely flat with respect to actual purchasing power (**Figure 1**).[5] Relative to other countries in the region, spending on public-sector health (vs. private-sector) accounted for a high and growing percentage of overall spending (63.6% in 2011 compared to 47.9% regional average).[5]

Before the health system reforms in 2009, the National Health System comprised of 30 hospitals and 377 health units, though only 145 of them had laboratories.[7] This federal system only successfully provided care to around half of the uninsured population theoretically under its mandate (those not otherwise covered by other schemes), indicating that MINSAL was failing at briging large gaps in care for uninsured individuals.[2] These public health units, even when available, were not well-utilized. According to a 2008 household survey, when sick or injured, 48% of citizens would self-medicate and would not seek care.[8] The health system essentially followed a curative model, and lacked any coherent health promotion, disease prevention, or rehabilitation.[6] In an attempt to address some issues of access, MINSAL under the ARENA administration had contracted NGOs to provide health services to rural sectors. However, NGO teams were not permanently stationed in their service areas, often lacked physician team membrers or high-level curative capacity, and services were mostly limited to maternal and infant care.[4] Therefore, these NGO-sponsored mobile teams were fairly ineffective.

Due in part to segmentation and fragmentation, as well as poor funding, the pre-reform public health system was characterized by: 1) a poor referral system with no counter-referral of patients between levels of care, 2) lack of a single information system that accurately and qualitatively reflected data generated by MINSAL, the non-profit, and for-profit systems, 3) poor knowledge by MINSAL of cooperation and collaboration between international partners, NGOs, and social organizations, 4) precarious supply chains, forcing people to purchase their own health supplies from the grossly-expensive private market, and 5) very little investment or social participation in health.[2,6]

PAHO recently characterized two forms of health system transformations: economic-based reforms seeking to increase financial coverage through demand-side changes in health insurance and supply-driven reforms seeking to improve conditions of access to care through reforms in the organization of health services.[9] From 2009 onwards, El Salvador attempted supply-driven reforms, and succeeded in the formation of new, truly integrated health services networks.[9,10]

# IMPLEMENTATION

## THE MODEL

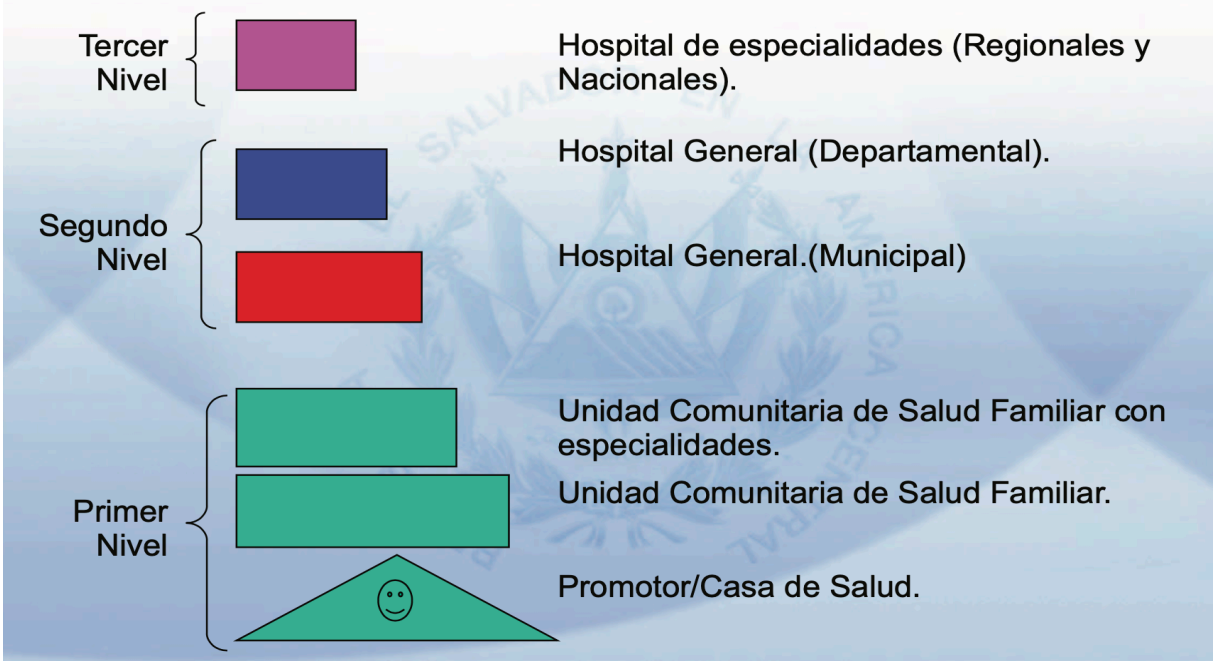
In 2009, The FMLN's major health system reforms included the abolishment of "voluntary fees" and a profound reorganization of the basic network of services provided by MINSAL.[2] These reforms were informed from years of armed conflict, when communities in the midst of violence managed basic health services.[2,4] The reforms to the health system would represent a redesign of established bureaucracies with input from international technical experts but would be executed through existing institutional channels.[4] PAHO's 2005 series of guidelines and technical papers titled "Renewing Primary Health Care in the Americas," argued in favor of comprehensive care and integrated health networks as opposed to a "add-on" solutions that sought to expand care via basic packages provided by mobile teams or other impermanent infrastructure.[4] Examples of models featuring comprehensive care provided by locally-integrated multidisciplinary teams – similar to that which El Salvador would soon implement – were found in Costa Rica, Brazil, Cuba, Paraguay, and semi-autonomous regions of Spain,.[4]

