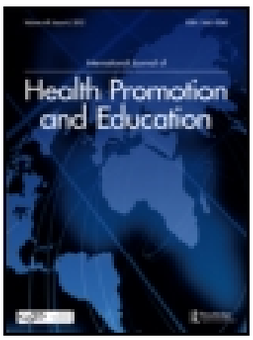

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A local-level evaluation of capacity for health promotion in Lima, Peru: Comas and Callao health center areas utilizing the WHO health promotion capacity profile

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ABSTRACT

Capacity mapping for health promotion in Peru is said to have been done in 2001 and 2010 by the Pan American Health Organization/World Health Organization through a regional exercise, but no specific report is available to examine in detail. This paper reviews the role of what has come to be termed 'capacity-mapping' in health promotion in three health center service areas in Peru that are part of a community-based health promotion project partially financed by KOICA. One international capacity mapping tool was used to evaluate the situation of the mentioned services areas, specifically the Health Promotion Capacity Profile, developed by WHO in 2004. Local-level capacity for health promotion was analyzed, and limitations are highlighted. The results of the local-level exercise are discussed and suggestions are made on how to improve the identified components in Lima, Peru that are the most lacking; primarily, the areas of partnerships among public, nongovernmental and private organizations, professional development, and health promotion financing. Community-based interventions such as local health promotion programmes should be encouraged as they foster partnerships and support the strengthening of health promotion education for local staff. In addition, the introduction of an earmarked tobacco tax system could be a solution to the considerable financing issue that also affects local health centers, so that the development of effective and sustainable health promotion programmes can be attained.

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Introduction

Capacity has different meanings in different contexts. 'In simple terms, capacity refers to those qualities or characteristics that enable people to do something', (McLean, Feather, and Butler-Jones 2005) or 'the ability to carry out stated objectives' (Goodman et al. 1998). In the field of health, capacity can be seen from a variety of perspectives: a patient's mental ability to make decisions regarding their clinical condition, the skill of a health care provider

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to identify and manage diseases, or the capacity of a public health system to better respond to its health and health systems challenges. In the field of public health and health promotion, the concept of capacity building has gained much attention during the last decade. This approach, as defined by Hawe et al., focuses on the development of sustainable skills, organizational structures, and resources and commitments on health improvement in health and other sectors to prolong and multiply health gains many times over (Hawe et al. 1997). Thus, in accordance with this concept, capacity building for health promotion not only looks at individual competencies but also touches on the characteristics of the health system as a whole, including the intersectoral collaboration and partner commitment required for effective and sustainable health promotion.

Aluttis et al. argues that 'one of the key principles of capacity building is that it should acknowledge pre-existing capacities', and that 'any attempt to build public health capacity thus requires a prior analysis to identify which capacities already exist, how well they are developed, and how well they link together as a system'. This process is commonly referred to as capacity mapping (Aluttis et al. 2014). Mapping the conditions of the existing capacity for health promotion allows the identification of gaps and limitations that require a great deal of political decision and enforcement, increased participation, and evidence-based innovation to secure improvement.

In order to conceptualize and assess capacities for health promotion, various countries around the world have been carrying out initiatives for more than 20 years in European countries, North America, Korea, Japan, and Australia (Mittelmark et al. 2006). It is important to note that all these initiatives have developed their own conceptual framework and means of operation, based on specific local contexts and contents. Capacity at the country level has also been mapped across regions, and into specific public health fields such as noncommunicable diseases (NCD), as part of the implementation of a global strategy of the World Health Organization (WHO) in 2001 (Alwan, Maclean, and World Health Organization 2001). Specific health promotion capacity mapping in Peru is said to have been done for the first time through an exercise conducted by the Pan American Health Organization/World Health Organization (PAHO/WHO) in 2001, with a follow-up in 2010, though there is no a specific report available to examine in detail for both cases (PAHO/WHO 2011). The referred report further explains that, as part of a worldwide WHO initiative, the PAHO conducted a Regional survey in the Americas to identify and assess health promotion organizational structures, competencies, and resources in various sectors at national, regional, and local levels, as well as those of the Ministries of Health of its Member States. In response to the initiative, the report mentions that 27 Member States prepared reports on health promotion in their countries using guidelines provided by the PAHO. The WHO health promotion capacity-mapping tool used in this study offers a broad analysis of components that constitute the capacity for health promotion based on core areas crossing different levels.

