This is the first report of the large-scale utilization of migrants as health volunteers in a migrant primary-healthcare program. The program recruited migrants who volunteered to serve their communities. This study explores the identities of these volunteers, their relationship with program management, and their attitudes. The study also investigates the impact of the volunteers, from the migrants’ and healthcare workers’ perspective. The study was conducted in two provinces, Tak (northern Thailand) and Samut Sakhon (central Thailand). Primary and secondary information was collected. Mixed methods, comprising in-depth interviews, observation and questionnaires, were used to gather primary data from three groups of participants—migrant volunteers, migrants and healthcare workers. Secondary data, and in-depth interviews with healthcare workers, showed that migrant volunteers made a significant contribution to the provision of both preventive and curative services. The quantitative study covered 260 migrant volunteers and 446 migrants. The results found that <5% of volunteers were selected by the community. Almost all attended a training course. Most were assigned to be health communicators; four stated they did nothing. Volunteers’ attitudes were very positive. Most migrants reported that the volunteers’ work was useful. It was concluded that the migrant health-volunteer program did help deal with migrant health problems. However, management of the program should be closely considered for more effective outcomes.

**Keywords** Community participation, cross-border migrant health volunteer, Thailand

**KEY MESSAGES**

- Migrant health volunteers are an appropriate strategy for dealing with migrant health issues.
- Large-scale implementation of a migrant health volunteer strategy is possible, but effectiveness depends on appropriate administration of the strategy.

**Introduction**

Thailand has been a primary migratory destination for workers and their families from Cambodia, the Lao People’s Democratic Republic and Myanmar, because of its economic and social stability. In 2007, it was conservatively estimated that >2 million were working and living in the country, and >80% of these were Burmese (Scioritino and Punpuing 2009). Several reports have shown that the health status of migrants is normally inferior to that of non-migrants (Newbold and Danforth 2003; World Health Organization 2003; Jitthai 2009;
Migrants did not usually seek healthcare services for prevention or treatment, because of a lack of health information and services, compounded by language and cultural difficulties in communicating their problems (World Health Organization 2003; Wasserman et al. 2006; Jitthai 2009; Sthiramrongswat et al. 2009).

The Ministry of Public Health of Thailand (MOPH) recognizes that access to healthcare services is a human right for migrants; however, the Thai Government was unable to take total responsibility for the provision of adequate basic health services for all migrants. Community involvement was recognized as an important factor in the success of public-health programs (World Health Organization 1989; Department of Health Service Support 2006a; Silirak 2007; International Medical Volunteers Association 2010). Therefore, community co-operation was seen as beneficial, at least to help to solve the problem of inadequate manpower and poor communication between public-health personnel and migrants. Based on these premises, in 2003, the MOPH and the International Organization for Migration (IOM), with the support of the United States Agency for International Development, developed a migrant health-volunteer program in six districts of the northern provinces of Chiangrai and Tak (Department of Health Service Support 2006b). The program recruited long-term migrants willing to serve their communities voluntarily. These migrant volunteers were expected to serve as communicators between health authorities and migrant communities. Through this two-way communication, which would facilitate better understanding between both sides, it was foreseen that migrant health care could be managed more efficiently. These volunteers also serve as communication facilitators, to increase community knowledge of basic hygiene, disease prevention, and how to get treatment, if needed (Jitthai 2009).

In line with the program’s underlying principles, one volunteer per 50 households is selected by sociometric technique and approved by the community, or 5–10 volunteers per factory. Initial training of two days is provided, followed by refreshers twice per year. The training covers basic health issues, e.g. personal hygiene, maternal and child health and community sanitation (Jitthai 2009). With the co-operation and support of various agencies, the migrant-volunteer program was scaled up to cover 27 districts in seven provinces of Thailand, five provinces at the border of the country (Tak, Chiangrai, Ranong, Raichaburi and Chiang Mai provinces) and two provinces in the industrial areas near Bangkok (Samut Sakhon and Samut Prakan provinces) (Raks Thai Foundation 2005; Department of Health Service Support 2006b; Tak Provincial Public Health Office 2007; Jitthai 2009; Shield Thailand Program 2010).

However, the program has not been evaluated, apart from stakeholder reports (Tak Provincial Public Health Office 2007; Jitthai 2009; Shield Thailand Program 2010). This article, therefore, explores migrant volunteers, their relationship with the management structure of the program and their attitudes towards volunteer work. The program might not be helpful as planned if migrants do not use the service. The program may not be sustainable if the healthcare workers do not find it makes any contribution. Hence, the study also focuses on the contribution of the volunteer program from migrants’ and healthcare workers’ perspectives.