The National Health System features a three-level hierarchy of care, the first level of which was drastically redesigned. In addition to bolstering the cadre of existing pre-reform first-level care facilities – Community Family Health Units – primary care is provided by geographically empaneled *Equipos Comunitarios de Salud* (ECoS) teams, organized into family and specialized units, tasked with handling two levels of primary care (**Figure 2**).[11] The goal is for these teams to handle 95% of health problems that occur in the community.[6] Family health teams (ECoS F) were created to provide primary care close to communities and are comprised of a general physician, a nurse, a nurse technician, and three health promoters.[6,11] Each ECoS F team is responsible for around 600 rural or 1,800 urban families, though this can be modified based on population dispersion, geographical barriers, and other factors.[6,11,12] ECoS teams are responsible for the health of those living in their catchment area as opposed to waiting for individuals to seek care.

ECoS F teams visit families in their territory and collect data with the goal of community *dispensarization*.[6,11,12] *Dispensarization* refers to a proactive program that provides active, continuous, and controlled primary care in line with the needs of the individual and family and essentially amounts to characterizing the levels of risk and unique social determinants of health of families and communities.[11]

Families are classified as high-, medium-, or low-risk.[12] This designation determines both the comprehensiveness and periodicity of home visits by ECoS F teams.[12] Home visits range from 60 minutes every eight weeks by ECoS F teams plus follow-ups every four weeks by community health personnel for high-risk families down to 30-minute visits every six months by ECoS F teams plus follow-ups every three months by community health personnel for low-risk families.[12] The information

**Figure 2.** Three-level hierarchy of care within the Salvadoran public health system. The first level, primary care (in green), sits in between health promoters and municipal general hospitals and features both ECoS F and ECoS E teams. These are followed by secondary and tertiary levels of care, the organization of which did not significantly change.[6]




gathered on families and risk factors are, in turn, used to plan interventions that cover the entire life course, taking into account the Primary Health Care pillars of intersectoral action, social participation, and equity.[11] Interventions at this level of care are comprised of nearly 300 health "actions" and are grouped into health promotion/education, preventative care, treatment, and community rehabilitation.[11]