The framework of health promotion in Peru has the National Health Promotion Directorate created in 2002 (DGPS for its acronym in Spanish) and under the Ministry of Health (MOH) as the Direction responsible of health promotion policies. Peru does not have a 'Health Promotion Act' but the DGPS published in 2005 the 'Health Promotion Policy guidelines' via Ministerial Resolution (MINSA 2005a), as the official document endorsed on this subject, and in 2006, the 'Health Promotion Approach Model in Peru', based on the aforesaid as the white paper to be consulted by all MOH affiliated institutions throughout

the country. Five general and five strategic guidelines were approved for incorporation in plans, programmes, and projects developing health promotion efforts, but no further document in reference to this exists. The white paper did prioritize areas for which three programmes endorsed by Ministerial Resolutions were created, in detail: (1) Health Promotion Programme in the Schools, (2) Programme of Healthy Municipalities and Communities, (3) Programme of Healthy Families and Homes (MINSA 2005b, 2005c, 2006). Unfortunately, there is little evidence available of sustained actions of the programmes itself up to date. Based only on Sanitary Directives, few components of some of the aforementioned thematic areas have developed under new isolated frameworks (MINSA 2015a; MINEDU 2015).

The purpose of this paper is to review the role of what has come to be termed 'capacity-mapping' in health promotion in three health center service areas in Lima, Peru. We looked to highlight the limitations of their capacity for health promotion, in order to suggest ways to improve the most lacking components that affect the implementation of effective and sustainable health promotion interventions at the community level.

The three health center service areas are part of a community-based health promotion project, the 'Peru North Lima and Callao Health Promotion Programme', currently developed under an agreement between the Ministry of Health (MOH) of Peru and the Korea International Cooperation Agency (KOICA). The Peru North Lima and Callao Health Promotion Programme aims to promote health and prevent diseases in the residents of the intervention areas through the implementation of health promotion projects on hypertension, maternal, and school health, based on a local analysis. The programme is focused on action in the determinants of health, community participation, and advocacy for health promotion. The areas considered for the present study comprise those assigned to three health centers in the Lima Metropolitan Area (Region of Lima and Callao): The 'Laura Rodriguez Health Center' located in the district of Comas in Lima, the 'Bellavista Health Center' located in the district of Bellavista, and the 'Pachacutec Health Center' situated in the district of Ventanilla; the last two are part of the Callao region. The study also introduces general information on the health indices and health behaviors of the three health center service areas. The rationale of conducting a capacity mapping exercise is that an understanding of what constitutes capacity for health promotion within and across the health promotion programme areas, would allow for weighing the findings into the planning of the programme operations. For this exercise, direct consultation was undertaken in regional authorities managing activities in the three health centers in order to explain the rationale of the exercise and determine the potential interviewees and their availability. The study was conducted with their approval.

Methods

A literature review was completed in order to identify the general sociodemographic, health situation and related behaviors data from Peru as a whole as well as that from the three study areas. Information on population size by district, population assigned to each health center, and number of health care facilities at the first level of care per district was retrieved from reports prepared in 2014 by the Health Promotion Programme in North Lima and Callao local staff at each health center (Albitres-Bazan et al. 2015; Ancieta-Cano et al. 2015; Escalante Tito et al. 2015). National population data was obtained from the Peru Statistical Summary Report of 2016 made by the Peru National Institute of Statistics and Information (INEI 2016); nationwide

