Development of Technical Guidelines for Health Assessment and Monitoring in the Informal Mining, Transport, and Agricultural Sectors

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ABSTRACT

Objectives. To (1) draft a comprehensive health program relevant to workers in the informal sector; (2) develop specific guidelines for the establishment of appropriate health services for informal workers, including recommended surveillance systems; and (3) formulate a mechanism for the full coverage of health insurance for informal workers integrated through the National Health Insurance system.

Methods. Document reviews, Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), informal surveys were conducted. The various agencies were involved from the study proposal to the final review through consultative meetings.

Results. The health program for the informal sector (IS) is inadequate. Currently, the various health services of the government and its regulatory functions are not integrated to address the needs of the IS.

Conclusion. Hazard identification, evaluation and control with the appropriate IEC campaign aimed at behavioral modification for the informal sector and national health/social insurance service providers are the recommended steps. Tracking, monitoring and surveillance systems need to be established through local government units (LGUs), with the support of the workers' associations/cooperatives.

Key Words: informal sector, health insurance, occupational health

Introduction

Health, as defined by the World Health Organization (WHO), is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. In September 1978, "Health For All 2000" concerted international efforts to improve quality of health and rendering of health services, especially primary care that included occupational safety and health.[1]

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The International Labour Organization (ILO) and the WHO Joint Safety and Health Committee defined occupational safety and health as "the promotion and maintenance of the highest degree of physical, mental and social well-being of all workers in all occupations, the prevention among workers in the employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his/her physiological and psychological equipment. To summarize, it is the adaptation of work to the individual and each individual to his/her job." It is the thrust of the occupational health field to cover the prevention of injuries and illnesses among the workers. In line with this, identification, evaluation, and control of hazards that workers are exposed to are important steps to undertake.

The informal sector, as defined by the Department of Labor and Employment (DOLE), is "that sector consisting of units engaged in the production of goods and services with the preliminary objective of generating employment and incomes to the persons concerned, particularly unincorporated household enterprises that are market and non-market producers of goods as well as market producers of services."[2]

Informal sector workers possess basic human rights. The WHO Preamble to the Constitution defines occupational health as "the enjoyment of the highest attainable standard of health as one of the fundamental rights of every human being…the achievement of any state in the promotion and protection of health."

In the Philippine Constitution, Section 15 – State Policies states that the State shall protect and promote the right to health of the people and instill health consciousness among them. In Section 18, the State affirms labor to be a primary social economic force. It shall protect the rights of workers and promote their welfare. However, since the Occupational Health and Safety Standards are not explicit on the workers in the informal sector, a set of guidelines should be formulated for these workers' protection.

This study aims to (1) draft a comprehensive health program relevant to workers in the informal sector; (2) develop specific guidelines for the establishment of

appropriate health services for informal workers, including recommended surveillance systems; and, (3) formulate a mechanism for the full coverage of health insurance for the informal workers integrated through the National Health Insurance system.

Methods

- *Document review.* Existing programs of the national and local governments were revisited such as those of the Bureau of Rural Workers of the DOLE (BRW-DOLE), Social Security System (SSS), Philippine Health Insurance Corporation (PhilHealth), and the Cooperative Development Authority (CDA), cities of Makati and Marikina. Other public document files were likewise utilized such as RA 7078 (Act Establishing the People's Small-Scale Mining Program), DAO 34 series of 1992 (Rules and Regulations to Implement the People's Small-Scale Mining Program), AO 97-30 (Small-Scale Mine Safety Rules and Regulations), RA 6939 (Act Creating the Cooperative Development Authority), and RA 9165 (Comprehensive Dangerous Drugs Act of 2002).
- *Focus group discussions (FGD).* Groups representing the three major islands of the country were covered, with a total of 89 participants. Table 1 shows the coverage of the study per region, with the specific worker category and the methodologies applied.
- *Key informant interviews (KII).* Interviews with key officials from both government sectors and private agencies were conducted. These included top personnel of the Philippine Social Security System (SSS), PhilHealth, Marikina City, Makati City, and Lugait Municipal Governments, the National Commission of Indigenous People, the Center for Health Development in Region XI and the Federation of Jeepney Operators and Drivers Association of the Philippines (FEJODAP). Official representatives from Itogon and La Trinidad in Benguet, Nabunturan in Compostela, and Bansalan in Davao del Sur were also tapped. Furthermore, informal interviews were conducted with the representatives from CDA, BRW-DOLE, and League of Municipalities of the Philippines (LMP).
- *Consultative meetings.* Round table discussions (RTDs) were held to validate the previous discussions and interviews. The RTDs involved representatives from SSS, DOLE, the Department of Health (DOH), the Bureau of Mines and Geosciences (BMG-DENR), the Department of Interior and Local Government (DILG), the DOH, SSS, PhilHealth, BMG-DENR, WHO, and the Makati City and Marikina City Health Offices.