The ECoS F teams use tablets and mobile phones for data collection, including continual updating of family forms, tracking of chronically-ill patients who required follow-up, and the creation of geo-referenced maps.[11,13] ECoS F teams are expected to provide care at their respective facilities (often sharing facilities with existing Community Family Health Units) for three days each week and to visit communities for two days each week.[12] Additionally, teams are expected to participate in regional and local monitoring and evaluation activities, which include receiving technical assistance, guidance on administrative and managerial practices, and verification of compliance with MINSAL programs.[12] Team members participate in quarterly self-evaluations, bi-annual community assemblies are held to evaluate local operations, and monthly analyses of the success of the integrated referral system at preventing morbidity and mortality are undertaken.[12]

Beyond the family teams, representing a higher level of primary care, specialized ECoS teams (ECoS E) provide comprehensive specialty care and consultation after evaluation and referral by the ECoS F staff.[12] ECoS E teams are comprised of a pediatrician, obstetrician-gynecologist, internist, physiotherapist, nutritionist, psychologist, health educator, nurses and nursing assistants, dentists, and laboratory professionals.[11] Each ECoS E team is affiliated with a set of ECoS F units, which serve around 30,000 rural or 42,000 urban citizens (**Figure 3**).[11] Similar to ECoS F teams, ECoS E teams spend time both in their home clinics and visiting communities.[12] ECoS E teams may be split into two so that extra-clinic travel can be staggered and consistent.[12] Beyond the first level of care (ECoS teams), the second and third levels of care within the National Health System, public hospitals in the Integrated Health Services Network, are able to serve those requiring more intensive care, facilitated by a referral system that seeks to reduce pressure on hospitals and address health issues within the community.[6]

An integral facet of the reformed system of care is social participation. In 2010, the *Foro Nacional de Salud* – National Health Forum (NHF) – emerged from social movements to recognize that community participation is an essential component of health care.[1] The mission of the NHF is to contribute to consensus-building for strategic decision-making through broad, proactive, and permanent citizen participation.[6] The NHF collaborates and even co-governs with MINSAL.[1] The NHF is a space for community input, not a forum for NGO or governmental institutions.[6] Since 2010, the NHF has held thousands of community assemblies to address health issues and mechanisms to integrate NHF representatives into MINSAL management committees are present and functional.[2,6]