information on the number of health care facilities was obtained from two online data repositories from the MOH of Peru on this subject (MINSA 2015b, 2015c). Data of life expectancy at birth was obtained from the Human Development Index report prepared by the United Nations Development Programme (UNDP) for Peru in 2013 (UNDP 2013). To determine crude death for the Comas district, we used a report on nationwide birth, mortality, and marriage rates prepared in 2013 by the INEI (INEI 2014). For the Ventanilla and Bellavista districts, we used local health situation reports prepared by the Regional Health Direction of Callao for the same year (DIRESA Callao 2013a, 2013b). The most recent updated information on infant mortality comes from the 2007 nationwide report prepared by INEI on this subject, which provides a comparison by department, province, and district (INEI 2009). For the national level data on the last two indices above mentioned, the Peru Statistical Summary was once more utilized. The 2013 local health situation report for Bellavista district was further used for maternal mortality case information in the Callao region (DIRESA Callao 2013b). As for Comas district, we utilized the local health situation report prepared by the Local Health Direction of Comas in 2014 (RSTA (Red de Salud Túpac Amaru) 2014). The data on maternal deaths in Peru as a whole was taken from an online data repository from the MOH of Peru (MINSA 2015d). For the number of staff, frequent diseases, and total new patient information per health center, we once more used the reports that were elaborated upon by the Health Promotion Programme local staff in 2014 (Albitres-Bazan et al. 2015; Ancieta-Cano et al. 2015; Escalante Tito et al. 2015). At the national level, an online report on main causes of morbidity from the MOH of Peru was retrieved (MINSA 2015e). With regard to data available on health behaviors, we utilized one document from the INEI on communicable and noncommunicable diseases from 2015, and two studies from the National Commission for the Development and Life Without Drugs (DEVIDA for its acronym in Spanish) (INEI 2015; DEVIDA 2012, 2014).

Data used for this study were collected in February 2014 from key health officials who met the following criteria, after consulting the respective authorities: (i) were working at the regional or local level, (ii) were responsible for managing and/or monitoring activities in the health center service areas, and thereby had a good knowledge of the mentioned activities; and (iii) were aware of the Health Promotion Programme and involved in its implementation (for example, the Director General or the Director of Health Promotion). The study sample was defined after matching the availability of the potential interviewees to the interview schedule. In this sense, the focal person for the Bellavista and Pachacutec Health Center was only one in each, and in the case of the Laura Rodriguez Health Center, two focal persons were able to respond to the schedule, thus were selected for data collection. In brief, four key health officials were purposively selected to represent the three health center areas: for the Bellavista Health Center, the Health Center Director was chosen; for the Pachacutec Health Center, we chose a team leader of the Health Promotion Office under the Regional Health Direction of Callao; and for the Laura Rodriguez Health Center, the Sub-Director, and the Institutional Development Director of the Tupac Amaru Health Net were chosen. Informed consent was taken from the interviewees before conducting the interview.

The capacity-mapping tool used in this study was the WHO Health Promotion Capacity Profile. This capacity-mapping tool was developed in 2004 in preparation for the sixth Global Conference in Health Promotion (GCHP) in Bangkok, Thailand in 2005. The national health promotion capacity of WHO member states was assessed and the results were presented at the sixth GCHP. There were three versions of the tool (short, short expanded, and long), as it was made to allow each country to use the version better suited to local conditions (WHO 2010). For this study, the mapping exercise was conducted through one-on-one

interviews with the short expanded version; for the Laura Rodriguez Health Center, the two mentioned officials completed one questionnaire, while for the Bellavista and Pachacutec Health Center one official responded in each, giving a total of three questionnaires. The interview process took an approximate of 50 min to be completed. The tool itself was not translated into the Spanish language, instead one enumerator assisted the process by request of each participant when the questions included in the tool were not clear, translating them and providing examples and clarification to the interviewee in Spanish to facilitate their responses. Two of the participants felt some discomfort while carrying out the process as the interview place was their own office and full privacy could not be ensured. The enumerator faced difficulties during the interview process, as participants' ratings on occasion dragged on for some time.

Health promotion capacity in the three health center service areas was measured by examining the eight core areas that are considered key requirements for effective health promotion in the WHO capacity mapping tool: core area 1 includes the policies and plans related to health promotion, with two subareas regarding policies, legislations and regulations (Subarea 1.1), and plans of actions, strategies, guidelines or programmes (Subarea 1.2); core area 2 includes the core of expertise in health promotion, which includes the existence of a health promotion unit within the MOH and evidence-based published research; core area 3 is the collaborative mechanisms within government, either within the MOH sectors or other ministries; core area 4 is programme delivery, which concerns the structure that allows the implementation of health promotion endeavors; core area 5 is the partnership among nongovernmental organizations, the private sector, and national government; core area 6 is professional development, which addresses government support; core area 7 is the information systems, including tracking and report of risk factors and activities; and core area 8 is specific financing for Health promotion. Responses were rated from 1 to 6 (6 being the highest) on options ranging from 'F' (not currently actioned) to 'A' (fully implemented). The responses were mapped in a graphical manner, according to the mentioned scoring criteria, in two ways: responses to the eight core areas for each health center service area, and the local-level results among the three study areas. Individual responses to subareas were also plotted and bar graphs were prepared, but are not shown here.

