

**Guidance on involving Social Security Organizations
in TB Care and Control**

Project report to the Tuberculosis Control Assistance Programme
(TB CAP)

Project number: APA4, C3-03

The World Health Organization

Management Sciences for Health

The role of Social Security Organizations in improving coverage, quality and sustainability of TB care - lessons from the Philippines, Mexico and Peru

Introduction

Tuberculosis still is the single most important infectious disease cause of morbidity and mortality and represents an important global public health problem. WHO's Stop TB Strategy¹ recommends better coordination between all health care providers to ensure prompt identification of TB cases and provide adequate access to good quality DOTS services ensuring TB control.

Access to affordable health remains a significant barrier to TB control and it is a global priority. The World Health Assembly recognised that health is a key factor in the fight against poverty, but paradoxically, with existing health care financing systems a large number of families and individuals will become impoverished by their expenditures in health care and drugs or as a direct result of disease and incapacity. In 2005, the Member States of WHO adopted a resolution encouraging countries to develop health financing systems capable of achieving and/or maintaining universal coverage of health services defined as "access to adequate health care for all at an affordable price". The increased level of inequity in health and the rising costs of health care provision have stimulated health care reform efforts in many low- and middle-income countries moving away from out-of-pocket payments and searching for more efficient health care systems. Introducing other sources of funding, pooling funds to spread risks and developing prepayment mechanisms have resulted on an increasingly more prominent role for health insurance schemes.^{2,3}

More than 60% of the world's countries still need to pursue efforts towards the introduction of universal health coverage and advanced risk-sharing schemes.⁴ Health financing reforms in most low-income countries promote social and micro health insurance, in order to reduce direct spending by patients.⁵ Several health financing methods could contribute to improve access to health care among all of a country's population groups. Risk-sharing in a health financing system through managed care programmes or 'Advanced' risk-sharing either through general tax revenue (often the main source of financing health services), or through social health insurance systems may be likely to increase access to care for those in greater need. Social health insurance spreads the immediate burden of financing among various groups, including the workers, the self-employed, enterprises and the Government. Governments are also recommended to risk pools for those uninsurable individuals who are not part of an employer group.⁴

Efforts towards effective universal health coverage have seen the introduction of different models of Health Insurance Schemes (HIS) with diverse sources of funding (employers contribution, tax revenues, insurance premiums, cost-sharing, etc) aiming to achieve equitable health financing, universal access to health care and to avoid impoverishment due to illness, inability to work or direct health care payments. Social Health Insurance has also been used as an approach to increase efficiency of healthcare system and consumer satisfaction in provision of healthcare services. The impact of health insurance is, as yet, difficult to assess. In spite of their limits, social health insurance schemes continue to be implemented, but as a part of hybrid financing system, fitting with the abilities of low-income countries.⁶

There are different types of HIS and diverse implementation and service delivery models. Often HIS provide services through their own network of health facilities outside the MOH network and national TB programmes (NTP) boundaries; consequently, the quality of the care provided is variable and TB cases are not routinely notified to the NTP. One of the components of the Stop TB Strategy recommends involving all health care providers - public and private - in TB control and applying international standards for TB care across the whole health system.⁷ This component intends to intensify efforts and establish alliances between the different stakeholders in health provision in the public sector (public-public) and those in the private sector (public-private) aiming to improve health care coverage and provision, human resource development and quality of TB control. In many low- and middle-income countries, HIS provide health services to considerable proportions of the population delivering TB care of unknown quality, often not in line with NTP guidelines and with variable levels of case detection and notification. By liaising with HIS providers NTPs could significantly:

- Increase DOTS coverage
- Address equity of provision of TB care
- Increase case detection and notification
- Standardize TB treatment
- Ensure provision of adequate TB care
- Tap into HIS resources reducing costs to healthcare systems
- Better utilize the often limited human resources for health.

Collaboration between NTPs and HIS are possible at different levels of the implementation of the Stop TB strategy and TB control activities such as case detection, recording and reporting, laboratory capacity, treatment, information systems, monitoring and evaluation (M&E), research and development (R&D) and training/human resource development.

Several NTPs have already embarked on initiatives to cooperate with HIS often pioneering models of collaboration. This review documents some such examples focussing on lessons learnt, opportunities and threats and key issues a NTP might face when approaching, adopting, introducing and sustaining HIS involvement in TB control.

Methods

Three countries with varying levels of collaboration between NTPs and different models of HIS were identified, namely The Philippines, Mexico and Peru. Countries were contacted and a team of experts from WHO and partner organizations (MSH, IUATLD) visited them to gather evidence of collaboration and data on the different levels of coordination and collaborative working between NTPs and HIS for TB control.