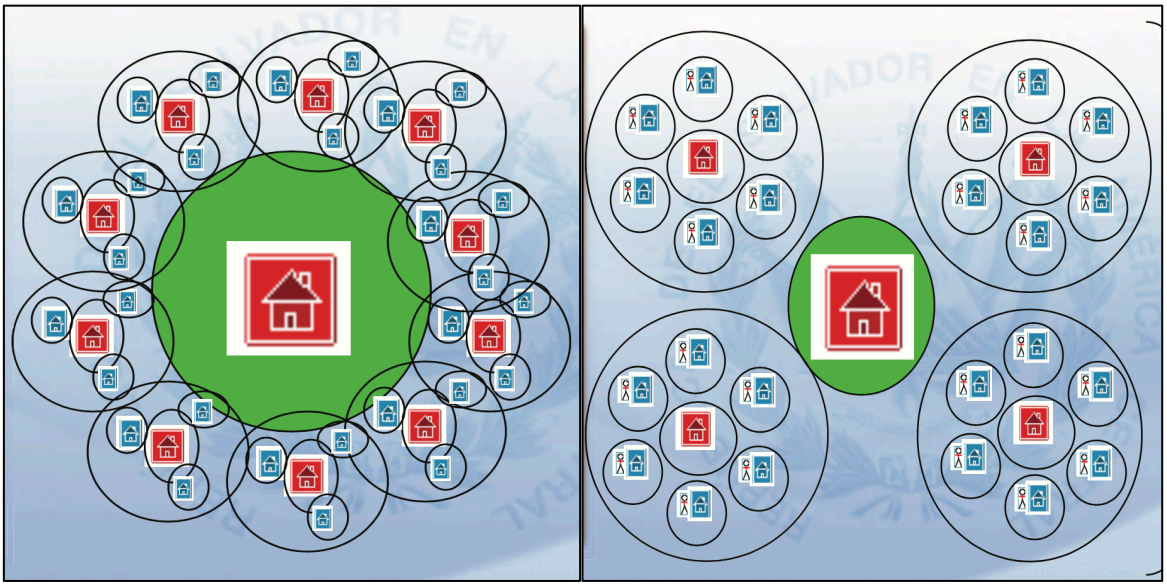


**Figure 3.** Schematic of ECoS E and F teams in a rural area (LEFT). A single specialized ECoS E team (green) is affiliated with multiple ECoS F teams (surrounding), each of which covers approximately 600 families, for a total of 6,000. In more densely populated urban areas (RIGHT), the model is altered. Each ECoS F team is responsible for more families and each ECoS E team, fewer family teams.[6]

Another example of governance by many stakeholders, in 2009, an executive decree created the Intersectoral Health Commission, where over 40 public, private, and non-governmental institutions work to identify and mitigate social determinants of health that fall outside the mandate of MINSAL and the National Health System.[2]

## THE IMPLEMENTATION PROCESS

Starting in 2009, the new FMLN government undertook a national investigation and analysis of the gaps in care, including profiles of causes of morbidity and mortality.[6] Eight new strategic axes were adopted, including the Integrated Health Services Delivery Network (**Table 1**).[2,6] Investment by the United States helped strengthen the health system infrastructure, and social movements such as the NHF supported the reform process by ensuring community participation and social accountability.[11]

An initial challenge was dealing with inappropriate human resources. There existed a relatively high production of health workers, but there was an estimated 43% deficit of *primary care* workers compared to other employment categories. In addition, there was poor regulation of the training and certification process, differences in working conditions and compensation between MINSAL and Social Security units, and misallocation of MINSAL human resources in geography and level of care.[2,14] This misalignment of resources meant a lack of health workers adequately trained for the implementation of comprehensive primary care reforms.[11,14] This mismatch was partially due to weak coordination and communication between health sector institutions and worker training centers.[14]

To improve human resources, El Salvador's government created a Directorate of Development for Human Resources for Health, an intersectoral commission with the task of coordinating health-related activities, including those related to human resources for health.[14] This commission includes the Ministries of Health, Labor, Treasury, and various public agencies.[14] The National Health Strategy sought to improve data collection for strategic management of the development of human resources for health, working conditions and occupational health for employees, capacity of community health workers. They also provided incentives for working in remote rural areas, and increased nursing and specialist staffing and training.[2,14] By 2015, health education was oriented towards community health, and more health care workers were being trained.[15]

Political push-back slowed reforms in the second five-year strategic period.[2] Among the opposition's goals are undoing the abolition of out-of-pocket payments for the use of public care, the dispensing of the ECoS teams (which are called wasteful and inoperative), threats to the legal and financial stability of the reform process, and an overtaking of the National Directorate of Medicines, which would lead to the abolishment of drug price controls.[2] The Health Reform Congress – reporting from MINSAL – characterizes these threats as an "abandonment of the concept of health as a fundamental human right, to be replaced by the concept of health as a commodity."[2] Additional barriers to timely primary care reforms noted by the Health Reform Congress include a sluggish bureaucracy and continual

