Transformational Leadership in District Health Systems : Thailand's Experience

Walaiporn Patcharanarumol[1] Rapeepong Suphanchaimat[1,2]
Apisit Thamrongvarangkul[3] Thinakorn Noree[1]
Varan Wangjitchian[4] Yothin Thanormwat[1]

Abstract

Background : Access to healthcare in rural and remote areas in Thailand is an important element in ensuring that Universal Health Coverage is achieved. The presence of a trained and motivated health workforce in these areas is therefore an important factor for health system development in Thailand. Transformational leadership plays an important role in establishing well-performing health teams. This article draws lessons from the Thai experiences and provides evidence on the pivotal role of transformational leadership from the medical doctor, the leader the health team.

Methods : Document reviews and key informant interviews from health staffs in three provinces upcountry were performed : (1) Samutsongkram province, (2) Khon Kaen province, and (3) Tak

[1]International Health Policy Program (IHPP), Ministry of Public Health, Thailand
[2]Banphai Hospital, Khon Kaen Province, Thailand
[3]Ubolrat District Hospital, Khon Kaen Province, Thailand
[4]Amphawa District Hospital, Samutsongkram Province, Thailand

province. Thematic analysis was applied using four components of transformational leadership.

Results : The District Health System is a primary care network in all districts in the country, serving as a firm basis for achieving Universal Health Coverage. The multidisciplinary health team consists of a wide range of health professionals, such as doctors, nurses, pharmacists, other professionals and public health officers. The function of the multidisciplinary health team involves not only facility-based health staff, but also non-professional staff, such as health care volunteers, and community residents. In the three settings studied here, health teams with a transformational leader displayed good performance in terms of (a) improving provision of a comprehensive health service package and (b) improving well being beyond health through considerations of sustainable livelihood, wealth and equity through advocating for the marginalized.

Conclusion : Commitment and transformational leadership by medical doctors, particularly those in rural areas, are key factors that help the multidisciplinary health team garner support from various stakeholders, such as NGOs and academicians for building up 'healthy' communities that go beyond good physical health and support other aspects of 'well-being' for everyone on Thai soil.

Key words : District health system, district hospital, health centre, transformational leadership, Thailand

Background

A strong health workforce is one of the most critical components of a functioning health system. The era of primary care strengthening, kicked off at the 1978 Alma-Ata, International Conference on Primary Health Care, which stressed the importance of the development of well-trained health care teams at the local levels in order to respond to the health needs of the community (World Health Organization, 1978). In September 2015, the most recent Sustainable Development Goals, endorsed by all head of states at the United Nation General Assembly, included the recruitment, training, and retention of health workforces as one of the targets under Goal 3 in ensuring healthy lives and in promoting well-being for all (United Nations, 2015, de Francisco Shapovalova *et al*.).

Sustainable health financing, appropriate recruitment and retention strategies of health workers, and quality training programmes are important elements for Human Resources for Health (HRH) planning and management that countries are pursuing. Within the health sector, the 138th session of the Executive Board meeting of the World Health Organization (WHO) discussed the draft global strategy on human resources for health : workforce 2030, and it was adopted by the 69th World Health Assembly for endorsement (World Health Organization, 2015). The draft global strategy emphasizes multidisciplinary teams with an appropriate mix of competencies and scope of work for delivering comprehensive services at not only a hospital but also other settings including the community.

With the aforementioned background, there is now a growing body of research on HRH as part of Health Systems Strengthening (HSS). This paper thus describes examples where health professionals within the district health system (DHS), particularly doctors, could lead display leadership in health for addressing health workforce shortages, providing comprehensive health services, and promoting health and well being of the rural population. This study focuses on Thai experiences with an aim that lessons drawn from this paper could be applied to other countries where health workforce shortage is of important concern in the national policy discourse.

Methods

The scope of this study focuses on the DHS. Three case stories were purposively selected, namely, (1) Amphawa District, Samutsongkram province, (2) Ubolrat District, Khon Kaen province, and (3) four districts of Tak province. Document review was employed as the main data collection technique. The study site selection was based on an intention to have maximal variability of geographical areas, and was suggested by senior officers and human resource for health experts in the Ministry of Public Health.

