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Establishing and implementing a health promoting school in rural Cambodia

**DR KRISTIANN C HEESCH,^{1,2*} DR ERIKA HEPPLER,³ DR KAELEEN DINGLE^{1,2}
and MS NATASHA FREEMAN¹**

¹School of Public Health and Social Work, Queensland University of Technology, Victoria Park Road, Herston, QLD 4059, Australia.

²Institute of Health and Biomedical Innovation, Queensland University of Technology, Victoria Park Road, Herston, QLD 4059, Australia.

³School of Teacher Education and Leadership, Faculty of Education, Queensland University of Technology, Victoria Park Road, Herston, QLD 4059, Australia.

**Corresponding author. Email: k.heesch@qut.edu.au*

Email: k.heesch@qut.edu.au (KC Heesch), e.hepple@qut.edu.au (E Hepple), k.dingle@qut.edu.au (K Dingle), tash_freeman@hotmail.com (N. Freeman)

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SUMMARY

Few studies have used a whole-of-school approach in implementing a health promoting schools (HPS) framework. Descriptions of how HPS is being implemented, particularly in low-resourced, developing countries, are limited. This study used an exploratory case study design to examine the planning and implementation of a HPS in a rural Cambodian village. Data were collected via observations of the school, school documentation, and interviews with stakeholders (n=9). The data were analysed inductively as an iterative process, from initial coding, through to categorising, leading to concept mapping and then identifying the emergent themes within the stages of school development and implementation of educational and health programming. The case study demonstrated how all six components of the HPS framework can be used to plan and implement a school in a rural village in a developing country. The key elements of implementation were building local and international partnerships, local leadership, and a culture of change and participation. These elements were used to establish a non-profit school that aimed to address the stated health and educational needs of local villagers. This case study adds to the limited evidence on the HPS components and implementation methods that are being applied in low-resourced, developing countries.

INTRODUCTION

Schools are ideal health promotion settings as they provide opportunities to implement strategies to improve the health and well-being of students, staff and the wider community (Gugglberger and Inchley, 2014). Evidence on the effectiveness of school health promotion programs and the links between health and education continues to grow (Turunen *et al.*, 2017). Less evidence though is available on the factors that make for successful implementation of school health promotion programs (Turunen *et al.*, 2017), particularly in developing countries.

To date, few studies have evaluated the implementation of school health promotion programming in developing countries, especially those in a post-conflict phase (Yoshimura *et al.*, 2009), such as Cambodia. The few existing studies indicate ongoing difficulties arising from funding issues, top-down managerial approaches, and structural separation between key stakeholders. Takeuchi *et al.* (2013) revealed that funding and lack of basic equipment were the key impediments to the success of school health programs in Niger Tahoua. Duijster *et al.* (2017) reported a large variation in the implementation of a school-based water, sanitation and hygiene program to increase child health in Laos PDR, Cambodia, and Indonesia. Poor implementation was attributed to issues with low program compliance by school management. Challenges to compliance were also evident in another study conducted in Laos PDR, where a majority of schools considered school health a low priority (Saito *et al.*, 2015). These studies demonstrate the importance of understanding the factors that influence implementation of school health programs in developing countries like Cambodia.

Health and education in Cambodia

Evaluation of how school health programming can be successfully implemented in Cambodia, particularly in rural areas, is needed. Cambodia is one of the world's least developed countries, ranking 146 out of 189 (United Nations Development Programme, 2018). In 2015 life expectancy at birth was 67 years for men and 71 years for women (World Health Organization [WHO], 2018a). The main causes of death are communicable, maternal, perinatal and nutritional diseases (37%) (WHO, 2018b).

Of a population of 16 million in Cambodia (United Nations Development Programme, 2018), 77% reside in rural areas (National Institute of Statistics [NIS], 2016). Most measures of health status in Cambodia indicate that the health of children in rural areas is worse than the health of children in urban areas. For example, mortality rates of children aged <5 years are higher in rural areas (52 deaths/1000 live births) than in urban areas (18 deaths/1000 live births), and babies born in rural areas are more likely to be born with a low birth weight (12%) than are babies born in urban areas (9%) (NIS and ICF International, 2015).