**Table 1.** Eight Strategic Axes for health reform in El Salvador.[6]

| STRATEGIC AXIS | DESCRIPTION |
|---|---|
| I. Integrated Health Services Network | Serve the Salvadoran population through comprehensive and integrated service networks that improve living conditions, guarantee access to health services, and bring services closer to communities. |
| II. Human Resources | Human resources in health should be the cornerstone of the new system. Focuses on technical and professional training, employability, and a decent working environment. |
| III. Responding to Demand for Medicines | Create the National Directorate of Drugs and Medicines, consolidate regulatory authority under MINSAL, and promote sustainability of EPI and cold chains. |
| IV. National Health Forum | Built a broad popular movement for the full exercise of the right to health and require participation of social movements in health policy. |
| V. National Emergency Medical System | Establish national system for emergencies with a goal to reduce mortality and post-trauma sequelae related to health emergencies, accidents, and violence by improving organization, coordination, and infrastructure. |
| VI. Strategic Information System | Consolidate all institutions and sources of data into a single information system, which will allow for identification and measurement of inequalities in outcomes, operations, and risks in the Salvadoran population. |
| VII. Articulation with other Health Providers | Progressive financial integration of public health system with other entities (such as the Social Security network), including joint provision of services and a more equitable cost compensation system for utilization of services by a member of another network. |
| VIII. National Institute of Health | Creation of a National Institute of Health, a scientific-technical organization subordinate to MINSAL, to head the domains of research, technologies, quality control, and other necessary functions. |

budgetary insufficiencies.[2] Futher, there appears to be a measure of fractionalization within the reformers (the Salvadoran government, MINSAL, the FMLN, social movements, and health personnel themselves).[2]

## POST-IMPLEMENTATION

### BENEFITS AND DRAWBACKS OF REFORM

In terms of financing, infrastructure and human resources, El Salvador's reforms have already netted returns. In the first ten years, public health expenditure increased by 34% (though it was notably low beforehand).[5,13] The total number of first-level health facilities (Community Family Health Units) increased from 377 (2009) to 752 (2017), categorized into 420 basic, 293 intermediate, and 39 specialized units.[11] In the first seven years following the reorganization of the public health system, 578 ECoS F teams and 39 ECoS E teams were formed and now serve nearly 2 million people in 187 municipalities of highest need (of 262 total), covering 70.9% of El Salvador's territory.[2,11] By the end of 2018, only 136 ECoS F units (72.7%) were staffed with the full complement of team members.[2]

Improvements in human resources were prioritized early, and human resources for health tripled in the first five years.[15] In an effort to expand care to areas of highest need, the distribution of these human resources took into account poverty, rurality, and prevalence of malnutrition.[2] However, equitable distribution of workers regionally and between specialties has yet to be achieved.[15] Though the rural density of health resources tripled by 2015 and the gap between urban and rural resources shrank by 30%, there is a continual challenge to place qualified workers far from urban centers.[15] In a measure of success, as of 2015, 40.8% of physicians in the National Health System worked at the first level of care, which improves the population's access to qualified resources.[15] A 2014 PAHO evaluation noted committed leadership as an essential component of carrying out reform in the midst of financial, institutional, and technical difficulties.[5]

In terms of the model of care, geographically empaneled regions allowed for a defined territorial base for ECoS teams, making them directly responsible for the health of their constituents.[11] For example, a patient living within a given catchment with capped number of citizens has access to a specific individual multi-disciplinary team, thus addressing some of the fragmentation and lack of continuity previously prevalent in the health system.[11] However, the National Health System lacks an explicit package of benefits and healthcare services are delivered according to the capacity of the providers.[16] Services will remain without cost but the roster of benefits (of the 300 "Health Actions" referenced in the strategic document) may vary from team-to-team.

El Salvador has shown improvements in health care outcomes. From 81% in 2012, facility delivery of births increased to 99.8% by 2017, far exceeding initial goals.[17] Infant mortality fell from 26.9 per 100,000 live births (2000) to 12.5 (2017) while maternal mortality declined from 65.4 deaths per 100,000 live births (2006) to 28.6 (2018).[2,17] These improvements in maternal and child health outcomes were attributable to the increase in facility births, improved neonatal equipment, and better access to qualified birth attendants. The NHF developed proactive involvement and performed audits of every maternal death.[11,15,17] In terms of child health, chronic malnutrition for seven to nine year-olds fell by 42% between 2007 and 2017.[2] On a larger scale, in the ten years following reforms, El Salvador's Gini coefficient and Human Development Index both improved.[13]