Semi-structured interviews with members of the NTP, Ministry of Health (MOH) or Department of Health (DOH), Public Health coordinators and sub-coordinators, epidemiologists, managers and assistant managers from Health Insurance organizations as well as staff at hospitals, health centres/health posts, laboratories and TB patients were conducted. Visits to health facilities from the MOH as well as private or public facilities run by HIS were performed and data on the degree of integration and collaboration between the systems was gathered, focussing on opportunities and barriers to effective collaboration.

Regulatory documents such as Government resolutions, Health Insurance organizations statutes and technical documents like NTP guidelines, academic and technical guides, training materials, clinical or diagnostic pathways, medicine supplies and recording and reporting mechanisms and information systems were discussed. In the case of Mexico, a data collection instrument was developed and applied to six health facilities (HFs) and five administrative units; 17 semi-structured interviews with different cadres of staff both from the MOH and HIS were also conducted.

Results

General observations

There were marked variations in the organizational model of the NHIS in the three selected countries, with differences in coverage of the population, regulatory bodies, organizational structures, sources of funding and service delivery models.

In the Philippines, all Health Insurance providers are grouped under the Philippine Health Insurance Corporation (PhilHealth), the legally recognised umbrella organization coordinating all HIS, services are provided through a selection of private and public health facilities including those of the DOH network. Health Insurance Schemes are an important element of Mexico's health system; government-run health and social security institutions provide care for approximately 50 millions of Mexico's gainfully employed through their own network of health facilities. Peru's major NHIS (EsSalud) evolved as a social security organization of the Ministry of Work(MOW), it covers approximately 20% of Peru's gainfully employed population; NHIS in Peru provide services through their own network of health facilities independent from the MOH.

Similarly, the processes of cooperation between NTPs and HIS in these countries were at different stages of evolution. The key elements of the collaboration in the Philippines are the standardisation of TB care at both public and private health facilities and increased DOTs coverage through the development of a certification and accreditation process for those health facilities following NTP guidelines and the collaborative work towards establishing a DOTS tariff. PhilHealth in collaboration with the NTP has agreed to only utilise accredited health facilities. This collaboration has also resulted in increased economic and human resources for TB care as well as ensuring all TB service providers follow NTP guidelines.

Despite dissimilar parallel structures at the NTP and NHIS, the Mexican and Peruvian NTPs have clear normative and regulatory roles in setting standards and guidelines that should be followed by all health care providers. In Mexico, the NTP and NHIS organizations convene joint annual seminars and workshops on TB control as part of continuing professional development (CPD) for health professionals from both MOH and NHIS; Mexico's NTP has also collaborated with NHIS on the development of regulatory and technical guidelines for TB detection and control. Cooperation between the NTP and NHIS has contributed to ensure a chain of service suppliers located in key positions within each of the 245 Health Districts in the country.

There are many organizational and bureaucratic barriers to the collaboration between the NTP and NHIS in Peru; in spite of this, many *ad hoc* collaborative initiatives have developed mainly based on the good will of those delivering front line services. These good examples of collaboration, although effective, are not officially recognised, often contravene bureaucratic regulations and therefore are not sustainable.

The case of The Philippines:

The Philippines is a middle-income country with an imbalanced distribution of economic growth and productive resources. The country is prone to natural disasters such as floods, typhoons, earthquakes and volcanic eruptions; economic growth is modest compared with other Asian countries and poverty is predominant in rural areas and urban slums. The Philippines is among the 22 high TB burden countries (HBC) in the world, and have an estimated 260,000 incident cases of TB annually.

The Philippines underwent health system de-centralization in the early 1990's and by 1995 the Department of Health (DOH) had devolved control of health service units to 77 provinces and over 1600 cities and municipalities. More recently the government has strengthened its health sector reform implementation through four pillars: health care financing, regulations, governance and service delivery. Government commitment to TB control is strong, and there has been an increase in funding from domestic and external sources. Collaboration between the NTP and the National Health Insurance Program (NHIP) in The Philippines is well established. The main principles of the collaboration refer to the certification and accreditation of DOTS facilities and the establishment of a National TB outpatient management tariff.

The National TB Programme The NTP, created in 1978, is managed by the DOH through the Infectious Disease Office (IDO) of the National Center for Disease Prevention and Control (NCDPC), with the support of the Center for Health Development (CHD) and its seventeen regional health offices. DOTS, introduced in 1996, achieved country-wide geographical coverage in 2003. The provincial and city health offices (PHO/CHO) oversee the delivery of TB services at rural health units (RHUs) in rural areas and in health centres (HC) in urban areas. TB drugs are purchased by DOH from the Global Drug Facility.