The reviewed documents included Thai newsletters on human resources for health called *'Pee Sue Ka Yub Peek'*, published by the Human Resource for Health Development Office, funded by Thaihealth Foundation and its network institutes (HRDO, 2010). Additional references were sought from the interviews with healthcare providers in the study areas. Thematic analysis was applied, using

both inductive coding (generating themes from the field), and deductive coding (adopting themes from the priori framework) The framework of transformational leadership and healthcare was used for deductive coding. The four main components from the framework was discussed, namely, idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Robbins and Davidhizar, 2007).

Results

Overall, the success of these three selected case stories could be summarised in the following table, see Table 1.

Table 1 Overview of the three cases on leadership in health

	Case 1	Case 2	Case 3
Setting	Ubolrat District, Khon Kaen Province	Amphawa District, Samutsongkram Province	Mae-Ramat, Poppra, Tasongyang and Umphang Districts, Tak Province
Contextual factors	A district in the North-eastern Region of Thailand, the poorest region. Districts in this region are the most disadvantage in term of economic and health workforce shortage and mal-distribution.	This is a well off district which is closed to Bangkok, the capital city. Health workforces, especially doctors, normally come and go. Turnover rate is high.	These districts are at Thai-Myanmar border. There are huge number of ethnic communities and stateless persons and they are not covered by Thai Universal Health Coverage (UHC).

	Case 1	Case 2	Case 3
Leadership at District Health System (DHS)	The hospital director committed staying longer term. Paradigm shift from curative to preventive services. The hospital director works beyond the health sector and identifies needs in the community that affect health.	The hospital director has shown high commitment to staying in the DHS and led the team to support health centres.	The hospital directors of the four districts formed a working group to collectively work with non-government organizations (NGOs) and academia and local government units to set up a 'legal clinic' in the hospitals to help address citizenship status of marginalized patients.
Health outcomes	Patients had better access to health services, not only curative but also preventive services. The strategies of empowering villagers were applied for improving both the health and economic status of the villages.	The DHS was a part of Thai UHC movement and promotes public health functions. Other health cadres were happy to support health centres and community based care e.g. rehabilitation at home.	Stateless peoples got support from 'legal clinics' not only for medical treatment but also solving a problem of citizenship.

There were four important themes being identified, that is, (1) Attuning to community needs, (2) Comprehensive health service provided by local multidisciplinary health team, (3) Focusing on social determinants, and (4) Transformational leadership of medical doctors, with details as follows.

Theme 1—Attuning to community needs

The case of Ubolrat District Hospital reflects this theme very well. One of the pioneers of rural doctors became the director of

Ubolrat District Hospital in 1986, and is still holding the position. Ubolrat is a district in Khon Kaen, a province in the north-eastern region of Thailand, with the majority of inhabitants serving as peasants and manual workers.

The total population of Ubolrat is about 43,000. After three years of being the director at Ubolrat District Hospital, the number of outpatient visits skyrocketed by four fold, from just 20 to over 90 cases per day. Though such a situation is indicative of better access to care, it created financial difficulties to the hospital and even undermined the quality of care.

At that time, Thailand had not yet achieved Universal Health Coverage (UHC); with limited government budget. This meant that the majority of the hospital income was earned from out-of-pocket payment from patients. Nonetheless, due to the poor economy in the district, it was extremely difficult for the patients to defray the treatment expense. Yet, the hospital always provided care at its full capacity. The hospital director thus realised that the conventional concept, 'more visits = better health' might not be an answer. Taking on the task to conduct his own small research study within the district, he found that about three quarters of patients suffered from preventable diseases, which can be cured with basic and proper care at home, without a need for advanced medical treatment.

Therefore, several initiatives were established. An evidentiary case is the capacity building programme for local villagers to promote rational use of medicine at home and the training of more than 60 traditional/herbal healers, who helped treat some common diseases at the patient's home under close supervision by health

professionals. It was found that in 2004 more than 20,000 patients were treated by well-trained local healers. Accordingly, the service burden of the facility was reduced dramatically.

The hospital director's medicine programme called for basic drugs being distributed to local retailers at very low cost upon the condition that the retailers must join the training sessions arranged by the hospital. Revenue from the drugs purchased by retailers had to be accumulated by a co-operative in the village. This project not only facilitated access to medicine, but also helped improve economic status by tacitly making villagers more familiar with saving behaviour.