The drivers included in the project were tricycle, jeepney, taxi, utility van and bus drivers. The workers in the agricultural sector included in this study were farmers and fishermen representing the three regions of the country. The miners included in the study were small-scale miners from Benguet and Mindanao.

Table 1. Study coverage by geographic region, specific worker category, and methodology applied

Region	Informal Sector	Specific Worker Category	Applicable Methodologies Conducted in a Particular City or Municipality	
			Focus Group Discussion	Informal/ Formal Interview
Luzon	Transport	Tricycle drivers	Makati City, Pasay City	Manila, Marikina City, Quezon City
		Jeepney drivers	Makati City	Manila, Marikina City, Pasay City Quezon City
		Taxi drivers		Manila, Makati City, Quezon City Pasay City
		SUV, or FX drivers		Makati City, Manila
		Bus drivers		Quezon City
	Farming	Upland Gardeners, Vegetable and Flower Traders		La Trinidad, Benguet
	Mining	Small-scale mining contractors	Itogon, Benguet	
Visayas	Transport	Tricycle drivers	Bacolod City, Iloilo City, Catarman, Samar	Silay City
		Jeepney drivers	Iloilo City	Bacolod CIty
		Taxi drivers	Iloilo City	Bacolod City
	Farming	Upland farmers		Sipalay, Negros Occidental Catarman, Samar
		Fishermen		Catarman, Samar, Iloilo City
Mindanao	Transport	Tricycle drivers	Lugait, Misamis Oriental	Cagayan de Oro City, Lugait, Misamis Oriental
		Jeepney drivers		Cagayan de Oro City, Lugait, Misamis Oriental
		Taxi drivers		Cagayan de Oro City
	Farming	Upland farmers, Rice Farmers Agricultural cooperative representatives	Bansalan, Davao del Sur Lugait, Misamis Oriental	Lugait, Misamis Oriental
	Mining	Gold miners, operators of ore ballmiling plants, workers in ballmilling plants, miners' cooperative representatives	Nabunturan, Compostela Valley	

Results and Discussion

Transport workers (drivers). Many aspects of a driver's life contribute to poor health. Exposure to environmental pollutants is common, such as carbon monoxide, heavy metals from smoke belchers, and dust.[3] Drivers, especially those using open vehicles such as tricycles and jeepneys, are also exposed to various factors such as changes in climate. They also have long working hours. These predispose them to health problems especially respiratory tract infections.

Ergonomic factors refer to the psychosocial aspects of the exposure of the drivers in line with their jobs. These include (1) erratic and long working hours;[4] (2) stress arising from simple commotion to high-level confrontations between them and their passengers, and apprehension by police and traffic enforcers; and, (3) prolonged sitting especially among taxi drivers, and awkward position especially among tricycle and jeepney drivers.

Four out of nine interviewees reported experiencing psychosocial stress from robberies that usually occur in the month of December, especially among taxi drivers. The victims of robberies in jeepneys, on the other hand, are the passengers. All the same, these drivers are vulnerable to the psychological effects.

The most common health concerns of drivers are: (1) respiratory tract infections; (2) musculoskeletal conditions; and (3) acid-related gastrointestinal disorders. Respiratory tract infections are more commonly experienced by jeepney drivers and tricycle drivers, presumably due to their direct exposure to environmental pollutants and lack of protection to alternate episodes of rain and heat during inclement weather. A considerable number of tricycle drivers reported frequent musculoskeletal complaints presumably because of the driving posture, and body fluid loss secondary to direct sun exposure. Drivers believe in "pasma," a perceived health condition manifesting as sweaty hands and muscle tremors believed to result from taking a bath after a day's work. Acid-related gastrointestinal disorders are relatively more common among bus drivers than the rest of the informal workers interviewed, presumably due to varied hours of meal breaks dictated by the varying volume of passengers throughout any given day, on top of missing some meals.