A large proportion of TB patients are managed in the private sector; the TB prevalence surveys from 1997 and 2007 showed that close to 40% of people with TB symptoms presented to a private provider⁸ and in 2007 the private sector contributed with 9% of the national case detection rate. Case detection and treatment success rates have exceeded the global targets since 2004 and continue to improve as Public-Private Mix (PPM) initiatives are expanded and community task forces become involved in case-finding. EQA has been extended to all diagnostic facilities, and culture is becoming more widely available.⁹

In 2003, the Public-Private Mix DOTS (PPMD) approach was formally launched in collaboration between DOH and the Philippine Coalition Against Tuberculosis (PhilCAT). Under the PPMD model, private or public physicians can refer TB suspects and cases for diagnosis and treatment with free TB drugs to designated PPMD Units that have been specially trained, equipped, certified and accredited to receive patients from the private sector. The PPMD Units have been established both in private and public institutions, most commonly in hospitals or large clinics.

The DOH has made great strides in scaling up PPMD in the country. National and regional coordinating committees for PPMD have been created, operational guidelines for PPMD developed, training materials prepared, and by 2007 over 220 PPMD units were established across all regions in the country, covering an estimated 30 million people (about 1/3 of the population). The 2007 the case detection rate in The Philippines was 76% and the treatment success rate was 88%; private providers contributed about 18% of all new smear positive TB cases treated under DOTS in those areas where PPMD units were in place.

The National Health Insurance System The 1995 “National Health Insurance Act”¹ created the Philippine Health Insurance Corporation (PhilHealth) that manages the NHIP. By June 2008 approximately 73% of The Philippines population was covered by PhilHealth (66 million). PhilHealth intends to achieve universal coverage. About half of those people insured by PhilHealth belonged to the public or private employed sector, whose premium is paid through payroll contribution; around 15 million PhilHealth members (22%) are under the “indigent or sponsored program” whose premiums are paid by national and/or local government units - premium sharing is dictated by the income class of the province or municipality. Other categories of members are individually insured, overseas workers and pensioners. PhilHealth insurance covers mainly inpatient care, but also a set of outpatient packages for maternal and child health and selected diseases such as tuberculosis. Services to PhilHealth members are provided through 1,536 hospitals and 1,211 health centers belonging to the general health care (DOH) network, including accredited private sector facilities.

NTP-NHIS Collaboration. –

The PhilHealth DOTS Out-patient Package The TB DOTS outpatient package consists of a payment provided by PhilHealth to public or private DOTS facilities that have been certified by NTP/PhilCAT, and accredited by PhilHealth to reimburse for the treatment costs of new TB cases insured by PhilHealth. The tariff was set up by the DOH in collaboration with PhilCAT based on the cost of specific TB management activities (see table 1).

Table 1. Recommended DOH/PhilCAT reimbursement allocation.

Activities	Allocation		Recipient
	Phil. Pesos	USD	
Referral of a New TB case	100	2	DOTS referring physicians, BHWs
Consultation services of DOTS referring physician	1,050	22	DOTS referring physicians
QA for sputum microscopy	200	4	Provincial/City Health Office QA Program
TB Diagnostic Committee	700	15	TB Diagnostic Committee
Pool for contingency drugs	1,250	26	RHU/HC/PPMD unit
Recording and reporting sessions with DOTS referring physician	200	4	RHU/HC/PPMD unit
Production of NTP/PPMD forms	200	4	RHU/HC/PPMD unit
Advocacy activities	300	6	RHU/HC/PPMD unit
	4,000	83	DOTS facility

The package covers PhilHealth members and their dependents (adult or children) and does not include retreatment or MDR TB treatment. To be eligible PhilHealth members need to have paid at least three monthly premium contributions within the six months prior to referral to the DOTS Center (no payment is required for indigent members) and need to be covered when treatment is started. Upon approval, PhilHealth pays a fixed rate of P4,0000 (about \$US 83) to the accredited DOTS facility. Payments to public DOTS facilities are accrued to the local government unit account unless the public DOTS facility has its own account and can control how the money is spent. Private accredited DOTS facilities (PPMD Units) accrue the reimbursement to the mother institution.

The certification and accreditation process conducted collaboratively by DOH/PhilCAT and PhilHealth involves an assessment of the facility based on a set of technical criteria;¹⁰ certified facilities can apply to PhilHealth for accreditation.

¹ Republic Act 7875

PhilHealth accreditation lasts one year and the application costs P1,000, additional requirements include mayor's permit to function (for private facilities), list of equipment and supplies, photos of staff and clinic, and certificate of premium contribution of staff.

Project evaluations¹⁰⁻¹⁴ have demonstrated the feasibility of effectively engaging different types of health care providers in DOTS implementation. Collectively PPMD projects have shown a sustained impact on case detection and treatment success rates. As of December 2007, 48,206 patients were treated with high success rates at the PPMD units, over 60% of which were accredited by PhilHealth; around private 5,000 physicians were trained on DOTS, all regions had at least one DOTS accredited health facility and the proportion of accredited facilities among those certified increased to 79% from 40% in 2005.