Results

General Information of the study areas

The population sizes for the Comas and Ventanilla districts are respectively more than five times those of the Bellavista district and represent specifically 1.4, 1.2, and 0.2% of the national population; however, the total population of Bellavista is assigned to the Bellavista Health Center, as it is the only first level facility in the district (as can be seen in Table 1). The average life expectancy in all study areas is 79 years old, which is around 5 years higher than the national average. During 2013, a total of 6.7 and 7.7 deaths per 1000 people occurred among the Comas and Bellavista populations, respectively; however, there were only 2.0 deaths per 1000 in the population of Ventanilla during the same year. Thus, the crude death rate of the Comas and Bellavista districts was higher than the national level, where 5.68 deaths occurred per 1000 population. Among the study areas, the Comas and Ventanilla districts had a higher infant mortality rate (11.0 and 10.5 infant deaths, respectively, per

Table 1. General information of the study areas.

	Nation		Region	
	Peru	Lima	Callao	
Area	Peru	Laura Rodriguez H.C.	Bellavista H.C.	Pachacutec H.C.
Population size (2016) (2013)[a,b,c,m]	31,488,625	442,343	73,489	389,440
Population assigned (2013)[a,b,c]	–	26,221	73,489	23,876
Health Center (2013)[a,b,c,n,o]	2096	14	1	4
Health Post (2013)[a,b,c,n,o]	7124	9	0	11
Life Expectancy at birth (2012)[d]	74.31	78.91	79.82	78.53
Crude death rate by district (2013)[e,f,g,m]	5.68	6.7	7.7	2.0
Infant Mortality Rate (2007)[h,m]	19	11.0	9.7	10.5
Maternal Mortality cases (2013)[g,i,p]	383	3	13	
Number of staff (2014)[a,b,c]	–	60	131	130
Total new patients (2013)[a,b,c]	–	3373	7699	19,159
Health behavior				
Tobacco consumption prevalence (past month) (2013)[j,k]	12.3%	13.3%	15.5%	
Alcohol consumption prevalence (past month) (2013)[j,k]	36.1%	34.5%	36.1%	
Drug use prevalence (past month) (2013)[j,l]	0.9%	0.6%	0.6%	
Dietary behaviors (at least 5 portions of fruits and/or vegetables salad per day) (2014)[k]	10.8%		14.2%	

Note: H.C: Health Center.
[a]Albitres-Bazan et al. (2015).
[b]Ancieta-Cano et al. (2015)
[c]Escalante Tito et al. (2015).
[d]UNDP (2013).
[e]INEI (2014).
[f]DIRESA Callao (2013a).
[g]DIRESA Callao (2013b).
[h]INEI (2009).
[i]Red de Salud Tupac Amaru (2014).
[j]DEVIDA (2014).
[k]INEI (2015).
[l]DEVIDA (2012).
[m]INEI (2016).
[n]MINSA (2015b).
[o]MINSA (2015c).
[p]MINSA (2015d).

1000 live births in 2007) compared to Bellavista, where 9.7 infant deaths per 1000 live births took place. The infant mortality rate in Peru for the same year was 19 deaths. With respect to maternal mortality cases, 13 cases of maternal deaths occurred in the Callao Region in 2013, though there is no updated information available for the individual districts, particularly those included in the present study. It is important to mention that the Callao region consists of six districts. In Comas, three cases of maternal deaths occurred in the same year. In the total Peruvian nation, 383 maternal deaths happened in the same year.