There were 15,086 vehicular accidents recorded in 2006; 80.86% were caused by drivers' errors such as over-speeding, inattention due to use of cellphones while driving, and overloading. Ten percent (10%) of the cases were due to drunk driving.[5]

It is evident that no protective equipment of any type is being used by transport workers. When arm sleeves are worn, they are of the improvised type, usually made of ordinary cloth. This is generally observed among tricycle and pedicab drivers who are exposed to the heat of the sun.

No health program is designed for this group of workers. Only one out of six tricycle/pedicab driver-groups are members of drivers and operators associations. Whenever meetings by these associations are held, the sessions are spent discussing issues pertaining to operations rather than health concerns. In a randomized interview of 56 drivers, only one articulated considerable interest in personal and environmental health.

Bad lifestyle habits are practiced by close to 90% of the drivers. Jeepney drivers believe that alcoholic beverages help them relax at the end of their work day. Smoking has become a part of every driver's life as a way to pass long waiting periods and optional rest breaks.

Regarding PhilHealth insurance coverage, only four of those interviewed were voluntary members of the program. Reasons given by drivers for non-membership include: (1) inadequate funds; and, (2) indifference. Most of them claimed not to have time to enroll or lack the knowledge to go about the process of enlisting and/or paying premiums. Lack of awareness is a common reason for their non-membership to SSS and PhilHealth.

When advised to have a program administrator for their membership to these programs, close to 100% of those interviewed welcomed the idea. Approximately 10% of those interviewed who are enrolled in these programs were previously employed in private companies, and continue their membership as voluntary members.

During investigations to validate the claims of drivers who say they have insufficient funds for SSS and PhilHealth membership, it was found that the average ranges of daily earnings of tricyle/pedicab, jeepney, and taxi drivers are P100-300, P100-500, and P300-600, respectively.

The scenario is different among bus drivers. Because there is premium sharing for both SSS and PhilHealth, bus drivers are SSS and PhilHealth members.

All of the drivers interviewed were familiar with PhilHealth in-patient benefits and SSS loan privileges and retirement benefits. However, none of them were aware of the PhilHealth out-patient and SSS sickness and maternity benefit programs.

In case of illness, all of the interviewees stated that they self-medicate with over-the-counter medicines. All interviewed were aware of the services of their respective health centers; however, only an estimated 10-20% of the respondents availed of these services. No reason was elicited.

Agricultural workers. As of October 2007, there were 6.315 million farmers, including foresters and fishermen in the Philippines, about 14% of whom were females.[6]

Farmers from Benguet and Mindanao said that for their families' health needs, they seek the services of the barangay and municipal health centers. However, they claimed to be unable to afford to buy medicine or spend on laboratory tests which are not available at these health centers.

As one of the main sources of livelihood, farming in Catarman, Samar, consists of alternate copra and fishing. About 90% of the agricultural workers interviewed are

engaged in small-scale fishing since not much capital is needed for fishing equipment. Earnings in small-scale fishing average P200 per day per fisherman, compared with P100,000 in a single fishing operation with groups of fishermen in large-scale models. The information is relevant in line with the health and medical needs and the SSS and PhilHealth non-membership of the people in Samar as they attribute the inadequacy of healthcare services to their economic status. Another reason that was cited for non-membership in SSS is the distance of the head office where membership is processed.

About 80-85% of those interviewed were smokers and alcohol drinkers.

The average number of family members among Samareños is five to six. About 90% of the mothers are housewives. They rely on the municipal health center for minor health problems. Most rely on herbal medicines and over-the-counter drugs for their ailments. In extreme medical emergencies such as cerebrovascular accidents (stroke) or myocardial infarction (heart attack), there were three patients cited in the 3-year record who had to be airlifted to Manila through the courtesy of the office of the municipal mayor.

In the Municipality of Tapas in the province of Iloilo and in Kabankalan in Negros, PhilHealth benefits come from the LGUs. The major problem encountered, however, is the lack of documents to establish relationships between family members, since about 80% of these people do not have birth certificates. A remedial measure to address this problem is certification from the LGU itself.

In these areas of Visayas, family planning programs are availed through non-government agencies and LGUs. The size of the family used to be more than 7 per household; in the past decade, it has decreased to 5-6.

In Lugait, Misamis Oriental, agriculture is the major source of livelihood for 60-70% of the population. The LGU provides a central health center, with seven satellite health centers in eight barangays. "Botica ng barangay" – a DOH program, the community with access to affordable medicines - was also established a few years ago in each barangay. Other health programs that involve the government and private agencies include a nutrition program, and a family planning program. However, the participants were not aware of these programs as revealed during the FGD.