Cambodia continues to be negatively affected by several decades of war and civil war, most notably during the 1975-1979 period of Khmer Rouge rule under Pol Pot. During that period, Cambodia land was mined; schools were destroyed; teachers were killed; and formal education ceased. Most health service infrastructure was destroyed. Reconstruction in Cambodia continues, and, as a result, national poverty levels have fallen from 48% in 2007 to 14% in 2014 (World Bank, 2018). However, imbalances and inequities between urban and rural development remain to the detriment of the rural population (NIS, 2016).

Cambodia depends upon overseas aid for pursuing educational development, with this sector receiving US\$125.7 million in 2012 (Cheng, 2015). To affect educational change and build

capacity, the Royal Government of Cambodia works with development agencies and non-government organisations (NGOs) (Marshall and Suarez, 2014; Suarez and Marshall, 2014): for example, 80 NGOs representing 250 educational projects were recorded in 2008 (NGO Education Partnership, 2009). This aid assists the Cambodian Ministry of Education, Youth and Sports to improve education quality and integrate Education for Sustainable Development into its national curriculum (UNESCO, 2017). While a range of funded projects targets key educational issues (Ministry of Education, Youth and Sport, 2017), there remain concerns about teacher qualifications, teacher salaries, and current approaches to teaching and learning (Cheng, 2015).

The Health Promoting Schools Framework (HPS)

A framework for integrating health promotion into school settings is the Health Promoting Schools (HPS) framework (St Leger, 1999; WHO, 1997). It also provides a lens through which to examine the implementation of programming designed to enrich learning and health (St Leger *et al.*, 2008) and includes six key components for promoting and protecting the health of school communities (Stewart-Brown, 2006; St Leger *et al.*, 2008; WHO, 1997). These are: school policies that promote health and well-being; a physical environment that supports education and health; a social environment that encourage healthy relationships among school community members; a school curriculum that enhances student knowledge and skills to competently take action to improve their health and overall learning; community links through consultations and partnering with outside organisations and with families of students to support health-promoting activities; and links with health services that provide health care and health promotion to students (IUHPE, 2009).

Evidence from developed countries suggests the potential of using the framework to enhance educational outcomes, improve health and quality of life, reduce the burden of disease and improve economic prosperity (Kremser, 2010; Macnab *et al.*, 2014; Moynihan *et al.*, 2016; St Leger *et al.*, 2008; Stewart-Brown, 2006; Turunen *et al.*, 2017). There is also evidence of success in improving health outcomes in developing countries (Macnab and Kasangaki, 2012; Yuasa *et al.*, 2015). Literature is limited, however, on how health promoters implement HPS strategies (Hung *et al.*, 2014), particularly in low-resourced countries like Cambodia. Documenting the implementation process used by communities can provide guidance for similar communities and change agents elsewhere.

Research aim and context

This study explored the planning and implementation of one HPS in a rural village in the northwest of Cambodia and shows how HPS components can be applied in a post-conflict, low-resourced country. The village is in the province of Siem Reap, approximately 25 km outside the city of the same name. The median years of education completed by residents of Siem Reap Province is 2.2 years, and 26% of the population have no formal education (NIS and ICF International, 2015). Only 15% of children aged <5 years in the province attend early childhood education, and the mortality rate for children aged <5 years is high: 56 deaths/1000 live births (NIS and ICF International, 2015). Data for the village under study were not available, but at the time of the interview, the school's director described the village of approximately 600 families as having no electricity and few homes with indoor plumbing. Many other rural villages in Cambodia have similar conditions.

According to the director, the village primary school children attend a local government school, and older children attend a school that requires a 1-hour commute by bicycle. Schools

are in session for half a day each weekday. Village children receive from these schools little instruction in English language or vocational training. Pathway School (a pseudonym), was established as a non-profit school by the director, a local villager, for students to attend during the half-day when they are not at a government school. The director said he sought to complement the learning in the government schools with free daily classes in English-language education and computer skills training. The director also reported that English-language communication skills are critical for getting jobs in the tourist industry in Siem Reap, which has been noted by others (Morrow, 2015).