In the Callao region, both the Bellavista and Pachacutec Health Centers have approximately 130 workers, while the Laura Rodriguez Health Center has only 60. In 2013, the total number of new patients in the Pachacutec Health Center was 19,159, while the Bellavista and Laura Rodriguez facilities welcomed 7699 and 3373 new patients, respectively, during the same year. The prevalence on tobacco consumption among current users in both Lima and Callao provinces was greater than the national average of 12.3% in 2013 (13.3 and 15.5%, respectively). Nearly 35% of the population aged 15 years and older in Lima drank alcohol during the last month, and this occurred among 36.1% of the population in the

Callao region, same as the prevalence in Peru as a whole. In addition, 14.2% of the population aged 15 years and more in Lima and Callao regions together reported to consume at least five portions of fruit and/or vegetables salad per day in 2014.

The most common disease among the three study areas is acute upper respiratory tract infections, for which the Bellavista Health Center had 11,956 cases in 2013, followed by Pachacutec Health Center with 6982 cases, and 2771 for the Laura Rodriguez Health Center. The second most common disease – oral cavity and salivary gland diseases – is, once more, the same for all three health centers. In Pachacutec only, dental caries accounted for 1363 cases in 2013. The previously mentioned constituted likewise the first two main causes of morbidity nationwide in the same year. Concerning to the third most frequent disease, in Peru, intestinal infectious diseases resulted in nearly 1 million 200 thousand-outpatient consultations in 2013, while for the case of the study areas, ocular disorders (Bellavista Health Center), gastritis (Pachacutec Health Center), and other acute respiratory infections (Laura Rodriguez Health Center) comprised the third main cause of morbidity, accordingly (see Table 2).

Health promotion capacity in the study areas

Capacity for health promotion is limited according to the local-level evaluation in the study areas. Health promotion for the study areas is essentially a set of policies, guidelines, and Programmes (Figure 1, Table 3), as reported by the respondents. The National Health Promotion Directorate (DGPS) under the MOH is easily identified (core area 2); however, respondents reported a lack of published research based on local interventions at the national and regional level, as well as poor international recognition of the capacity of Peruvian experts. Collaborative mechanisms within government for health promotion activities were reported to be implemented by all health centers areas representatives. Specifically, within the MOH, the collaboration between ministries was reported to be 'just actioned'; therefore, we were not able to assess the results at the time of the exercise (core area 3). On Programme delivery (core area 4), all health centers reported having an established structure for health promotion pursuits. On the other hand, two of the three health centers reported that the use of evidence-based health promotion planning, implementation, and evaluation was 'under development'. The component of partnership for health promotion (core area 5) was reported to be low within the three health center service areas (average score of 2.6),

Table 2. Main causes of morbidity nationwide and in the three health centers service areas – 2013.

Rank[a,b,c,d]	Peru	Laura Rodriguez H.C.	Bellavista H.C.	Pachacutec H.C.
1	Acute Upper Respiratory Tract Infections (6,124,082)	Acute Upper Respiratory Tract Infections (2771)	Acute Upper Respiratory Tract Infections (11,956)	Acute Upper RespiratoryTract Infections (6982)
2	Oral cavity, salivary gland, and jaw diseases (4,139,897)	Oral cavity and salivary gland diseases (794)	Oral cavity, salivary gland, and jaw diseases (7314)	Oral cavity, salivary gland, and jaw diseases (2951)
3	Intestinal infectious diseases (1,195,258)	Other acute respiratory tract infections (715)	Disorders of ocular muscles, binocular movement, accommodation, and refraction (6823)	Gastritis, not specified (934)

[a]Albitres-Bazan et al. (2015).
[b]Ancieta-Cano et al. (2015).
[c]Escalante Tito et al. (2015).
[d]MINSA (2015e).