In general, respiratory infections, dizziness, and headache are very common among the farmers and are attributed to inhalation of chemicals. Hyperacidity and ulcers were also reported and attributed to working early with empty stomach. Biological hazards include parasites such as schistosoma and leptospira, common in areas where the farmers wade in waters. Ergonomic problems are likewise experienced, such as general muscle and back pain, fatigue due to the strenuous nature of their work. Physical injuries are also common. Like the drivers, "pasma" is a common belief of farmers in all regions of the country.

Due to economic reasons and for convenience, many farmers do not wear appropriate personal protective equipment (PPE) such as masks, gloves and boots. For protection, they only wear long-sleeved shirts and wide-brimmed hats.

Fishermen, especially those who go continuous fishing for weeks or months and are subjected to prolonged sun exposure are predisposed to various skin disorders. Risks include injury from marine life, possible interruption of the diving fishermen's air supply resulting in emergency ascent and decompression sickness.

Miners. Small-scale miners in Benguet, called "kamote miners," work in mining areas which have already been mined and abandoned by large-scale miners. In Mindanao, the small-scale miners called "abanteros" work in the processing of ores. The small-scale miners who participated in the study worked for hire on a contractual basis and were not covered by any health insurance.

Small-scale miners face constantly changing worksite circumstances throughout the duration of their work. Due to the nature of the job, miners work without natural light or ventilation.[7]

As of December 2004, the inventory of small-scale mining and quarrying in the Philippines showed that there were 13,907 workers directly involved in this industry, 85% of whom were engaged in gold mining operations, 13% in other metallic and non-metallic and the remaining 2%, in sand and gravel operations.[8] In 2003-2008, there were a total of 34 accidents involving 99 small scale workers in the mine sites; 77% were fatal. All of these events, except in one, occurred in gold mine sites.[8] Table 2 shows the 2003-2008 summary of recorded accidents involving small-scale miners.

Common health problems include dizziness, body pains, respiratory infections, and contact dermatitis. These may be attributed to the handling of chemicals and lack of oxygen inside tunnels. Potential health and safety issues vary with the location, size, and type of work performed in a worksite camp. Not all miners use PPEs.

Health and other social services for the informal sector

Health services. The informal sector is considered part of the general population in terms of access to health services. Due to exposure to a more hazardous environment, special occupational health services are necessary. Most, if not all, health centers have limited skilled manpower, medicine, laboratory tests and other resources to provide for the occupational health requirements of the informal sector. Furthermore, delivery of health services is highly dependent on the plans and programs of LGUs.

In the City of Marikina, health services excluding laboratory services are free. There are no specific health

service programs for the informal sector as these workers are considered part of the general public. The use of a "Health Passport" is encouraged; it covers the entire family up to the second child, serving as the logbook for consultation of the entire family. The City Health Office networks with the nearest government medical center for the healthcare service needs, beyond primary care, of the constituents. Through the LGU, some 2,000 families are sponsored for PhilHealth membership.

Table 2. Summary of recorded accidents in small scale mining from 2003-2008

Region	Number of Accidents		Number of Workers Involved					
			Non-fatal		Fatal		Total	
	No.	%	No.	%	No.	%	No.	%
CAR	4	11.8	0	0	8	10.5	8	8.1
II	1	2.9	0	0	1	1.3	1	1
VII	1	2.9	0	0	1	1.3	1	1
VIII*	1	2.9	0	0	2	2.6	2	2
IX	1	2.9	0	0	1	1.3	1	1
X	2	5.9	2	8.7	5	6.6	7	7.1
XI	18	52.9	10	43.5	20	26.3	30	30.3
XII	4	11.8	10	43.5	34	44.7	44	44.4
XIII	2	5.9	1	4.3	4	5.3	5	5.1
Total	34	100	23	23.2	76	76.8	99	1000

** The accident in Region VIII occurred in a rock phosphate mine, the rest occurred in gold mines*

In general, there is a very low level of knowledge and skills in Occupational Health and Safety among the health personnel in all the LGU health services.