A number of other initiatives were also set up under this leadership in order to tackle not only health issues of local residents, but also their living status. Before the Asian Economic Collapse in late 1990s, most of the residents in Ubolrat were vastly influenced by materialism, 'more money equals to more happiness'. As a result, many peasants relied on monocropping with an aim to feed agricultural industries and gain lucrative sums.

Furthermore, most villagers at working age migrated to larger cities in order to join labour jobs, leaving the vulnerable groups, such as children and the elderly, behind. The hospital thus encouraged residents in nearby villages to apply sustainable agriculture concepts instead. This idea was supported by senior villagers, who are regarded by the communities as 'local wisemen'.

In the meantime, after the country's economic collapse in 1997, this idea was highlighted by the 'sufficient economy' theory, proposed by His Majesty the King Rama IX. The maxim suggested that

multicrop farming with meticulous use of land is likely to bring about several natural assets, namely soils, trees, and food, which are more valuable than money.

This initiative was gradually widespread to over 70 villages in the district. As of 2006, the project planted more than 350,000 trees (PTT Public Company Limited, 2007). In Tungpong Subdistrict, with a total population of 5,300), in 2010, the local residents were able to reduce household expenditure by over 6.5 million Baht (US$ 203,000), and about 4.4 million Baht (US$ 138,000) of the household debt was resolved (PTT public Company Limited, 2011).

It is noteworthy that, in spite of acting like the only champion, the hospital director always mobilised his social and intellectual capital to gain cooperation from various stakeholders, including village heads, local academia, local government units, monasteries and traditional healers; and attributed the success to local people. Trust-based relationships and interactive learning between the health sector and the local communities were key factors to the success.

Theme 2–Comprehensive health service provided by local multidisciplinary health team

Similar to other rural area settings, rural retention of the health workforce, especially medical doctors, was a critical challenge. An example of using mixed health teams to ensure sufficient coverage was seen at Amphawa DHS, Samutsongkram Province, which covered 57,161 people in Amphawa District under the MOPH health facilities (comprising 1 district hospital (30 beds) and 17 health centres). As of August 2014, the Amphawa DHS had 128 staff members at its

district hospital; 65 health officers in health centres and 590 village health volunteers. The director of the Amphawa District Hospital had been working here for more than 15 years despite the fact that he was not a local. Other medical doctors normally came for a few years, including at least three years of government mandatory rural services for new medical doctor graduates.

The majority of health staff were nurses (44 of 128 total hospital staff) who were local there. Similar to nurses, the majority of other hospital staff (70% of total hospital staff) were local people, see Table 2.

Table 2 Profiles of all 128 health staff at the Amphawa District Hospital, as of August 2015

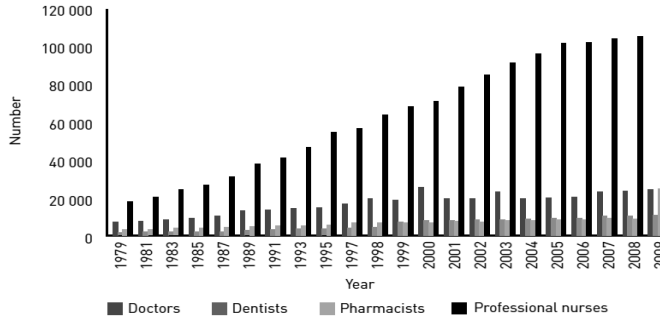
	A. Born and grown up in this district	B. Born and grown up in a nearby district in the same province	C. Born and grown up in other province, in the same region	D. Born and grown up in other province outside the region	Total (n)	%
1. Medical Doctor	--	--	5	--	5	3.9%
2. Dentist	--	--	4	--	4	3.1%
3. Pharmacist	--	2	1	2	5	3.9%
4. Nurse	12	25	2	5	44	34.4%
5.Other paramedics*	2	2	2	1	7	5.5%
6. Other staff, eg admin	22	25	6	10	63	49.2%
Total	36	54	20	18	128	100.0%
%	28.1%	42.2%	15.6%	14.1%	100%	

Note : *Other paramedics were medical technologists, physiotherapists, Thai traditional medicines and public technical staff

Source : Quick survey by the authors

The national data was similar to the data from Amphawa District Hospital where nurses had been serving as the majority of the health workforce for decades, see figure 1.