Accredited DOTS facilities have rapidly increased from 8 in 2003 to 663 in 2007 representing about 20% of the estimated number of eligible facilities in the country. In spite of this, there is great variation in the number of accredited DOTS facilities across different regions partly due to cumbersome and time consuming certification and accreditation processes; the application/renewal fee is perceived too high and many facilities are not incentivised to become accredited (or renew their accreditation) because PhilHealth coverage of their served population is low and therefore it does not represent a significant contribution to its revenue or, in the case of public health facilities, because the benefits are not paid directly to the facility but to the local government unit, and revenue may be spent elsewhere, even outside health care.

The collaboration between the NTP and PhilHealth has increased resources for DOTS services. However, although 70% of the population is covered by PhilHealth only 20% of people treated under DOTS are PhilHealth members. This is partly due to the low commitment from local governments to cover insurance fees of indigent and/or unemployed people resulting in low coverage of TB patients who are often in these groups. In 2007 only 1,214 TB patients (<1% of all registered TB cases) were reimbursed through PhilHealth and there was great variation in the number of claims across the regions. Approximately 20% of the revenue of PPMD facilities was covered by PhilHealth payments with significant variation, some received up to 40-50% of their revenues from PhilHealth, demonstrating the potential for this model as a mechanism for sustained financing. However, some DOTS facilities –particularly those in the public sector- are unlikely to claim reimbursement as there are often long delays in payments. Higher PhilHealth claims from private DOTS facilities may result from financial incentives to both insured clients and private facilities; private DOTS facilities also have a higher proportion of their clients covered by PhilHealth, since their patients are more likely to be employed in the formal sector than patients attending public facilities.

Finally, some PhilHealth insured patients are reluctant to declare their insurance status and prefer attending public facilities due to TB stigma (reluctance to disclose the diagnosis in health insurance documents), cumbersome paperwork, or convenience (services in public facilities are completely free of charge whereas in private DOTS clinics there are usually charges for consultations and diagnostic tests, even though these are fully covered for PhilHealth members).

Nevertheless, collaboration between the NTP and PhilHealth has resulted in increased DOTS coverage and improved access to good quality services; the government is committed to continuous collaboration and strengthening DOTS certification and accreditation is one of the eight strategies under the MOH/NTP 2006-2010 Strategic Plan to control TB. Efforts with PhilHealth and PhilCAT to

simplify and speed up the certification and accreditation processes together with additional technical assistance to DOTS facilities to help the certification process and promote PhilHealth accreditation are underway.

Other interventions to increase accreditation and claiming rates include the production, publication and distribution of a DOTS Package Manual (PhilHealth with NTP support) and the dissemination of strategies utilised in areas with high proportion of PhilHealth accredited facilities and high claim rates. Local governments have been recommended to establish systems to allow accredited facilities to benefit directly from the revenue derived from PhilHealth claims and the reimbursed allocation will be revised aiming to directly incentivise claims from DOTS units and referring physicians. There are also talks to extend the programme to cover MDR-TB management at accredited facilities.

In order to increase DOTS coverage, NTP and PhilCAT are advocating that all diagnosed TB cases (and their dependents) should be automatically enrolled as PhilHealth members. In addition, incentives and enablers for patients to submit claims once they are members are being discussed, including providing a subsidy to address financial burden for other expenses such as transportation costs, non-TB medications or other diagnostic tests, special services such as dedicated hour or lane during consultation and rewards packages after completion of treatment.

The Mexico experience

Mexico is divided into 32 Federal entities or decentralized states and 2,435 municipalities. The population is 106.7 million inhabitants with a density of population of 53 inhabitants per square Km with large variations in urban areas (National Institute of Geography and Informatics [NIGI] 2008). TB in Mexico is still a public health problem. According to WHO estimates, there were 21,283 new TB cases (11,604 SS+ cases) and 2,552 people died of TB in 2007.⁹

The Government run National Health System is decentralised with a Federal Executive at the MOH, and a Local Secretariat of Health in every state. Mexico fosters three parallel unequal health care systems, NHIS cover approximately 47.7% of the national population (around 50 million insured gainfully employed); the Health Secretariat (SSA), a public assistance system from the MOH that covers 43% (approximately 40 million uninsured poor); and the private sector covering about 10% of Mexicans whose health-care funding is mainly met through private insurance carriers and a broad variety of private providers.¹⁵ In terms of health infrastructure, 86.8% of health units correspond to the Public Sector and 13.2% correspond to private institutions.

These parallel systems have led to a marked institutional stratification, an impressive financial differentiation between the social security institutions and other public institutions, duplication of coverage of some uninsured population and the existence of population groups that have no coverage.¹⁵

The National TB Programme The NTP in Mexico is part of the National Center for Epidemiological Surveillance of the Secretary of Health Prevention and Promotion institutionalized at the MOH. The NTP has a central level team at the Federal Executive in the MOH and teams in each of the 32 States, as well as at district (District coordinators) and local levels all over the country. Local teams (TB district Coordinator and DOTS district Nurse) are responsible for managing and overseeing the implementation of TB control in health care units (primary level and Hospitals) in each of the 245 Health Districts.