**Methods**

This was a cross-sectional study. Data were gathered during April–October 2008 in Tak and Samut Sakhon provinces, where migrant populations ranked second and third in number, after Bangkok. In addition, Tak is selected to represent border provinces and Samut Sakhon represents urban, industrial provinces.

**Participants**

Three groups of participants were recruited: migrant volunteers, migrants and healthcare workers.

**Migrant volunteers**

There were 1463 migrant volunteers, 900 from Tak and 563 from Samut Sakhon. Estimating a population proportion is the method used to calculate sample size. The proportion of volunteers trained was 0.80. At least 211 migrant volunteers were needed. It was expected that 10% of questionnaires might not be completed, so that 223 migrant volunteers were required. The sample sizes for Tak and Samut Sakhon were calculated using the proportions of migrant–volunteers per province. As a result, 133 and 90 migrant–volunteers were required from Tak and Samut Sakhon, respectively. Simple random sampling was used to recruit migrant volunteers from the list of volunteers in each district.

**Migrants**

Based on 60% of migrants having knowledge of dengue transmission (Tak Provincial Public Health Office 2007), a minimum sample size of 369 was sufficient to represent migrants using migrant–volunteer services in the study areas. It was expected that 10% of questionnaires might not be completed, so that a sample size of 406 was required. Using convenience sampling, research team selected 1–2 migrants per recruited migrant–volunteer. These migrants were interviewed at the same time the volunteers were interviewing.

**Healthcare workers**

Two groups of healthcare workers, government and international organization, were included. They were local, responsible persons at different levels who were willing to participate. The study interviewed 16 government workers, three from the provincial health office or provincial hospital and 13 from the district health office or community hospital. Four people from international organizations were interviewed: two from IOM and another two from SHIELD Thailand Program.

**Description of the migrant health-volunteer program**

The shortage of unskilled labour in Thailand started in the 1990s because economic growth in the 1980s boosted the demand for workers, particularly to undertake work considered ‘dirty, difficult and dangerous’, such as agriculture, fisheries and domestic work. Therefore, the Thai government has promoted a registration policy for migrant workers since 1992, to allow migrants from Cambodia, Lao PDR and Myanmar, to be employed as labourers (Chantavanich et al. 2007). Over two million migrant workers and their families are estimated to live
or work in Thailand, and ~20% of these are legally registered (IOM 2010).

Migrant health volunteers, one element of the migrant-health program, aim to help provide a comprehensive, participatory, sustainable and cost-effective migrant health service. Migrant health volunteers are registered or unregistered migrants, who are willing to serve their communities or workplaces in basic health services, and receive no payment. In practice, the program annually provides T-shirts with the logo of the sponsor agency. This gives volunteers visibility as they play a volunteer role in the healthcare system. Occasionally, volunteers would receive household supplies, such as kitchenware and dried food. In addition, local healthcare workers would join in volunteers’ social and religious ceremonies to keep their relationships.

Data collection
Information about the migrant volunteers and migrants was gathered by in-depth interviews and observation, and then used to develop separate structured questionnaires for each group. The migrant–volunteer questionnaire comprised sociodemographic characteristics, management of the volunteer program and attitudes towards volunteer work. The migrant questionnaire comprised demographic information and questions about the volunteer program. Each volunteer and migrant was interviewed by a trained, bilingual interviewer. Information gathered from the in-depth interviews and observation was also used to interpret and discuss the results of the questionnaires. In-depth interviews were used to gather information about program management and the performance of migrant volunteers from 20 healthcare workers.

In addition to the primary data, the study collected information from reports, particularly on the performance of migrant volunteers (Bureau of Health Service System Development 2005; Tak Provincial Public Health Office 2007; Jitthai 2009).

Ethical considerations
This study was approved by the Ethics Committee of the Faculty of Tropical Medicine, Mahidol University. Participants were recruited after providing written informed consent.