Figure 1 Number of doctors, dentists, pharmacists and professional nurses during 1979-2009



Source : Jongudomsuk, *et.al.* (2015)

Therefore, nurses had been considered backbone of the Thai health system. However, nurses alone could not effectively function unless having adequate support from other health cadres, such as pharmacists, dentists, medical doctors, other public health officers, supporting staff and health volunteers. Therefore a 'multidisciplinary team' was indispensable.

It was apparent that the committed director of hospital showed strong leadership in taking the team to support health centres with comprehensive health services. Doctors at the hospital, including the director, took turns in visiting health centres every week. The director also required other cadres including dentists, pharmacists

and physiotherapists to rotate to the affiliated health centres. These allied health professionals, including village health volunteers, visited patients' houses regularly to provide health promotion, and disease prevention interventions such as diabetic and hypertension screening at home. All of these functions were in line with the concept of 'close-to-clients' services, allowing chronic disease patients to visit a doctor at the nearby health centres or at home, instead of travelling far to the hospital (Jongudomsuk *et al.*, 2015).

Theme 3—Focusing on social determinants

Tak was another example where transformational leadership was able to create a system that supports UHC, and where health professionals could help address social determinant problems (in this case, citizenship status). The province was located near the Thai-Myanmar border in the northern region, with a large number of ethnic communities and stateless persons (or 'people with citizenship problems' in the official term), who were believed to be born in Thai territory but failed to be authorised as Thai nationals due to difficulty in accessing the registration site and ignorance/unawareness of the birth registry system. Recognizing the importance of stable access to social services and the insecurities associated with citizenship challenges, directors of the district hospitals at Tak border (namely Mae-Ramat, Poppra, Tasongyang, and Umphang district) hence formed a working group in 2014, called the '4-doctors', in order to help each other in tackling citizenship problems of a patient,

rather than providing him with just medical care (Saisoonthorn *et al*., 2015).

They sought support from academia, NGOs and local government units in establishing the 'legal clinic' in hospitals. The clinic helped link the patients to the authorities with an ultimate goal to resolve his/her citizenship problem alongside provision of medical treatment. This approach also helped improve quality of life of the (stateless) patients in the long run as they would be able to be insured in the main public health insurance schemes once their nationality was verified. Besides, this process helped prevent statelessness problem on newborns. The work of the 4-doctors for the stateless population alongside support from NGOs significantly influenced the MOPH to expand insurance policies to cover over 200,000 stateless persons in 2015 (Hfocus, 2015).

Theme 4—Transformational leadership of medical doctors

To summarize the role of transformational leadership in the three case studies presented, the table below outlines how the four components of this type of leadership supported improvements in health and quality of life in the three different settings and affected the structure of the health system to become more responsive to community needs, thereby facilitating the contribution of other allied health professionals in health promotion, see Table 3.

Table 3 Four components of transformational leadership and the three case studies

Four components of transformational leadership*	Case 1 Ubolrat District	Case 2 Amphawa District	Case 3 Four districts, Tak Province
1. Idealized influence The leader is recognized as a model. The leader's vision is pursued with confidence, determination and focus. Other physicians and healthcare personnel working with leaders with idealized influence respect them and are proud to be associated with them.	• The district hospital director was a role model for health staff in the district. • His paradigm shift from curative to health promotion services based on being attuned to community needs through a small scale research study	• The district hospital director was a role model for health staff in the district. • His vision was to support health centres using multidisciplinary health teams. District hospital and health centres work together for comprehensive health services at health facility settings and community level	• The directors of four district hospitals combined effort by working together as '4 doctors' • Their ambitious goal and vision was one of right to health for everybody
2. Inspirational motivation The leader is able to communicate his/ her vision, principles and adherence to the healthcare mission effectively. This occurs in written and verbal forms, and through personal behavior as well as specific statements.	• An initiative of retailers of medicines and then collective effort to be a co-operative in the village • An initiative of sustainable agriculture concept, which is beyond the health sector and widespread to over 70 villages in the district	• During the difficult period of lacking medical doctors at the district, the hospital director remained committed to both the district hospital and health centres. Other health staffs joined him in his efforts	• Collective effort of establishing 'legal clinic' for stateless people