In a 2012-2013 survey of perceptions of health care in Latin American countries, financial barriers were not among the complaints about the revamped health care system in El Salvador, whereas previous "voluntary fees" prevented some from seeking care.[16] Similarly, the survey noted long waiting times for specialist visits and difficult communication with clinics, including challenges in obtaining care from the public system outside of business hours.[16,18–20] Not specifically addressed by the 2009 reforms, many people still remain without formal health insurance (such as the Social Security program or private insurance).[16]

# DATA AND METRICS

## TRANSFORMING DATA SYSTEMS

The National Strategic Plan noted the importance of building and consolidating data systems to improving healthcare. MINSAL aimed to consolidate into a single information system the disparate streams from both public and private sectors.[6] In 2010, an Information and Communications Technologies Directorate was established within MINSAL and commitments were made to ensure sustainability of the new unified information system and the dispersion of data.[2] The Health Care Reform Congress praised the creation of the Unified Health Information System, which PAHO also regards as one of the three best in the continent.[2] They refer also to the success of the Health Surveillance System (a product of mandatory reporting of certain diseases) and highlight future products such as the Atlas of Health Inequities and unified electronic health records.[2]

The reform process succeeded in unifying over 40 individual data systems into a single health information system as well as increasing the number of "Notification Units" – which contribute weekly health information – from 311 to 1,234.[2] This includes all public and some private providers.[2] The Reform Congress cites recent success in the management of mosquito-borne illnesses as an outcome of improved surveillance and data synthesis.[2]

Finally, an Integrated Patient Care System is being implemented over time, which, in the form of an online patient record, will bring together clinical records, imaging, tests, prescriptions, and other data into one cloud-based file accessible between providers.[2] In 2019, this system was being rolled out in 30 hospitals and some Community Family Health Units.[2] However, challenges of implementation include budgetary constraints limiting the number of hospitals and Health Units being brought online, lack of motivation to change by staff, resistance in the private sector regarding mandatory reporting of illnesses, the social risk of updating family records via tablets, and inadequate internet access at some clinics.[2]

The initial strategy document included a proposed shift from traditional epidemiological surveillance to comprehensive public health surveillance.[6] The goal was to not only implement sentinel surveillance of health conditions – beginning with diarrhea, respiratory infections, and meningitis with a focus on children under five years of age – but to supplement it with the inclusion of information on demography, health events, the functioning of the health system, and public opinion.[6]

## CONCLUSION

El Salvador's comprehensive, top-down reform of their public health care system in the late 2000s was an attempt to expand access to health care to those not previously covered by risk protection schemes. The introduction of territorial community teams (ECoS) did not address the segmentation and fragmentation within the health care system, but did improve care services for poor, rural, or unemployed people. Before the reforms, the lack of provider options, ineffectiveness of NGO mobile teams, and burden of required "voluntary" out-of-pocket fees led many to avoid seeking care even in the face of illness. The formation of multidisciplinary, proactive, family medicine-based teams, beginning in the neediest municipalities, meant that health was not only the responsibility of the patient, but the concern of an assigned set of providers as well. The expansion of health care was facilitated by the integration of mobile technologies and referral networks between family and specialized care teams. The integration of the NHF alongside MINSAL means that the Salvadoran citizenry have a true measure of governance over their own health services. While the development of a truly equitable and efficient health care system will require more reforms, El Salvador has shown that bringing health to the doorstep of those that need it most is a feasible first step in truly making health a human right.