The National Health Insurance System Social Security organizations play a key role in Mexico's Health System; the Mexican Institute of Social Security (MISS) covers over 37% of the population and the Institute of Social Security for Government Workers (ISSTE) covers around 5.7%; other small NHIS cover an additional 4% of the population. The MISS has a different organizational structure than the MOH, the Public Health Coordinator (responsible for TB services) sits under the Public Health Unit under the Directorate of Medical Assistance. The central office of the MISS Public Health programme is staffed by a Public Health coordinator and two Public Health nurses (none specific to TB services); the MISS is organized in each state through a Local Delegation; three states have two Delegations, the State of Mexico (East and West), Veracruz (North and South) and the Federal District (North and South), making a total of 35 Delegations in the country, different to the organization of the MOH Health Districts.

NTP-NHIS Collaboration.- According to the General Health Law (February 7, 1984), the Federal Executive, by means of the MOH, has a normative function enacted through the Medical Official Standards of Health (MOSH). These standards represent the general health law and apply to all health care providers (including NHIS and the private sector) in all federal states. Health standards, normative documents and guidelines are produced by the MOH in collaboration with technical experts from MISS and ISSTE, facilitating dissemination and implementation throughout the health economy. More specific guidelines and documents on the management of TB, MDR-TB and TB laboratory procedures have been produced by the NTP with the support and involvement of academics and technical experts from NHIS.

In 2008, there were 15,035 new TB SS+ cases diagnosed nationwide, 9,784 (65%) were reported by MOH and 3,438 (23%) by MISS, while the remaining 12% were reported by other public and private institutions. Similarly, there were 617,723 SS tests for diagnosis, 8,898 (less than 1.5%) were ordered by MISS services. The MOH contributes with 72% of MDR-TB patients waiting for treatment with second line drugs whereas 21% are MISS patients, and the rest correspond to other institutions.

Approximately 70% of TB patients at MOH facilities receive DOTS at health facilities and an additional 20% receive DOTS through a third party (relative or health assistant in the community); only 10% receive weekly unsupervised treatment with fixed dose combination. In contrast, less than 20% of TB patients at MISS receive DOTS, mainly administered by a nurse; in spite of awareness of the national and international standards and of the national norm, the majority of treatment facilities of MISS argue that patients do not present daily for DOTS administration and the treatment is done unsupervised. This is evidenced in the better treatment outcomes observed in MOH facilities (treatment failures, default and death rates are higher in MOH facilities due in part to better quality of data and differences in the case load (characteristics of patients), with poorer patients more likely to attend MOH facilities.

Table Treatment outcomes for SS+ cases in 2008

Treatment outcome	MOH facilities (N=8,158)	MISS (N=826)
Cured	81.6	77.3
Treatment completed	2.9	5.8
Failure	1.2	0.8
Died	6.4	5.4
Default	5.5	4.6
Transfer out	1.4	1.6
Not included in cohort	1.0	4.4

Patients attending MISS services who are SS+ and employed are allowed sick leave until the sputum smear becomes negative, however many patients prefer not to report their TB diagnosis to their employer for fear of stigma and of losing their job.

Despite the fact that the MOH and MISS have separate structures and organizational charts, and there are two parallel although dissimilar TB control systems, the NTP has a legally recognised normative role. The NTP collaborates with TB experts from MISS and ISSTE in elaborating as TB/HIV guidelines, TB in children, MDR-TB guidelines and the Mexican Official Standards in Health (MOSH), as well as guidelines for community action activities for nursing staff and guides for health service facilities. Some collaborative activities include co-participation in planning and delivering annual seminars and workshops to update health professionals from both NTP and NHIS in different areas and to build a chain of service suppliers located in key positions within each of the 245 Health Districts in the country; the participation on the development of regulatory and technical documents and guidelines for TB detection and control such as the management of TB/HIV, TB in children, MDR-TB, guidelines for community action activities for nursing staff and the production of the Mexican Official Standards in Health (MOSH).

An important area of collaboration is in the development of an internet based National IT Surveillance system (Unique National Platform for Epidemiological Surveillance System), this health information system was developed involving both MOH and NHIS experts. The system allows rapid access to reliable information and standardized indicators and has dramatically improved the quality of reporting by NHIS and MOH facilities and assisted with coordination of planning and monitoring and evaluation activities. Similarly, the gradual strengthening of the MOH laboratory network has supported collaboration with MISS ensuring adequate access to SS microscopy for NHIS patients; similarly, all cultures and DST for both MOH and NHIS are performed at the State Laboratory of Public Health (SLPH).

Although NHIS have participated in the development of the regulatory and technical documents their capacity to implement the guidelines and Standard Operating Procedures (SOPs) on TB control is limited due to the lack of staff at central level. In spite of good technical knowledge and awareness of the importance of strictly supervised short treatment, it has been difficult for NHIS services to implement DOTS as a standard.