Like government schools, Pathway School must adhere to the policies and regulations of the Ministry of Education, Youth and Sport (Ministry). It receives no government funding and is not part of a wider non-government school system. The school's director reported that the school had 15 staff, 12 teachers plus three who worked in management. According to the school's administrator, at the time of the field work for this study (2016) the school catered to approximately 700 students aged 5-17 years and young adults aged 18-25 years. Most (about 90%) lived in the closest village; the remainder lived in the next two closest villages.

METHODS

This project used an exploratory case study design that applied qualitative research methods to understand why and how the HPS framework was used. Observations and interviews at Pathway School were completed during field visits in February, 2016. These were complemented by reviews of policy documents, reports and school working documents provided by staff and the leadership team as well as by internet searches and by interviews conducted in Australia later in 2016 with additional members of the leadership team.

Observations were guided by a 65-item checklist with acceptable reliability for use in developing countries (Yoshimura *et al.*, 2009). The checklist was used in Laos (Yoshimura *et al.*, 2009), and later, in a 59-item version, in Thailand (Akiyama *et al.*, 2013). The checklist indicated qualities of the school environment for the research team to observe. Items covered the six essential components of the HPS framework (WHO, 2009). Unlike in previous work, the checklist was used to guide qualitative observations of the setting rather than to create a quantitative score. Members of the research team each separately recorded in their field notes their observations related to the content of the checklist, and then met to reach consensus about what was observed.

Semi-structured 28-45 minute interviews were conducted with members of the school's leadership team (the school's director, the co-director, and the administrator) and two school health educators and four international volunteers. Purposive sampling, a qualitative sampling method, was employed: the individuals who would be expected to have the knowledge sought were interviewed. Of these, we interviewed the individuals who spoke English and were available to be interviewed. We met with most interviewees twice: once for the interview and a second time for the interviewee to confirm or correct our notes and transcripts from the first interview. Although interview questions varied across interviewees to account for their differing roles at the school, interviewees were each asked to discuss their roles in the development and implementation of the school, their current roles, the major successes and challenges with implementing and maintaining the school, and relationships between the school and the local villages. Interviewees were also queried about topics covered in the checklist that required stakeholder input (e.g., whether students engage in various health behaviours like washing their hands before eating). Two members of the research team conducted each interview. One led the asking of questions, and the other took notes and

asked probing questions as deemed appropriate. Interviews were audio-recorded and then transcribed. Pseudonyms were used to protect the identities of the organisations and individuals involved. In 2016 and 2017 we asked two members of the school leadership team and the administrator to review the results presented in this paper, to check for accuracy of the reporting and to fill gaps in the description. Their feedback was integrated into the results.

This study deployed an integrated approach to qualitative data analysis, as suggested by Bradley *et al.* (2007). We began by applying the principles of an inductive approach. The data were analysed inductively as an iterative process, from initial coding, through to categorising, leading to concept mapping and then identifying the emergent themes (King and Horrocks, 2010; Simons, 2009). These emergent themes were then deductively applied to the HPS framework. As Bradley *et al.* (2007) noted, the value of this approach is that it offers clarity in defining and understanding diverse and complex phenomena within the field of health.

FINDINGS

The development of the school was divided into three overlapping stages, which are discussed below and summarised in Table 1.

[INSERT - TABLE 1 Stages of Pathway School's development - here]

Stage A: Local champion establishes partnerships and secures funding

Stage A began with a local champion establishing local and international partnerships. The local champion was Raksmei (a pseudonym), a resident of a rural village in Siem Reap Province. In 2007 he collaborated with a fellow Cambodian to start his first English-language non-profit school in another village. He had a high school education, but his English language

skills were largely self-taught. For 2 years, he oversaw the volunteers at that school and conducted in-house English-language teacher training.