Health insurance coverage under PhilHealth. About 85% of the study participants had PhilHealth cards that were distributed in 2005 and thereafter as part of the political strategy of LGU executives. However, these were not renewed after the one-year expiry. Reasons for non-renewal include: (1) non-awareness of the need for renewal; and (2) inability to afford the monthly premium payment. Participants claimed that they used the PhilHealth benefits through the "palakasan" (patronage) system. Furthermore, many of the participants were unaware of the Individual Paying Program (IPP) and the Kalusugang Sigurado at Abot-kaya sa PhilHealth Insurance (KASAPI) program.

The IPP allows the member to avail of PhilHealth benefits as long as the member has complied with the following conditions: (1) payment of at least 3 monthly premiums within the last 6 months prior to confinement; and (2) confinement in an accredited hospital for at least 24 hours due to an illness requiring hospitalization. Outpatient care and special packages are also available for members.

Implemented in 2006, the KASAPI program that requires an annual premium of P1,200 is targeted at informal sector workers. Discounts are given to members of organized groups with 1,000 members and above, with 70% of its members enrolled in the IPP. As of 2008, there are 17 organized groups with MOAs with PhilHealth, with only 9 able to meet the minimum required number of enrollees.[9]

Social Security System. Informal sector workers are generally considered self-employed members of the SSS: workers with an income of at least P1,000 a month who are not over 60 years old. Close to 90% of the study participants interviewed had not availed of the self-employed membership. Menawhile, only about 15-20% of those in the informal sector fall under the category of "separated members." Under the SSS Rule, the effectivity of voluntary coverage of a separate member is on the month the person resumes payment of contribution.

Self-employed and voluntary members get the same benefits as covered employees, except those benefits under the Employee Compensation (EC) Program. SSS benefits include sickness, maternity, disability, retirement, death and even funeral benefits. SSS also provides short-term loan programs.[10]

The role of cooperatives and other organized support groups

Membership in cooperatives and workers' associations can facilitate health insurance coverage of the informal sector. Table 3 shows the number of cooperatives for the three categories of workers in the informal sector. It is important to note that some workers from this sector are also members of multi-purpose cooperatives in the country.

Table 3. Total number of cooperatives per informal sector

Informal Sector Under Study	Total Number of Cooperatives
Agricultural	3, 018
Mining	76
Transport	340

Some agricultural and mining workers mentioned that their cooperatives rarely assist them in their health financial needs. Cooperatives' representatives claimed that their funds are not sufficient for the health insurance needs of their members.

While an estimated 95% of drivers are members of the various jeepney operators and drivers association, they do not enjoy social and health insurance coverage, except the jeepney driver of one Manila route in which there is a regular SSS remittance.

Roles of the National and Local Agencies in the Informal Sector

Department of Environmental and Natural Resources (DENR). The passing of RA 7076 (People's Small-Scale Mining Law) in 1991 was principally intended to generate more employment in small-scale mining and to bring about equitable sharing of the wealth and natural resources of the country. The program has the following features/functions,

among others: (1) to encourage the formation of cooperatives; (2) to generate ancillary livelihood activities; and, (3) to regulate the small-scale mining industry to encourage growth and productivity.

Department of Interior and Local Government (DILG). Mandated to supervise LGUs and the provision of public safety, the DILG issues memorandum circulars and guidelines pertaining to national programs, laws and policies on LGUs. For example, the DILG issued a memorandum circular in November 2007 to the LGUs on LGU ordinances/resolutions imposing a moratorium on large-scale mining activities and a DENR memorandum circular on Clarificatory Guidelines in the implementation of Small Scale Mining Laws. It also issued a memorandum circular in July 2007 on the accreditation of people's organizations, non-governmental organizations and similar political groups, and the selection of representatives to local special bodies.

Department of Transportation and Communications (DOTC). At present, the DOTC does not have specific plans and programs directed towards transport workers in the informal sector. However, the DOTC imposes mandatory accident insurance for all drivers as a pre-requisite for vehicle registration. Known as Third Party Liability Insurance, it is national in scope and addresses those involved in vehicular accidents that may result in incapacity or death.

Department of Labor and Employment (DOLE). The BRW under the DOLE has a specific program for specific sectors who have difficulties in accessing formal employment, including rural workers and informal sector (IS) workers. The IS-WORKTreps program or Unlad Kabuhayan Program Laban sa Kahirapan has four types of service that help the improvement of economic and social well-being of the informal sector workers. These are: (1) Training Services which also cover occupational safety health; (2) Business Advisory Services which focus on facilitating access to credit, market and technology; (3) Social Protection Services which facilitate their access to the government's social protection schemes such as SSS and PhilHealth; and, (4) Networking Services which are concerned with the building of business alliances and representation in government and private sector decision-making undertakings. In the long term, the Worktrep Program is to be implemented in all cities and municipalities.