The Peru experience

The National TB Programme The National Health Strategy for Prevention and Control of Tuberculosis (ESN-PCT), Peru's NTP, is part of the MOH (MINSA). The TB programme is implemented throughout all the health facilities (urban and rural) of the MOH. The ESN-PCT has a normative role dictating policies and procedures for TB control, ensuring adequate suspect identification, diagnosis and access to free and supervised treatment to all TB patients in the country. These policies and procedures are contained in the Technical Norm for TB Control, this document follows WHO recommendations for the management of TB and MDR-TB and should be followed by all health providers in the country including Social Security Organizations.

The National Health Insurance System The major NHIS in Peru is EsSalud, it evolved as a social security organization for the employed population of Peru as part of the Ministry of Work (MOW); its members are mainly the economically active population and their dependants. There is no reliable information on what proportion of the population has access to insurance coverage, it is estimated that EsSALUD

services cover between 10 to 20% of Peru's population, and in economically active regions coverage could reach 30% (i.e. Callao Administrative District). EsSalud insurance premiums should be paid directly by all employers, however, there is great variation in the uptake of the system and as a result a high proportion of employed population are uninsured. EsSALUD is totally independent of the MOH, it has its own organizational structure, its management systems and budget are derived from the MOW; furthermore, EsSALUD has its own TB control programme running parallel to the NTP. EsSALUD manages approximately 5,000 TB cases and 300 MDR-TB cases per year.

Other Social Security organizations include the Police Health Service (Sanidad de la Policia Nacional del Peru), the Army Health Service (Sanidades de las Fuerzas Armadas), health care posts in Universities, Prison Health Service (INPE), as well as Health Service run by the Church and private institutions. There are a total of 7,653 establishments of the four levels between the MOH and SSIP. Of the total 96.7% are in the MOH. On the other hand, 33% of doctors and nurses work in SSIP.

At MOH, the ratio of doctors and nurses per health facility is 1:4, while at SSIP the ratio is 4:5. The uneven distribution would affect coverage and quality of care at MOH.

NTP-NHI collaboration The ESN-PCT has the normative role, however, the NTP has involved other organizations including academic institutions and specialists from EsSALUD in the technical committee to advise in the development, production and dissemination of the Technical Norm. This collaboration facilitates the agreement, implementation and follow up of the technical norm by all health care providers. There is also a legal framework stipulating that EsSALUD and other services recognize the normative role of the NTP and should follow the MOH norms. However, the legal agreement - Convenio Marco, is global and does not discuss specific diseases or disease control programmes.

Although the policies and procedures for TB control contained in the Technical Norm developed by the NTP, with collaboration from experts from NHIS, apply to all health care providers including EsSALUD, there are important differences in its interpretation and in the capacity of implementing the DOTS strategy in treatment centres run by the MOH and those run by EsSALUD; for example, institutions from MOH continue supervision of DOT twice weekly during the maintenance phase whereas, due to staff shortages at peripheral level, many EsSALUD treatment facilities do not supervise treatment during the maintenance phase. Part of the role of EsSALUD's TB control program is to ensure adequate implementation of the norms established by MOH within EsSALUD facilities. However, the TB programme has considerable staff shortages and lack of capacity for regular supervision, monitoring and evaluation of all EsSALUD facilities.

There are many bureaucratic barriers hindering collaboration between the NTP and NHIS in Peru. Collaborative processes such as shared training and CPD, or shared provision of services including laboratory support, transfer of medicines from one entity to the other are not allowed. EsSALUD health delivery regulations hinder the implementation of the norm including barriers for requesting Human Immunodeficiency Virus (HIV) tests to all TB patients or strict limits on the number of consultations with health professionals allowed per month for EsSALUD affiliated patients. Similarly, one ministry cannot sell or exchange services with the other, hindering any possibility of shared support for patients; furthermore, transfer of funds between the two ministries is not routinely allowed and the process is complex and lengthy. EsSALUD regulations do not permit providing services to uninsured individuals and collaborative agreements between MOH and EsSALUD health facilities are not legally recognised. Due to the lack of coordination, staff shortages

and inadequacies in programming, there are no routine strategic meetings between the NTP and EsSALUD TB control program to secure better support and collaboration.

The 2004 Resolution for the management of MDRTB (incorporated to the technical norm) describes the need to establish an expert committee to assess all MDRTB cases and to approve all second line drugs treatment including those for patients managed by NHIS; currently the committee include health professionals from EsSALUD. However, EsSALUD has its own drug procurement process and budget independent from the MOH; this reduces the possibilities of better collaboration, particularly with reference to SLD procurement and the management of MDR-TB. In spite of this, since SLD are often expensive, in some instances the MOH facilities support EsSALUD health facilities providing SLD for the management of MDR-TB cases; these examples of collaboration are ad hoc and do not allow adequate planning by the NTP.