That first school experience provided Raksmei with local and international collaborations (Activity 1, Table 1). Namely, two fellow Cambodians who had worked with Raksmei, as well as one Dutch and four Australian volunteers at that school, had agreed to support Raksmei in establishing a new non-profit school, Pathway School, in his own village. These partners brought skills in English-language teaching, administration, nursing, community development, sport coaching, and accounting practices. Raksmei and one Australian partner (Robin, a pseudonym) spearheaded the detailed planning for Pathway School and travelled to Australia in 2009 to register Resources Cambodia (a pseudonym) as an Australian-based charity that would provide funding to cover most monthly school expenses (Activities 2-3, Table 1). After the trip, a leadership team that consisted of Raksmei, Robin, and the two Cambodian colleagues was established (Activity 4, Table 1). In addition to becoming an active member of the village community, Robin began to provide direct guidance and support to school staff and students, participate in all school programming, oversee all aspects of school financing, and coordinate activities with international partners.

The next links to be made were with elders of the village in which Pathway School would be situated. The elders expressed their desires that the school augment the education of local village children and address the health needs of the community. Until the establishment of Pathway School, most village children received a primary school education only, and no health professionals were employed full-time in the village. The leadership team agreed with the requests of the elders, and since this early discussion, the team and elders from the school's catchment area (the three closest villages) have worked together on increasing the

school's ability to improve education and health within the villages. The partners agreed that the school was going to complement, not replace, the education taught in the government school. The leadership team also opened communication channels with the local government schools to coordinate schedules; with village elders and the local government schools about Pathway School student enrolments; with the police, to allow international volunteers to come to Pathway School; and with the Ministry of Education, Youth and Sports, which regulates all Cambodian schools (Activity 5, Table 1).

The next step was to secure a physical location for Pathway School. Raksmei was able to secure land from his family, but had to agree to give the land to the government to receive governmental approval to build the school (Activity 6, Table 1).

In 2010, two Australian partners formally launched Resources Cambodia as a charity (Activity 7, Table 1). With Robin, they also coordinated international volunteers coming to the school (Activity 8, Table 1). One Australian partner was a primary school teacher with additional experience and formal education in international community development, and she wrote curriculum materials to reflect the local context (Activity 9, Table 1). Although the Ministry provided government schools annually with English-language textbooks, the Australian primary school teacher indicated that these resources and the teaching of English in the government schools were insufficient to develop students' English language literacy.

Help with finances of the school came from an Australian accountant with experience working for non-profit organisations in Southeast Asia. He volunteered his services as chief financial officer and made regular visits to the school. Links with individuals from other countries also resulted in funding (Activity 11, Table 1). For example, a Dutch international

volunteer coordinated with two established NGOs, to collect funds in his country and distribute them to Pathway School.

The initial funding from international donors supported the building of basic infrastructure (Activity 12, Table 1). The funding also supported the building of health-promoting spaces, including a children's play area, a soccer field, shaded areas, a separate boy and girl toilets, hand washing stations, waste disposal and drainage systems, and water drinking stations. In addition, a school library was built to establish the social practice of borrowing books to take home to read, a practice that was not in place in government schools at that time.

Occupational health and safety policies for the school were established, including an enforced no smoking policy, child protection policies and a policy that all children from the local villages would have access to a free education at the school (Activity 13, Table 1).

Stage B: School opens and establishes teacher training and sponsorship programs

Stage B started with the opening of Pathway School. In 2011, the school began to provide one-hour English language classes daily to children from primary school up to young adults in their early 20s. In 2012 this was extended to include daily one-hour computer classes, twice weekly one-hour art classes, and daily opportunities to play on a girls' or boys' soccer teams (Activity 14, Table 1). The Australian primary school teacher reported that, unlike in the government schools, the school curriculum used an activity-based, interactive pedagogy. Observations at the school and, in prior field work by a member of the research team, at the local government school showed that the government school relied on rote-learning, whereas Pathway School adopted a more communicative language teaching approach that was interactive and task-based. The Australian primary school teacher also reported that after the introduction of this approach at Pathway School, the government official for the local

province invited Pathway School leaders to run a teacher training program to introduce these methods to government school teachers.

The explicit aim of the leadership was to offer a caring social environment promoting student-centred learning and a positive school culture (Activity 14, Table 1). Observations at the school supported the accomplishment of these goals: teachers were using interactive approaches, and the children were seen to be engaged in activities.