Results
Volunteer work
This part of the results was from interviews with the providers, observation, as well as from reports (Bureau of Health Service System Development 2005; Tak Provincial Public Health Office 2007; Jitthai 2009). Tak and Samut Sakhon provinces used the same management processes for their migrant volunteer programs, for selection, training and supervision. In general, volunteers helped provide preventive health services, including hygiene, nutrition and reproductive health. However, volunteers in different districts were asked to help with different jobs, depending on the health problems in the area. In one district in Tak Province, volunteers were asked to help the surveillance team prevent and control epidemic diseases, such as severe diarrhoea and dengue. In another district, volunteers helped prevent and control soil-transmitted parasites, while in another, volunteers made home visits for family planning purposes. In Samut Sakhon Province, some volunteers helped with treatment services, such as functioning as tuberculosis directly observed therapy (TB DOT) observers, watching their neighbours take their TB medications. It was reported that treatment success rates increased, so more volunteers were trained as DOT observers (Bureau of Health Service System Development 2005). In some workplaces in both Tak and Samut Sakhon provinces, migrant health corners were run by migrant health volunteers, to provide/advise about basic health services for their peers; e.g. they distributed contraceptive pills and condoms, and provided first aid.

Volunteers received no monetary compensation for their work. The following section reports on the nature of these volunteers—who they were, how they were selected and trained, and their attitudes towards volunteer work. The study also reports how the migrants, as consumers, perceived these voluntary workers.

Sociodemographic characteristics
Of the 260 migrant volunteers participating in this study, 148 (56.9%) were from Tak Province and 112 from Samut Sakhon. More volunteers were female (59.2%) than male. Most (40.8%) had not completed primary school, 10% were illiterate and 23.5% had completed secondary school. Approximately 71% were married, 79.2% were Buddhist and 62.2% earned their income from daily wage work. Approximately 90% were born in Myanmar and 73.8% had lived in Thailand for >5 years (Table 1).

Management of the volunteer program
Among the 260 volunteers, 68.4% performed their voluntary work in the community, whereas 31.6% volunteered in the workplace. Over half (54.6%) had been volunteers for >2 years. In terms of selection, 50% were selected by migrant health workers or other volunteers, 30% by community leaders or factory managers, and 10.4% were recruited by healthcare providers; only 4.6% were selected at community meetings, and 4.6% volunteered themselves at a community meeting. Only six volunteers had not attended a training course. For those who attended a training course, 64.4% said they understood everything taught, 31.3% partially understood and 4.7% did not understand the training course at all (Table 2).

Roles and responsibilities
Almost 90% reported that they were assigned to be health communicators; 64% also looked after the community environment; 51% notify the community about health services, and 4 reported that they did not do any voluntary work. Only 11 volunteers said that they had dropped out of the program, whereas 95.5% still continued their volunteer work (Table 2).

Most volunteers (86.5%) reported that their community/ co-workers consulted them about health problems. A quarter of them (25.4%) reported problems with voluntary work; the reasons included lack of knowledge (33.3%), insufficient time (34.8%), communication problems (24.2%) and too much responsibility (10.6%) (Table 3).

Attitudes
All the volunteers believed that volunteer work was useful for the community. Almost all agreed that volunteer work could
help their ethnic counterparts; volunteer work was considered merit-making, and being a volunteer increased health knowledge. Most were proud to be volunteers and believed that the community trusted them. Regarding the characteristics of the volunteers, almost all believed that volunteers should be young, altruistic and self-confident. Some volunteers also believed that volunteer work might involve some risk of infection, and be an impediment to the conduct of their daily responsibilities. Most disagreed that only women should be volunteers, and most believed the elderly could still be effective volunteers. Only one-third agreed that they became volunteers at the request of Thai authorities (Table 4).

**Migrants’ views**

The study interviewed 446 migrants who lived in the same villages or worked in the same factories as the volunteers. Slightly over one-half were from Tak Province and 47.5% from Samut Sakhon. About two-thirds were female, 63% had education levels below primary school, or were illiterate. Most were Buddhist, 57.6% were employees and 90% had lived in their village or worked in their factory for >1 year (Table 5).

Four of 359 migrants did not think the volunteer program was useful. Most knew the volunteers and received health information from them. Some also said the volunteers had looked after the community environment and informed the community about the mobile health service (Table 6).

**Discussion**

This study indicates that recruitment of migrants into the primary healthcare system can be beneficial. Attitudes towards the volunteer program were very positive, and the migrants understood the benefits of their volunteers and utilized health services. Improved program management, better suited to the practical situation, would result in more beneficial outcomes.
Coverage

Local healthcare workers tried to reach the coverage target of the program (one volunteer for every 50 households). However, it was observed that some volunteers were in very close proximity to others. Although this may be appropriate in terms of population ratio, only one or two volunteers in the group normally worked, whereas the others did not. Therefore, different criteria for the distribution of volunteers may be considered in different settings, e.g. not only the number in the population/households but also the extent of the area/distance covered and geographic proximity.