Four components of transformational leadership*	Case 1 Ubolrat District	Case 2 Amphawa District	Case 3 Four districts, Tak Province
3. Intellectual stimulation Leaders exhibiting intellectual stimulation challenge those working under them to question the status quo and to address difficult problems by coming up with new or innovative solutions.	• Using evidence at a small scale to prove that the majority of patients did not need curative services and the burden of disease could be alleviated with interventions beyond the health sector.	• Leading the health team to work collaboratively at health centres and communities which provide care in patients' homes e.g. rehabilitation at home which is more convenient for disabled or elderly patients and saves time and money for patients	• Medical treatment alone cannot solve the root cause of the problem for stateless people • The legal clinic links a patient to local authorities for solving his/her citizenship problem in parallel with the medical treatment provided
4. Individualized consideration The leader recognizes the contributions of subordinates for their efforts and accomplishments in pursuit of the healthcare mission.	• Capacity building programme for local villagers for rational use of medicine at home and training of more than 60 traditional/herbal healers • Empowering 'local wisemen'	• Competency of the physiotherapist to set up a training course for staff of health centres in order to support rehabilitation services. It is empowering for both the physiotherapist and staff of health centres	• Empowering health staff and a stateless persons to realize and solve the root cause of the prob lem

Note : *Four components of transformational leadership from Robbins abd Davidhizar (2007)

Source : Synthesis by authors

This was supported by some quotes below from the health staff at Amphawa District.

"We (nurse and other health staff) see our director going to health centres regularly. Although he has too many tasks in his hands, he obliges himself going to health centres and communities. Subsequently, he spends time for signing a pile of documents of

hospital during the evening or even over the weekend. Previously, we did not want to go to the villages as it is not as convenient as working at the hospital setting. Our director demonstrates that it is workable and good for people and then we follow him." [Professional nurse at Amphawa Hospital]

"Health staff either medical doctor or other paramedic gets high recognition from villagers. It is very easy to convince them (villagers) to do any project initiated by a medical doctor. For us, we trust in you, a medical doctor, especially the director of a hospital. Amongst many other sectors, we trust you (Ministry of Health] most. This is because of the social asset of health sector since many decades ago and it remains." [Local government staff at Amphawa District]

The story of these three settings is just a few amongst many examples of how medical doctors in rural areas mobilise their social and intellectual capital in benefiting quality of life in the communities. As each area has its own context, there might be some nuanced differences of initiatives across provinces; however the transformational leadership by medical doctors was always an important factor, amongst other things, that contributed to this success.

Note that the leadership role of these medical doctors was connected to the contribution of the Rural Doctor Society to the wider public. Back to the 1960s, a rapid exodus of new Thai medical graduates to the western world prompted the government to launch several strategies to address inequitable distribution of doctors in the country. One of the most successful measures was the compulsory

contract established in 1972 with new medical graduates to perform three-years of clinical service in public facilities in rural areas (Tangcharoensathien *et al*., 2013). These new doctors in the early 1970s faced many difficulties in running the hospitals, both financially and administratively. In 1978, with pressures mounting, rural doctors eventually established a society of their own, called the 'Rural Doctor Society', which soon evolved itself to the 'Rural Doctor Foundation' (RDF) in 1980. The RDF gathered doctors with a similar spirit and created a learning platform for them to support and learn from each other. RDF soon became accepted by all health professionals and also in the wider public for its active role in supporting more equitable health policies and serving as a watchdog to counteract corrupted and inappropriate government measures (Wibulpolprasert and Pengpaibon, 2003).

Amongst several members of the RDF, there were some doctors (like the three case studies above), who had spent far longer than the three-years contract in rural areas, and their long-term commitment, charismatic leadership, and intellectual and social capitals had led to a number of initiatives that helped promote quality of life of the local population.

Discussion

In periphery of Thailand, it is clear that the establishment of health centres and district hospitals is a key factor to the success of bringing 'health' and 'well-being' to people in hardship areas. The DHS, a network of health centres and a district hospital, is an

important structure under the concept of promoting primary health care as recommended by the WHO since 1982. The DHS requires committed health teams to provide comprehensive essential health services (e.g. curative care, rehabilitation, health promotion, disease prevention, palliative care, long term care etc) to respond to health need of people in communities. To provide such function, the multidisciplinary health team is needed.