Although central collaboration is difficult, there are good examples of collaboration and integration of services between MOH and EsSALUD in certain Health Directorates (DISAS) at front-line level resulting in collaborative training and participation on MDR-TB Committees; sharing of medication including SLD and laboratory support from the MOH to EsSALUD facilities. Decentralization has brought some opportunities for better collaboration, particularly in those peripheral administrative regions where NHIS have greater coverage.

POLICY IMPLICATIONS

The primary role of social security organizations in health is to protect affiliated members against catastrophic effects of sickness and to compensate for loss of income due to illness, costs of treatment or inability to work. In many non-industrialised countries HIS cover variable proportions of the population mainly the gainfully employed leaving a high proportion of uninsured poor at risk of the consequences of disease, incapacity and costs of medical treatment. The uninsured have however, many faces and many reasons for being uninsured. Although apparently businesses, federal and state governments are major sources of funding for health care, they are just intermediate sources; ultimately, individuals and families pay all health care costs through out-of-pocket spending, insurance premiums, or government taxes.

Health systems must reduce their reliance on out-of-pocket payments and foster integration of financing mechanisms to promote universal cover with strong income and risk cross-subsidies in the overall health. Beyond sheer financial protection of patients, social health insurance institutions often play key roles in provision of health care services, including TB diagnosis and treatment. Health Insurance organizations have different service delivery models, often services are provided through their own network of health facilities outside the remit of the NTP, consequently, the quality of care is variable and notification of cases is rarely performed. This underscores the importance of close collaboration between NTP and NHIS for ensuring that national guidelines and international standards are met across the health system

Given their particular and sustained relationship with clients, HIS could play an important role in early diagnosis as well as motivating patients to seek and adhere to treatment. Improving collaboration between NTPs and HIS could contribute to increase case detection and notification, and to improve the quality of care. In countries such as Colombia, Egypt and the Philippines, NHIS already notify a

significant proportion of TB cases. Furthermore, experiences in Japan have shown that TB patients managed by NHIS showed higher treatment success and lower default rates. Studies from China¹⁶ have suggested that lack of health insurance coverage is likely to result in longer diagnostic delays for TB patients, in terms of both patients and health systems-related delays; this however has not been the case in countries such as Rwanda or Thailand.

In some non-industrialised countries, population insurance coverage might be low and insured individuals are those gainfully employed and less likely to develop TB; even when a high proportion of the population is covered by NHIS there could be reluctance among insured members to disclose their status when diagnosed with TB. However, NTP and NHIS collaboration can contribute to extending DOTS coverage and improving access to quality TB care to a wider population by improving services in the network of affiliated health care providers.

Development of incentives schemes can greatly facilitate the collaboration between NTPs and NHIS; the experience of The Philippines have shown that establishing a DOTS reimbursement package in combination with a system of certification and accreditation of health facilities is feasible and effective in improving access and ensuring quality TB services. The pioneering work in the higher utilisation of the package by private sector facilities ensures that these facilities are providing high quality TB care in line with NTP guidelines at low or zero direct costs to patients.

RECOMMENDATIONS FOR NTPs

National TB programmes should carefully assess opportunities and barriers for developing collaborative agreements with NHIS, identify the possible roles and responsibilities of NHIS in TB control as well as the population covered by them. Tuberculosis Programmes should assess their capacity to lead the collaborative process of identifying and bringing together all relevant HIS and other partners involved in TB care to form a joint steering group. This steering group, led by the NTP, should facilitate the undertaking of four key steps for engaging HIS in collaboration for TB care and control:

- 1) **Rapid Assessment:** In a given country there could be different HIS providers covering different fractions of the population and with diverse service delivery models; the NTP should take the lead to:
 - a) Assess the capacity of the NTP to lead the NHIS-NTP collaborative process; NTPs often have reduced staff capacity at central level. If possible, identify opportunities for synergies with other central programmes such as HIV/AIDS or Malaria, including the HIS TB programme if this exists, as in the case of Peru. Building synergies with other programmes will reduce staff demands on the NTP;
 - b) Plan and budget start-up operations carefully and secure sufficient funds for expected high start-up costs; start-up costs for the cooperation between NTPs and NHIS can be high due to the need to develop adequate infrastructure, developing clear policies and guidelines, and training and M&E;
 - c) Assess if there are in the country HIS associations, professional or regulatory bodies or umbrella organizations. The existence of umbrella organizations regulating the HIS can offer an opportunity to engage all HIS providers, such as the case of PhilHealth in The Philippines;
 - d) Perform a scoping exercise identifying all the different HIS providers in the country the TB services they offer and the models of service delivery they use.