Selection

The program specified that volunteers should be selected by sociometric technique, and be approved by a community/workplace meeting. However, <5% of the volunteers were selected by the community. Previous studies (World Health Organization 1989; Okanurak et al. 1992; Okanurak and Ruebush 1996; Bhattacharyya et al. 2001; International Medical Volunteers Association 2010) have shown that volunteers selected by the community performed better than those selected by other means, because the community knew who would be the most appropriate people to serve in this capacity. The volunteers also felt proud of being trusted by the community, not just by one or two persons, such as a community leader, a factory manager or another volunteer.

Training

Training is an important factor for the success of a volunteer program, because it helps volunteers to determine and direct their activities (World Health Organization 1989; Okanurak et al. 1992; Okanurak and Ruebush 1996; Bhattacharyya et al. 2001). In this study, one-third of the volunteers said that they did not understand or only partially understood the content of the training program. This implied that the content of the training might be too complicated for them to understand in a short time. Although the training package was developed and
Table 6 Migrants’ concerns about the volunteer program

<table>
<thead>
<tr>
<th>Issue</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know who is/are migrant health volunteer(s)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>359 (80.5)</td>
</tr>
<tr>
<td>No</td>
<td>87 (19.5)</td>
</tr>
<tr>
<td>Volunteer work is useful</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>355 (99.1)</td>
</tr>
<tr>
<td>No</td>
<td>4 (0.9)</td>
</tr>
<tr>
<td>Services* provided by volunteers</td>
<td></td>
</tr>
<tr>
<td>Distribute health information</td>
<td>315 (87.5)</td>
</tr>
<tr>
<td>Care for community environment</td>
<td>189 (52.5)</td>
</tr>
<tr>
<td>Notify community of health services</td>
<td>156 (43.5)</td>
</tr>
<tr>
<td>Other</td>
<td>68 (18.9)</td>
</tr>
<tr>
<td>Want to be a volunteer</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>214 (59.4)</td>
</tr>
<tr>
<td>No</td>
<td>146 (40.6)</td>
</tr>
</tbody>
</table>

*Each volunteer can provide more than one service.

evaluated in Tak province, much content might be new to most of the volunteers. In addition, the study found that 63% of the volunteers were illiterate or did not complete primary education. Therefore, the training should minimize classroom lectures, and emphasize group exercises, role play, and demonstration, for example. Moreover, training was conducted by Thai healthcare officers, and then translated into the Myanmar language. This may be another reason for not understanding the training. It would be more effective if the trainers communicated in the same language as the volunteers.

Supervision and Supply

Adequate supervision and supplies are important for retaining volunteers in the program (World Health Organization 1989; Bhattacharyya et al. 2001). However, the study found the system of supervision was unclear; e.g. it was unclear who the supervisor was, and how often supervision actually took place. It might be difficult for Thais to supervise volunteers; nevertheless, it is essential that the program have an appropriate monitoring and supervision system, to measure and evaluate the impacts/effects of the program. At the time of the study, the total numbers of volunteers, active volunteers or drop-out volunteers were not systematically recorded. This information would help manage the program more effectively.

Migrants’ Attitude

One of the most important factors in maintaining the volunteer program is the attitude of the people towards the program (Bhattacharyya et al. 2001). If they do not think the program is useful and they do not utilize its services, a program becomes ineffective and inefficient. The migrants felt that the migrant volunteers were beneficial to them and the wider community. One informant said the number of abortions in her factory had decreased after the migrant volunteers distributed contraceptive pills and condoms. Another informant noted that the community environment had improved. However, the volunteer program did not have any systematic records of the impact of the volunteers’ work.

In conclusion, this migrant–volunteer program might be the first to use migrant volunteers on a large scale. The program has helped solve problems of inadequate manpower, and language and cultural differences, in both prevention and treatment. It would be more effective if the concerned stakeholders (MOPH and the International organization sponsors) strengthen the management of the program in terms of selection, training and supervision. The issue of how this volunteer program will be sustained after withdrawal of its donors should be seriously considered.

Acknowledgements

The authors thank all the migrant volunteers, the migrants and program officers for participating in this study.

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Endnote

1 A diagrammatic or mapping technique used to display the interpersonal preferences of members of a group, i.e. who likes who, who works best with who, who is the preferred leader, etc. (http://www.encyclo.co.uk/local/20474).

References