Though it is widely accepted that doctors are always the key player of the team. It is unarguable that doctors alone are not enough. The team needs other health cadres, such as dentists, pharmacists, nurses, health technical officers, physical therapists, Thai traditional medicine practitioners, dental nurses, health care workers, community health workers and pharmaceutical assistants. Some international literature also corroborated the importance of engaging non-professional health workers into the health team, such as Taplin *et al* (2013), Herman (2011) and Simmonds (2001).

The team is not limited to health professionals, as it needs to garner support from communities as well. This point was exemplified in the three case studies above, for example, the establishment of legal clinic in Tak with support from NGOs and academics.

The role of transformational leadership here is important. The researchers found that leadership does not come from thin air but it requires a long-term commitment and continuous learning. One may argue that leadership is 'nature' and these case stories are exceptional examples. The researchers argue that it is nature that can be 'nurtured' and 'empowered' and can be emerged at all levels.

Though the above examples focus on medical doctors. The researchers assert that if one explores at the micro-level, other health cadres including supporting staff might present some characteristics of leadership in their routines. This suggestion was supported by some international literature, such as Reich *et al* (2016) and Bobbio *et al* (2012).

There are some common characteristics of leadership identified in this study, that is, (1) establishing a vision, (2) influencing others to share and own that vision, (3) providing reasoning for why and how things must improve and (4) leveraging the skills and resources provided by those working alongside the leader. The above case studies also show that openness of vision of leaders is important as these leaders had to look beyond the health sector to identify baseline needs of the population and alleviate the burden of disease and improve universal coverage through focusing on economic and legal security. Using multidisciplinary health teams that were sensitized to these social determinants, enables the leaders to contribute to sustainable development of these communities through various initiatives. Key ingredients in their success in making these initiatives effective is rooted in the leader's ability to work across sectors through their social and intellectual credit, long-term commitment to the work, familiarity with communities, and the ability to motivate allied health professionals.

This study still experienced some weaknesses. Firstly, with limited number of cases, it might not have a strong generalisability power. One should be heedful in applying the results from this study

to other settings. Secondly, most information of this study was obtained from document review. Though there were some interviews, these were not used as the main data collection technique but performed as a supplement to document review. This might have implication for future research. More studies about the successes and challenges (or even failures) of leadership conducted through various data collection techniques are needed. Lastly, regarding reflexivity (role and experience of researchers on data construction and analysis), as the researchers have been engaged with some initiatives of rural doctors for a while, it is very likely that the researchers might have positive bias towards the accounts from the field. However, the good relationship between the research team and participants might render some benefits to the study in terms of openness of the participants in sharing their genuine opinions with the researchers.

Conclusion

The article presents the evidence from Thailand's experience regarding how transformational leadership plays an important role in establishing well-performing health teams. Normally, medical doctors are the leader the health team in the District Health System, a primary care network in all districts in the country, serving as a firm basis for achieving Universal Health Coverage. A health team, comprising both health professional and non-professional staff, with a committed leader, has been proved successful in providing comprehensive health service and improving well being of the

population in the communities. Support from non-health sector, including civic groups or community leaders, is vital component for the success. This proves that though leadership is 'nature' that can be 'nurtured' and 'empowered' at all levels of health system.

Ethics approval

The study was conducted as a part of routine program assessment. Hence, the Ministry of Public Heath, Thailand and the hospitals waived the ethical clearance. Informed consents were sought and protection of confidentiality was strictly followed.

Competing interest

Declared none

Funding support

From International Health Policy Program's core resource

Authors' contribution

WP and RS contributed significantly in the study design. WP, RS, AT, TN, VW and YT did literature review and prepared the first draft; all reviewed and provided inputs to the draft; WP, RS, AT, TN and VW involved in data collection; WP, RS and YT did data analysis. All authors read and agreed upon manuscript.

Acknowledgement

The authors wish to express our sincere gratitude to health staff of the three district health systems who have committed and contributed significantly in their communities. We thank Ms Dena Javadi for her kindness in providing the literature related to transformational leadership and her support to this article.