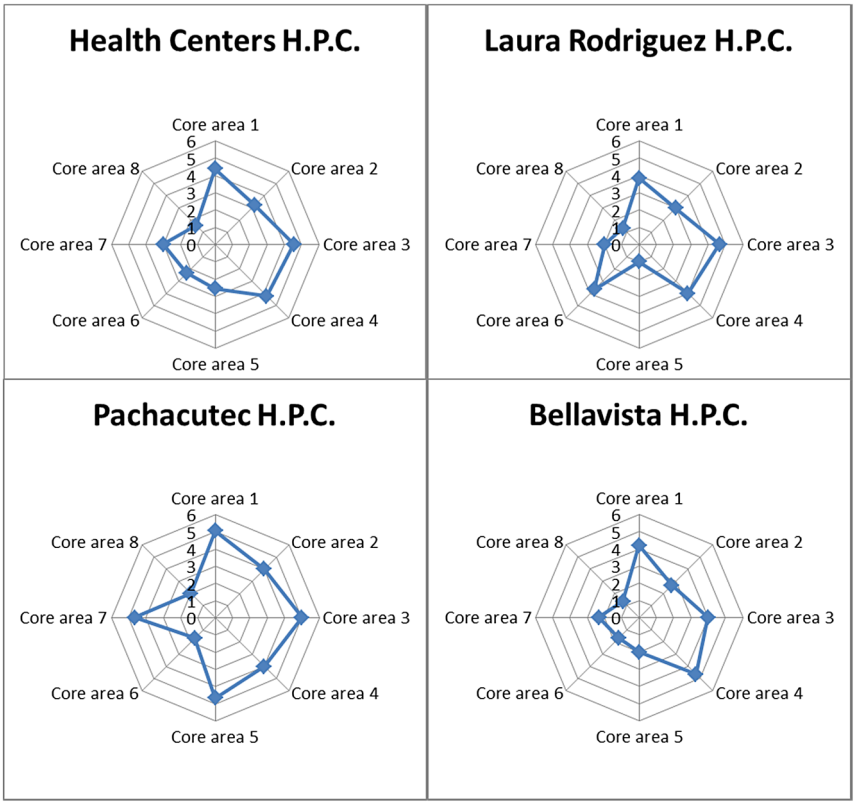

Figure 1. Overall results from the eight core areas and scores based on each study area.

Table 3. WHO Health Promotion Capacity Profile.

	Core areas
1	Policies and plans pertaining to health promotion
2	Core of expertise in health promotion
3	Collaborative mechanisms within government
4	Programme delivery
5	Partnership among nongovernmental organizations, private sector and government
6	Professional development
7	Information systems
8	Health promotion financing

Notes: Ratings: A (6): *Fully implemented*, B (5): *Partially implemented*, C (4): *Actioned*, D (3): *Under development*, E (2): *Being considered*, F (1): *Not currently actioned.*

with considerable variation among them; particularly, the Laura Rodriguez Health Center reported that this activity had not even been considered at the time of the mapping exercise, while for the Pachacutec Health Center, this type of collaboration was reported as currently operating. Professional development, including governmental support toward professional education at undergraduate and graduate levels, was reported to be extremely inadequate within the Callao region. According to the two health centers in this region, the average level of implementation was 1.7 (less than 'being considered'). Additionally, all study areas reported the absence of a professional association for health promoters.

The performance of information systems (core area 7) on tracking and reporting data on behavioral and environmental risk factors, as well as monitoring and evaluation of health promotion activities, was reported to be 'under development' at the time of the exercise. Specifically, officials from the Laura Rodriguez and Bellavista health center service areas reported that tracking and reporting data on risk factors were the most deficient, while the monitoring and evaluation of health promotion activities had the best overall performance, reaching 'partial implementation'. Health promotion financing (core area 8) was identified as the most deficient component of capacity in the three health centers, all of which reported budgetary shortages, coming from the fact that a separate budget line specifically for health promotion has not been implemented at the national level.

Discussion

Generally, although all health centers officials reported the existence of specific national health policies, plans, programmes and guidelines pertaining to health promotion, these have not been reviewed over the last 10 years and none has translated into a tenable national or community health promotion project to date. Only some of their components, as the case of the Health Promotion Approach Model, have been adapted into current operative frameworks by the Ministry of Health. In this sense, a few preventive-promotional activities, associated with information, education and communication undertakings, are part of a broad set of products directed to the population, based on the main causes of the burden of disease in Peru. In spite of this and other isolated endeavors, the conceptual framework of health promotion in Peru is unclear as the biomedical approach still prevails in the organization of health services; thus, health promotion in Peru is understood as simply disease prevention activities (Huidobro 2003; Maguiña and Galán-Rodas 2011). This challenge would require reaching a common agreement on the conceptual framework of health promotion and make it a national priority with the formulation of a 'Health Promotion Act'. Based on this, the framework could be clearly disseminated through the health system and related organizations so that currently operative programmes and actions could be restructured accurately, giving its activities a health promotion approach for them to be successful and maintainable.