For training teachers, the school established a capacity-building model. Trainee teachers were usually teachers studying at government high schools although later some older Pathway students joined the trainee programming. The trainees and full-time teachers received regular teaching training and sponsorships to complete high school or attend university (Activity 15, Table 1). As paid positions became available, some trainees moved from volunteer to paid positions. By 2015, all Pathway School's teachers were full-time paid teachers who had transitioned from trainee positions.

Stage C: Health focus added

Stage C started with the integration of health services and health education into Pathway School in 2012. According to the director, health was not within the curriculum at government schools, and before the establishment of Pathway School, no health professionals were employed full-time in the village. Stage C started when a Pathway School trainee teacher collaborated with an Australian paediatric nurse to conduct a health needs assessment with local villagers and to meet with village elders, with the intention to build the school's profile, gain the trust of the village community, and understand villagers' health priorities (Activity 16, Table 1). The Australian paediatric nurse and a member of the leadership team

also made connections with NGOs that had developed health education resources in the local language. From these NGOs, they sought not only to gather resources for the school but also to fill gaps in their expertise and to learn how to implement best practice for health promotion locally.

According to the nurse, findings from the surveying of the local villagers and her discussions with elders suggested that hygiene-related diseases were prevalent among staff, students and the local villagers. Poor hand-washing habits, which had been indicated in the data, was seen as a possible cause. As a result, hygiene classes for students were integrated into the school in 2012 (Activity 18, Table 1). In 2013, when the hygiene teacher left and a trainee teacher who showed potential to teach health was re-assigned to replace her, hygiene classes were replaced by workshops taught by the trainee teacher. The trainee teacher was trained by the Australian paediatric nurse and a Swiss volunteer to teach the workshops (Activity 19, Table 1). Students in an English-language class attended a hygiene workshop together on a rotating basis with each class of students attending a workshop every 2 to 3 months. In the workshops students were instructed on the use of water filters and on personal cleaning (of skin, head, hands, teeth and eyes). In 2015, a second local villager was hired to be a health educator, to help with the workload.

Data collection by the paediatric nurse also revealed that villagers were keen to self-manage minor injuries and illness. Barriers to seeking care at the nearest hospital included a long distance over poor roads and costs for transportation. Also, Pathway School staff reported to the director that they wanted to learn how to manage first aid. Consequently, another Australian nurse and an Australian teacher volunteered to conduct first aid training for school staff during school visits in 2013 (Activity 19, Table 1). During a later visit the Australian

paediatric nurse conducted a refresher course for the staff. The school also partnered with a non-profit hospital in Siem Reap to allow five Pathway teachers, including the health educators and the school administrator, to be trained in first aid at the hospital (Activity 19, Table 1). The health educators were also trained in hygiene there.

The next step in integrating health into Pathway School was the building of an on-site health clinic (Activity 20, Table 1). A physical space for the clinic was built, and supplies to stock the clinic were purchased. The health educators began providing advice and treatment for minor illnesses and injuries for free to students and villagers. The Australian paediatric nurse set up a clinical records system to record all clinical visits. More severe illnesses or injuries were referred to the nearest hospital. To encourage the most disadvantaged of the village to seek the health care they needed, money was budgeted from the school to pay for travel costs to health services in Siem Reap. The costs of offering these services and the continued training of staff were covered by Resources Cambodia and other charities.

An addition to the health care clinic at Pathway School was a dentist office (Activity 21, Table 1). A well-funded Taiwan dental group of volunteers that was offering dental services to local villagers before the construction of Pathway School built an annex to the clinic and stocked it with dental supplies and equipment. For 1 to 2 days, three to four times each year, dentists from the group began to come to the annex to offer free dental care to school staff and students and to local villagers, as well as to offer oral hygiene classes to students.

In 2014, the leadership team created the Community Health Promotion Project to build further trust and connections with villagers. The goal was to provide health education for specific health needs (Activity 18, Table 1). Workshops on hygiene and first aid were offered

to villagers to complement the workshops offered to students. Before starting the workshops, the Australian paediatric nurse and a school health educator went door-to-door to invite villagers to attend. Attendees were provided an incentive to attend: a water filter for the water that they brought into their homes from wells or pumps. A benefit of this project, reported Raksmei, was that villagers came to view the school positively as an agent of change. In total, 30 to 50 villagers had attended each workshop. The health educators reported that they were assigned to visit the homes of villagers who had attended a workshop, to assess the functioning of the water filter and provide guidance in its use. They also encouraged villagers who had not attended a hygiene workshop to do so.