- 2) **Situational analysis and prioritization:** Identify those HIS with the greatest potential according to population coverage, geographical regions covered, availability of services, network of health facilities and conduct a situational analysis:
- a) Identify HIS coverage in the country, groups of the population with access to Health Insurance coverage; proportion of the population covered and geographical or regional variations. Low population coverage is not always a hindrance to NTP-HIS collaboration since working with HIS could provide access to adequate TB care to sectors of the population or geographical regions (i.e. oil refineries, mines, etc) not easily accessible to NTP staff or MOH services.
 - b) Assess the services provided by HIS with particular emphasis on their network of health facilities and laboratory capacity; identify the key areas where synergies could be built and processes could be strengthened to achieve better TB care and control.
 - c) Identify the HIS current role in TB diagnosis and treatment; document any existing *ad hoc* examples of good collaboration, such as the case of Callao in Peru; evidence of existing collaboration could facilitate engagement of policy makers;
 - d) Countries should be aware that even a health insurance scheme with high general population coverage does not guarantee high coverage and use among TB patients. The examples of Peru and The Philippines show barriers for access of TB patients to HIS, NTPs should do a situation analysis at the start and follow up with careful M&E;
 - e) Assess the regulatory and policy framework of HIS looking for opportunities and barriers for collaboration. The example of the complex regulatory systems of the MOH and the MOW of Peru shows how early identification of these barriers could help address them timely.
- 3) **Establish a National MOH/HIS Coordinating Body:** Identify strategic persons within the MOH, HIS and other ministries/academic institutions or professional associations, as appropriate, and invite them to form part of a National MOH/HIS Coordinating Body for TB control. Some of the key areas of work of the coordinating body should include:
- a) Regulatory function
 - i) Existence and implementation of national norms or regulations determining the normative/regulatory function of the MOH/NTP on TB care and control.
 - ii) Explore existence of regulations from academic institutions, professional bodies/colleges or HIS associations that could support the role of the NTP on ensuring adequate TB care and control and better collaboration.
 - b) Identify and address bureaucratic, legal and organizational barriers that could hinder adequate collaboration between NTP and HIS. This should take place at high level within the MOH and other Ministries and HIS organizations
 - c) Ensure equity in access to adequate TB care:
 - i) Develop and agree a joint action plan to align HIS to national guidelines on TB diagnosis and treatment;
 - ii) Audit HIS management of TB against NTP guidelines and international standards;
 - iii) Agree the quality criteria that should apply for certification and accreditation of HIS and private health facilities in the country; establish a cadre of trained certifiers at regional and provincial/city levels, with decentralized certification and accreditation processes. The certification process in The Philippines is a good example of effective initiatives to ensure adequate TB management.

- d) Incentivise: There needs to be clear incentives both for patients and for institutions to follow the collaboration pathway. Explore different ways of ensuring maintain collaboration between NTP and HIS and adequate follow up of the norms and regulations. Ensure that all key public and private stakeholders are engaged in the development of incentives or health insurance reimbursement models for TB care:
 - i) Economic incentives such as the establishment of the DOTS tariff and the reimbursement process in The Philippines shows this to be effective in ensuring follow up of NTP guidelines by all health service delivery organizations (including the private sector); work with HIS and Academic institutions to assess what package of services for TB care and control should be reimbursed in the country;
 - ii) Ensure the reimbursement process is simple and accessible;
 - iii) Other possible incentives for HIS is the possibility of the NTP to support continuous professional development of HIS staff by involving them in regular training activities and updates, examples such as the Mexico NTP training conferences and update meetings have shown this to be an effective mechanism to engage other health care providers;
 - iv) Collaborative involvement in M&E visits can also work as an incentive to better collaboration;
 - v) Establish adequate communication and information flow between MOH and HIS facilities at peripheral, intermediate and national levels
 - e) Sustainability:
 - i) Ensure adequate case notification and cohort analysis in all facilities;
 - ii) Set joint clear TB control targets for all institutions focusing on case detection and quality of care;
 - iii) Carefully assess the potential incentives and disincentives for both patients and institutions, M&E implementation, and fine tune approaches according to findings;
 - iv) Strengthen participation of all members of the Coordinating Body through quarterly and annual M&E workshops to assess the collaborative processes, analyzing impact on TB indicators and information sharing.
- 4) **Pilot Collaborative models, evaluate and scale up:** Identify existing *ad hoc* examples of collaboration , if they are effective and have taken place on an *ad hoc* basis ensure they are legally recognised and sustainable.
- a) Pilot the collaborative model(s) identified in the agreed action plan and conduct regular monitoring and evaluation visits to HIS institutions collecting information on implementation processes with emphasis on synergies, barriers and threats.
 - b) Evaluate pilots measuring TB control indicators and document interventions, scale up successful pilots and disseminate best practice.

Ultimately, NTPs are responsible for ensuring adequate access to high quality TB management and control services in the country.¹⁷ Along with monitoring and evaluation, the NTP also has a role to support training and supervision activities of NHIS's staff involved in TB control. NTPs are also expected to provide technical support to NHISs along with quality assurance of laboratory services.

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