Department of Agriculture (DA). The thrust of the DA is to uplift the economic and social status of agricultural workers through the provision of skills training in productivity, entrepreneurship, and technology at the LGU level. The Agricultural and Training Institute (ATI) is its extension and training arm. As per Administrative Order No. 287 issued on July 2008, it performs its mandate as apex agency for a unified and efficient agriculture and fisheries industry in the country with its existing programs.

The Fertilizer and Pesticide Authority (FPA), on the other hand, is the regulatory arm of the DA in the implementation of the rules and regulations of PD 1144 of 1977, pertaining to the importation, manufacture, formulation, repacking, distribution, sale, storage, and use of pesticides and other agricultural chemicals in the interest of improving agricultural production, protecting public health and enhancing environmental quality.

Department of Health (DOH). With the devolution of national public health services to local government units in 1992, DOH remains the policy-making body for public health and provider of technical assistance to the LGUs. Health programs are implemented by the LGUs, regardless of the occupations of the people in the respective locality.

Main objectives and strategies of the project

The national government has the crucial role in reducing poverty, increasing the access of workers to health and other social services. This study reveals that the informal sector is considered part of the general population in terms of access to health services and health insurance coverage. Thus, the health program for these workers should be embodied in the public health system. Moreover, special occupational health services should be made available at the local level, thereby strengthening the resources of local health offices to adequately address these concerns. Thus, the LGU shall be responsible for facilitating access to health and other social services, implementing the comprehensive occupational health program and the specific health guidelines for the informal sector.

Figure 1 shows the operational concept of the development of policies, the implementation of a comprehensive health and safety program, and the mechanism for coverage of health insurance for the informal sector. The DOH and DOLE shall continue to be the policy-making bodies relevant to the protection and promotion of health, while the MGB-DENR, the LTO-DOTC, and DA shall provide specific technical assistance to the DOH and DOLE in the development and planning of the implementation strategy of these occupational health guidelines. The DILG, on the other hand, shall serve as the oversight body for the LGUs, particularly in the implementation of the occupational health program, and as such shall be responsible for monitoring the compliance of LGUs to DILG administrative orders. The DILG and DOH can forge a memorandum of agreement on the monitoring of compliance by LGUs. The SSS and PhilHealth shall continue to have a direct link with the LGUs and the informal sector in expanding health insurance coverage and more extensive information campaign on the benefits of enrollment or membership, either through cooperatives or associations or

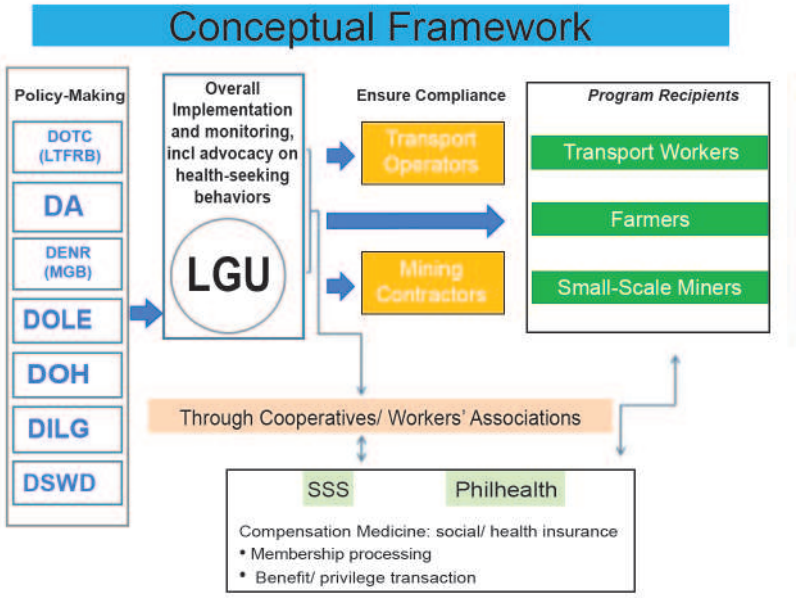

Figure 1. Conceptual framework: roles and responsibilities of government agencies, workers' organizations and associations.

through voluntary membership to SSS and through the individual paying program of PhilHealth.