On average, the availability of published research based on local health promotion efforts at the regional, national, and international levels were reported to be low. At the national level, it relates to the fact that Peruvian scientific production capacity is deficient compared to the international context, specifically that which is relevant to medical research, even among Colleges of Medicine nationwide (Maguiña and Galán-Rodas 2011; Valenzuela-Rodríguez, Herrera-Añazco, and Hernández 2015; Toro-Huamanchumo et al. 2016). With respect to the few local intervention studies that have been published, the articles are in English in international journals, which can limit the accessibility and review by interested parties at the local level (Nam et al. 2015; Sharma et al. 2015, 2016). Another specific related factor is the fact that currently, the status of higher education in Peru is such that there are only two schools of public health and preventive medicine among 142 public and private Universities nationwide, and neither is located in Callao (core area 6). Regardless, several of the remaining institutions offer postgraduate education programmes in public health and related disciplines. In 2011, 41 universities had at least one master's programme in public health or related area, and the incidence was greater among public

universities and those located in Lima (Alarcon 2011). Alarcon claims that most graduate programmes focus on administration, overlooking topics such as research, health education, formulation or implementation of health policies, and many other essential topics for public health practice, including health promotion. This has led to the argument that the Peruvian higher education system is fragmented; higher education products are basically offered according to the forces of the labor market, prioritizing technology and scientific fields, such as engineering. Thus, graduate students of currently existing public health programmes are lacking what is actually required for the national development of public health. Governmental management in this regard has shown itself to be deficient. The latest university reform since 1983 was the endorsement of a new University Act in 2014, looking for improving the poor education quality standard and promoting research (Diario official El Peruano 2014). Thus, support for health promotion education directly at the university level in Peru seems to be inadequate, contrasting with endeavors done at the international level (Wylie and Thompson 2007).

Partnership for health promotion (core area 5) was reported to be low within the three health center service areas. Specific experiences with nongovernmental organizations, and the private sector for joint public health and health promotion efforts are available in the literature (Buse and Waxman 2001; Gold et al. 2012). From WHO's participation in a number of these schemes seeking to achieve well-defined and specific health outcomes, to local endeavors for delivery of health promotion messages, partnerships for health are surely a common approach to address disease problems as well as promote and maintain health. However, in spite of the considerable opportunities it presents, this kind of practice has largely being criticized for the significant challenges it also raises (Hernandez-Aguado and Zaragoza 2016). For the Peruvian Government, this subject has been understood as performance contracting, in particular that of contracting out health care services, licensing and joint ventures for improving access and availability to the most poor, disregarding health promotion (Zevallos, Salas, and Robles 2014). In this sense, we understand that although collaboration for health promotion should be spurred, the Peruvian Government should first reflect on the opportunities and challenges entailed so that an approach that meets local public health needs with clear goals and roles can be ensured.

In Peru, there has been a systematic evaluation of the health budget since 2007, established by the Legislation of the Ministry of Economy and Finance of Peru (MEF) that established a new budget strategy based on results (Diario oficial El Peruano 2008). Under the presented framework, the MEF, in coordination with the Ministry of Health, established the form of budgetary programmes with specific results indicators prioritizing five health challenges in order to address the main causes of the burden of disease in Peru. As the three health centers officials reported and based on the current prevailing health approach in the country, there is no separate budget line assigned to health promotion at the national, regional, or local levels; making this the weakest part identified for the local-level capacity for health promotion in the three study areas. For this financial challenge, the Peruvian government could consider introducing an earmarked tax system, such as that based on tobacco tax, as the main source of financing projects and activities that promote health nationwide. As denoted in the results section, prevalence on tobacco consumption among current smokers was 12.3% nationwide in 2013; furthermore, total taxes levied on tobacco products currently represent 38.8% of retail price per pack of cigarettes (COLAT 2014).