# REFERENCES


1. León M, Jiménez M, Vidal N, Bermúdez K, De Vos P. The Role of Social Movements in Strengthening Health Systems: The Experience of the National Health Forum in El Salvador (2009–2018). *Int J Heal Serv*. 2020. doi:10.1177/0020731420905262
2. *Health Care Reform: Beyond Health Services*. San Salvador; 2019. https://www.salud.gob.sv/download/libro-reforma-de-salud-mas-alla-de-los-servicios-de-salud-congreso-de-la-reforma-de-salud-de-el-salvador/.
3. Bloom A. Universal health care in El Salvador - A Personal Reflection. CISPES. http://cispes.org/media/el-salvador-watch-newsletter/esw-articles/universal-health-care-in-el-salvador-a-personal-reflection?language=es. Published 2012. Accessed September 8, 2020.
4. Clark MA. The New Left and Health Care Reform in El Salvador. *Lat Am Polit Soc*. 2015. doi:10.1111/j.1548-2456.2015.00291.x
5. *El Salvador on the Way towards Universal Coverage of Health: Achievements and Challenges*. San Salvador; 2014. https://www.paho.org/els/index.php?option=com_docman&view=download&category_slug=documentos-estrategicos&alias=1482-el-salvador-en-el-camino-hacia-la-cobertura-universal-de-salud-logros-y-desafios&Itemid=364.
6. *The Reform of Health in El Salvador*. San Salvador; 2009. https://www.paho.org/els/index.php?option=com_docman&view=download&category_slug=reforma-del-sector-salud&alias=1047-reforma-de-salud-1&Itemid=364.
7. Acosta M, Sáenz M del R, Gutiérrez B, Bermúdez JL. The health system of El Salvador. *Salud Publica Mex*. 2011. doi:10.1590/S0036-36342011000800014
8. *Household and Multipurpose Survey 2008*. El Salvador; 2009.
9. PAHO. *Health in the Americas 2017: Stewarship and Governance Towards Universal Health*. Washington, DC; 2017.
10. Báscolo E, Houghton N, Del Riego A, de citar Báscolo FE, Riego Lógicas DA. Types of health systems reforms in Latin America and results in health access and coverage. *Rev Panam Salud Publica*. 2018. doi:10.26633/RPSP.2018.126
11. WHO. *Country Case Studies on Primary Health Care: El Salvador: Territorial Community Teams*. Geneva PP - Geneva: World Health Organization; 2018. https://apps.who.int/iris/handle/10665/326087.
12. *Technical Guidelines for Family ECoS and Specialized ECoS*. San Salvador; 2017.
13. Jimenez Carrillo M, León Garciá M, Vidal N, Bermúdez K, De Vos P. Comprehensive primary health care and non-communicable diseases management: A case study of El Salvador. *Int J Equity Health*. 2020. doi:10.1186/s12939-020-1140-x
14. WHO. El Salvador. Global Health Workforce Alliance. https://www.who.int/workforcealliance/countries/slv/en/. Accessed September 8, 2020.
15. Elias M. *A Regional Perspective: Strategy on Human Resources for Universal Access to Health and Universal Health Coverage. Perspectives from El Salvador.*; 2017.
16. Pérez-Cuevas R, Guanais FC, Doubova S V., et al. Understanding public perception of the need for major change in Latin American healthcare systems. *Health Policy Plan*. 2017. doi:10.1093/heapol/czx020
17. World Bank. Renovating the Public Health Care System in El Salvador. https://www.worldbank.org/en/results/2019/04/25/renovating-the-public-health-care-system-in-el-salvador. Published 2019. Accessed September 8, 2020.
18. Doubova S V., Guanais FC, Pérez-Cuevas R, Canning D, Macinko J, Reich MR. Attributes of patient-centered primary care associated with the public perception of good healthcare quality in

Brazil, Colombia, Mexico and El Salvador. *Health Policy Plan*. 2016. doi:10.1093/heapol/czv139

19. Guanais F, Doubova S V., Leslie HH, Perez-Cuevas R, García-Elorrio E, Kruk ME. Patient-centered primary care and self-rated health in 6 Latin American and Caribbean countries: Analysis of a public opinion cross-sectional survey. *PLoS Med*. 2018. doi:10.1371/journal.pmed.1002673

20. Macinko J, Guanais FC, Mullachery P, Jimenez G. Gaps in primary care and health system performance in six latin American and Caribbean countries. *Health Aff*. 2016. doi:10.1377/hlthaff.2015.1366