A. Comprehensive health program relevant to workers in the informal sector

1. *Comprehensive medical evaluation.* Each worker, whether driver, farmer, or miner, will have to undergo a general physical examination that shall also include all body systems review and laboratory/ancillary procedures. This is aimed at ensuring fitness for work that serves as baseline information for health maintenance. Transfer and special medical evaluation shall also be conducted, as necessary. After a year of placement, each worker must undergo annual medical evaluation. When separation from work happens, exit examination shall be performed.
2. *Hazard evaluation and control.* Routine to any occupational health practice in establishing the correlation, if any, between a worker's condition and his/her job is to conduct a thorough evaluation of the working environment. Engineering and administrative control measures and the use of PPEs shall likewise be implemented;
3. *Health promotion/ healthy lifestyle program.* A major contributing factor in disease etiology is the individual worker's lifestyle and habits. Thus, programs that need to be implemented are: (1) nutrition and physical fitness; (2) smoking cessation; and (3) moderation of alcohol consumption;
4. *Psychosocial support and counseling services.* Since informal sector workers are subjected to a variety of psychological stressors, a comprehensive system of counseling and post-traumatic stress debriefing services are recommended.
5. Other DOH/ DOLE Programs applicable for the informal sector which include (1) Anti-TB program; (2) Comprehensive Drugs Act; (3) Family Planning Program.
6. *Training.* The informal sector should be given training on the health and safety aspects of their respective professions, as discussed in the proposed guidelines. It is also important that leaders and administrators be trained in courses on occupational health and safety.
7. *First aid and emergency treatment.* First aid stations should be provided with members trained for basic first aid. Networks including hospitals and health centers for emergency treatment should be established as well.

B. Specific guidelines for the establishment of appropriate health services for workers in the informal sector including recommended surveillance systems

1. *Appropriate networking with existing government agencies responsible for the various workers' benefits and privileges.* As part of securing licenses for operation, the trade or industry should be registered with the assistance of LGUs through associations and cooperatives. An important requirement is compliance to the health programs, as previously discussed. A comprehensive information dissemination campaign to include health

and safety and workers' benefits and privileges should be conducted. Health services dedicated to the informal sector should be established. It is likewise recommended that the services of Government Financial Institutions (GFIs) that offer related services to the informal sector such as the Land Bank of the Philippines and the Development Bank of the Philippines be explored.

2. *Utilization of the LGUs.* LGUs should establish a division to specifically cater to the needs of the informal sector. Implementation of the various financing options such as subsidy or salary deduction may be explored, depending on the needs and capabilities of the cities and municipalities. Sustainability can be achieved if LGUs issue local permits and licences only to compliant sectors. The progress and development of the program should be tracked, monitored and evaluated.
3. *Strengthening associations/formation of cooperatives.* Drivers' and operators' associations and cooperatives for the informal sector should be established through the CDA. This shall be aimed at ensuring the effective administration of SSS and PhilHealth coverage through a dedicated core group who will perform the organizational and administrative work, and working committees that will include membership, finance, executive, and the secretariat.

C. Mechanism for the full coverage of health and social insurance integrated through the National Health Insurance System, and the Social Security System. The most rational approaches to full health insurance coverage of the informal sector are: (1) membership to the IPP and the KASAPI Program of PhilHealth for medical and hospitalization benefits as well as access to outpatient care and special packages, and (2) self-employed membership to SSS for medical, retirement and burial benefits. After identifying workers' reasons for not availing of existing government health and social insurance programs, we recommend: (1) establishing fund sharing through the operator-driver associations and cooperatives; (2) conducting a comprehensive information-education-communication campaign on the roles of LGUs and the benefits of SSS and PhilHealth; and, (3) establishing more satellite centers to provide recipients of government benefits with services, especially in remote areas.

Summary and Recommendations

The health and safety of the informal sector are critical considerations, not only for the workers themselves but also for the general public. This study is comprehensive in scope, covering the three informal sector categories: transport workers, agricultural workers and small-scale miners.

A sound, holistic and integrated program to address the health of workers in the informal sector, as well as the status of the environment, should be implemented. Safeguarding the health and safety of the informal sector must be a joint responsibility of the workers themselves, their respective associations/organizations and the government at all levels. The LGU should be the main government unit for the implementation and monitoring of all programs. The LGU shall also ensure the sustainability of the program, in partnership with the SSS and the PhilHealth.

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