References

Bobbio, A., Bellan, M. & Manganelli, A.M. (2012). Empowering leadership, perceived organizational support, trust, and job burnout for nurses : a study in an Italian general hospital. **Health Care Manage Rev,** 37, 77-87.

De Francisco Shapovalova, N., Meguid, T. & Campbell, J. (2015). Health-care workers as agents of sustainable development. **The Lancet Global Health,** 3, e249-e250.

Herman, A.A. (2011). Community health workers and integrated primary health care teams in the 21st century. **J Ambul Care Manage,** 34, 354-61.

HFOCUS. (2015). **Five years passes by : Stateless insurance, a funding for second class population? (Chapter 1).** Nonthaburi : Thai Health Reform Foundation. Available : http ://www.hfocus.org/content/2015/04/9809 [Accessed 14 November 2015].

HRDO. (2010). **Pee Sue Ka Yub Peek.** Nonthaburi : HRDO/Thaihealth Foundation. Available : http : //resource.thaihealth.or.th/library/hot/12516 [Accessed 15 March 2016].

Jongudomsuk, P., Srithamrongsawat, S., Patcharanarumol, W., Limwattananon, S., Vapatanavong, P., Sawaengdee, K., *et al*. (2015). **The Kingdom of Thailand Health System Review (Health Systems in Transition, Vol. 5 No. 5 2015),** Geneva, WHO.

PTT Public Company Limited. (2007). **The 9th Green Globe Award** [Online]. Bangkok : PTT Public Company Limited. Available : http://pttinternet.pttplc.com/greenglobe/2550/personal-02.html [Accessed 6 January 2016].

PTT Public Company Limited. (2011). **Tambon Tungpong, Ubolrat : mustering development for sustainable self reliance** [Online]. Bangkok : PTT public Company Limited. Available : http : //www.84 tambonsforking.com/content/library/70-File2.pdf [Accessed 6 January 2016].

Reich, M.R., Javadi, D. & Ghaffar, A. (2016). Introduction to the Special Issue on "Effective Leadership for Health Systems". **Health Systems & Reform,** 2, 171-175.

Robbins, B. & Davidhizar, R. (2007). Transformational leadership in health care today. **Health Care Manag (Frederick),** 26, 234-9.

Saisoonthorn, P., Uthaisin, C., Tantiwattanasub, W., Yingtaweesak, T., Somchaimongkol, S., Napaumporn, B., *et al*. (2015). **Proposals to Public Health Minister in Mananging Rights to Public Health Care for Stateless/Nationalityless People or People with Citizenship Problems.** Bangkok : Bangkok Clinic, Thammasat University.

Simmonds, S., Coid, J., Joseph, P., Marriott, S. & Tyrer, P. (2001). Community mental health team management in severe mental illness : a systematic review. **Br J Psychiatry,** 178, 497-502; discussion 503-5.

Tangcharoensathien, V., Limwattananon, S., Suphanchaimat, R., Patcharanarumol, W., Sawaengdee, K. & Putthasri, W. (2013). Health workforce contributions to health system development : a platform for universal health coverage. **Bulletin of the World Health Organization,** 91, 874-880.

Taplin, S H., Foster, M.K. & Shortell, S.M. (2013). Organizational Leadership For Building Effective Health Care Teams. **Annals of Family Medicine,** 11, 279-281.

United Nations. (2015). **Sustainable Development Goals** [Online]. New York: United Nations. Available : http : //www.un.org/sustainable development/sustainable-development-goals/ [Accessed 15 March 2016].

Wibulpolprasert, S. & Pengpaibon, P. (2003). Integrated strategies to tackle the inequitable distribution of doctors in Thailand : four decades of experience. **Human Resources for Health,** 1, 12.

World Health Organization. (1978). **Declaration of Alma-Ata : International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978** [Online]. Geneva : WHO. Available : http : //www.who.int/publications/almaata_declaration_en. pdf [Accessed 15 March 2016].

World Health Organization. (2015). **Executive Board document 138/36 Health workforce and services - Draft global strategy on human resources for health: workforce 2030** [Online]. Geneva: WHO. Available: http://apps.who.int/gb/ebwha/pdf_files/EB138/B138_36-en.pdf?ua=1 [Accessed 15 March 2016].