DISCUSSION

This paper reports on the establishment of a HPS in rural Cambodia. It highlights a grassroots approach to implementing all six components of the HPS framework in a low-resourced area. Stewart-Brown (2006) suggests that HPS programs are more likely to succeed if they include strategies across multiple components of the framework, but no previous papers have reported on programs that adopted all HPS components (Stewart-Brown, 2006; Turunen *et al.* 2017). Key elements to implementing the framework in our case study included: building local and international partnerships, building local leadership, and developing a culture of change and participation.

Partnership-building was critical to getting the resources, both physical and human, to establish the HPS. The school leadership team built partnerships with village leaders, government, NGOs and both Cambodian and international volunteers, to respond to the health and education needs that they saw in the village. This multidisciplinary approach to collaboration is a major enabler to successful HPS implementation (Hung *et al.*, 2014).

Partnerships with village leaders were important for creating a school that met village needs. Partnerships with organisations and individuals outside the local village were critical for gaining relevant expertise and funding that was not available locally. Critically, these partnership required regular communication. As reported by others (Gugglberger and Inchley, 2014; Hung *et al.*, 2014; Moynihan *et al.*, 2016), successful implementation of health promotion in schools requires commitment and collaboration from all partners inside and outside the school and these partnerships require on-going communication.

Another key element to implementing the HPS framework was the building of local leadership. It has previously be documented that good school leadership is important for successful implementation of the HPS framework (Hung *et al.*, 2014; McIsaac *et al.*, 2015). The current study extends these findings by showing that a supportive school leadership team can develop leadership at different levels of a school through working collaboratively with, and offering training to, local people. Village residents were trained to become teachers whose responsibilities at the school expanded once they showed potential to take on leadership roles at the school. The health educators were villagers who showed aptitude for taking on health education roles and thus received trained to be health educators and begun spearheading health promotion activities. The administrator was a Cambodian who was trained by the director to take on the directorship at retirement of the director. The training of these individuals at different levels in the school allowed the school to continue operating when the director retired, which occurred shortly after our research field work finished.

The third key element to the implementation of the HPS framework was creating a culture of change and participation. Others have found a sense of ownership and participation to be important to successful HPS implementation (Hung *et al.*, 2014), including in Uganda, a low-

resourced developing country (Macnab and Kasangaki, 2012). In the current case study, local villagers initially participated in the development of the school through regular meetings of village elders with school leaders. The elders were keen from the beginning to have the village children being able to converse in English. As noted by the director, this skill could potentially lead to job opportunities outside the local village, as the tourist industry expanded around Siem Reap. Participation of the elders then continued, with regular, direct input into the teaching and running of the school. This involvement of villagers may have created a culture of change and a sense of participation in local affairs that benefited both the school and village. For example, village elders wanted the school to address health and hygiene of villagers. To meet this need, teachers were trained in health education and hygiene to take on health education roles and to provide basic first aid. As a result, children were provided knowledge and skills training in basic hygiene, and basic health care was provided at the school to villagers. Pathway School also expanded the teaching of hygiene to the local villagers directly with hygiene workshops and the supply of water filters for home use; these activities allowed villagers to directly interact with school staff and as a result, reported the school director, come to view the school positively as a change agent.

Strengths and limitations of this research should be acknowledged. A key strength was that the main studied group were members of the leadership team, including the chief administrators at the school. This group is rarely studied in school health promotion research (Turunen *et al.*, 2017), but hearing from members of this group was critical to understanding how and why the HPS was established and has continued. Our access to this group and to the school more generally was only possible due to a trusting relationship that had developed between one of the researchers and members of the leadership team before this research was conducted. This researcher was a teacher educator and had originally contacted the school to

volunteer her services during one of the school's regularly scheduled professional development programs for teachers. The researcher then followed this up with a number of trips to the school over a period of 2 years as a volunteer, building a long-term relationship of mutual respect with the members of the leadership team. Another strength was the use of multiple data collection methods: document review and observations along with interviews. A limitation was that, due to cultural considerations and issues with English-language competency, we were unable to interview other school stakeholders (e.g., parents, villagers) during the field trip. We were also limited to conducting field work at one time period and thus unable to observe changes in the school over time. We also did not collect quantitative data that would have allowed us to assess changes in health and educational outcomes.