Matus-Lopez et al. argues that this type of source also relies on greater technical margin and political feasibility to increase public expenditure on health (Matus-López, Prieto-Toledo, and Cid-Pedraza 2016). Thus, based on this system, tobacco tax investment to the local health centers will be useful for the development of sustainable health promotion endeavors (Nam et al. 2011). This way, the promotion component among the set of products currently provided locally (promotive, preventive, and curative tasks) would be able to become a priority for budget allocation at the national level, encouraging better planning and development of health promotion efforts.

Though mapping cases in several countries around the world have shown that capacity for health promotion is variously conceptualized and assessed based on local contexts and contents; the present mapping exercise has identified different key areas for action which have emerged as priority challenges for the MOH of Peru to support the health system and local-level facilities with regard to health promotion. Based on this, we consider that a more in-depth mapping of the Peruvian capacity, one that sees through the general components and reveals common barriers, problems, and their underlying causes is necessary, for which a combination of methods with a heavier reliance on qualitative research approaches needs to be considered. Alternatively, the use of analytical tools such as widely known and used HP-source.net could serve to the aforementioned.

Limitations

This research has some limitations, which require consideration in the interpretation of the findings. Firstly, data were collected from a very restricted sample; in addition, we used only one structured tool for data collection, which limits the extent of in-depth information able to gather. Secondly, as suggested by Ebbesen et al., multiple understandings of health promotion terminology could create limitations in measuring health promotion capacity (Ebbesen et al. 2004). As an example, although the Pachacutec Health Center has shown to perform better in some core areas as compared to the other two, this may not be due to better capacity for health promotion, but perhaps the respondent's own understanding of health promotion and its interpretation of the terms within the questions was different from that of the other participants. Considering that Peru is not a native-English speaking country, misunderstandings and conceptual misinterpretations of health promotion due to language barriers also constituted a difficulty for the present study, although data collection were assisted by one enumerator in Spanish when required. Additionally, as argued by Madsen health promotion is a difficult concept to define and concretize (Madsen 2016), for which there are issues that could not have been covered by the WHO Capacity Mapping tool. In the case of Peru, and as Huidobro further discussed, the issue of establishing community participation mechanisms that ensure their permanent involvement on actions and monitoring is a significant point, which was not addressed (Huidobro 2003)

Conclusion

Capacity for health promotion is not a unitary concept. The role of capacity mapping in health promotion in the study areas was that of providing a broad analysis of capacity components needed for implementing effective and sustainable community-level

initiatives. In addition, according to the study findings, the health promotion capacity map in Lima, Peru presents several lacking parts. The present study identified partnerships among the government, private sector, and nongovernmental organizations, professional development, and financing as the most lacking components to the capacity of health promotion according to the three health center service areas. However, other key areas of action also include non-updated policies and lack of evidence on health promotion. Therefore, at the local-level, community-based interventions that establish collaboration with non-state actors should be encouraged, as this emerging practice under clear goals and roles could further promote and maintain the health of the communities benefitting from these initiatives. In addition, local health promotion efforts such as the Health Promotion Programme in North Lima and Callao constitute a method through which the Peruvian government could support the strengthening of health promotion education for local staff, giving them a chance to 'tune' their competencies to that, which is best for the needs of the population they serve. This work is essential until the current education system is reformed, providing the public health and health promotion professionals that are required for the future of our country, and away from the biomedical focus that still prevails. For health promotion financing, the Peruvian government could introduce an earmarked tobacco tax system, where this investment to the local health centers will be useful for the development of sustainable health promotion programmes. In this way, health promotion in Peru will begin to shape as a priority independently from the current focus it has been given. The Health Promotion Programme in North Lima and Callao is an evidence-based reference to orient future community-based efforts focused on action in the determinants of health, where community participation is encouraged, and advocacy is efficiently used to avoid isolation of activities. Moreover, this type of initiative provides a response to the deficiencies such as those identified through the present study. We strongly recommend ensuring the sustainability of this type of initiative for promoting health in the communities where it is most needed in Peru, where the current reforming health system does not properly reach. Further and more in-depth mapping of the Peruvian capacity is necessary, and this can be a good starting point to direct the required actions to build a strengthened and 'tuned' capacity for the adequate benefit of Peruvian residents.

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