Given these limitations, we recommend that future research in Cambodia consider training local people who speak the local language to conduct data collection with a wider range of stakeholders than we were able to interview. Local people could also be tasked with conducting observations and interviews over time, to document changes. Notably, these activities are only possible after researchers have built a trusting relationship with a Cambodian school and local residents. For the current project, the research team is exploring the teacher training process instituted at Pathway School, to inform other educators in the non-profit sector. An important next step is then documenting processes for sustainability and the long-term viability of the school.

Conclusions

This case study shows how all components of the HPS framework can be used to establish a non-profit HPS in rural Cambodia when funding and expertise from developing countries are available. It further shows how partnerships among a local champion, village elders,

government, NGOs, and local and international volunteers can be developed to establish a HPS tailored to local health and educational needs. The school has gone through three growth phases followed by a transition in leadership from the initial local champion to a new director, and through these changes, the partnerships and HPS model have been maintained.

This case study adds to the limited evidence on the HPS components and implementation methods that are being applied in low-resourced, developing countries. It documents the importance of external funding and expertise. It is novel in that it explores how the HPS framework can be used from the initial development of a school through multiple phases of implementation. It also illustrates the use of innovative methods in leadership development within a non-profit school to build the capacity of its teachers and in addressing the stated health care needs of the local community, to reduce health inequities within and beyond the school community.

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Table 1. Stages and activities of Pathway School's development

Stage	Pathway School activities in chronological order	Components of the Health Promoting School framework that Pathway School activities map onto
A: Local champion establishes partnerships and secures funding, 2007-2011	1. Collaborations with Cambodian and international partners	Community links ^a
	2. Details plans to establish School	Community links ^a
	3. Register charity for financial support to School	Community links ^a
	4. Establish School leadership team	Community links ^a
	5. Begin regular consultations with community and government groups	Community links ^a
	6. Donate land to government, in order to build on a local site	Physical environment ^b
	7. Charity launched to start international fundraising activities	Community links ^a
	8. International volunteers start arriving	Community links ^a
	9. English-language curriculum, materials and textbook written	Curriculum ^d
	10. Partner with Australian accountant to oversee finances	Community links ^a
	11. Establish new international partnerships to increase international funding	Community links ^a
	12. Build basic and health-related infrastructure	Physical and social environment ^{b,c}
	13. Create health-supporting and equity policies	Healthy school policies ^e
B: School opens and establishes teacher	14. School begins to offer classes to students with focus on activity-based, interactive	Curriculum and ^d Social environment ^c

training and sponsorship programs, 2011	pedagogy and positive discipline approach 15. Local villagers began to be trained as teachers and administrators and provided scholarships to further their education.	Community links ^a and Social environment ^c Social environment ^c
C: Health focus added, 2012-2014	16. Needs assessment conducted in local villages and consult with village elders 17. Link with other NGOs in Cambodia 18. Offer health education on hygiene and first aid to students and villagers 19. Train Pathway teachers and staff in health education and basic health services 20. Built a health clinic offering free services 21. Build dentist office with free services and oral hygiene classes from international partners	Community links ^a Community links ^a Curriculum ^d Community links ^a and Health services ^f Physical environment ^b and Health services ^f Community links, ^a Physical environment ^b and Health services ^f

The Pathway School activities are mapped onto the six components of the Health Promoting Schools framework (St Leger *et al.*, 2008; IUHPE, 2009; WHO, 1997).

^a community links through connections and partnerships with outside organisations, families and community leaders to support health-promoting activities at the school

^b a physical environment that strives to support education and health

^c a social environment with social ethos that supports positive learning and strengthens healthy relationships among the school community

^d a curriculum that enhances student knowledge, understanding and skills and enables them to make healthy choices and adopt healthy behaviours

^e implementation of healthy school policies that promote health and well-being within the school community

^f links with health services that provide health care and health promotion to students and the community