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The “Establishing Family Medicine in Chiang Rai” Project

Third Report February 2015

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I. BACKGROUND

Family Medicine was introduced as a medical specialty in Thailand around 2000. The implementation of family medicine in the healthcare system was driven by the Ministry of Health (MOH) and spread across the country in a ‘top-down’ fashion. Except for a few prominent academic institutions in the country, however, many healthcare facilities are struggling to establish family medicine as an independent discipline. This is despite a huge push from the central government utilize family medicine as a vehicle to deliver cost-efficient primary care to the entire population of Thailand.

In Chiang Rai provincial hospital (CRH), the family medicine unit was organized with the recruitment of Dr. Intralawan to the hospital’s primary care unit (PCU) in 2010. Since 2014, two residents have been accepted to the family medicine residency program in the hospital. The training is currently exclusively practice-based. The first year serves as a general rotating internship at the provincial hospital, followed by working in the district hospital in the 2nd year, and 3rd year training is at PCU at CRH. The content of training and curricula for residents is not standardized and it depends exclusively on the various subspecialty attending physicians they encounter during their site rotations. For their 3rd year, they are seeing up to 150 patients at the PCU daily. They are overwhelmed by the sheer volume of patients and education/precepting is left behind as a luxury due to their busy practice. In addition, there are research requirements on top of this busy patient load. Prioritization of the implementation of a structured education program is essential for further development of family medicine as an independent specialty at CRH. The first cohort of 2 residents will be graduating from the program in June of this year.

As the first cohort of the resident class is graduating later this year, CRH administration and core faculty members in family medicine strongly believe that it’s time to launch an independent family medicine department. This department will autonomously provide and teach integrated, patient-centered care and implement a curriculum defining the uniqueness of the Chiang Rai program, which is distinguishable from other existing family medicine training programs in Thailand (Appendix 2).

This is our 3rd trip to Chiang Rai in the past 3 years exploring how family medicine principles are adapted into the Thai healthcare system to strengthen primary care delivery. We have also been assessing how we can assist in the training of future family physicians to meet that goal. We have intervened thus far using a 3-tiered approach: village health volunteer training in communities; lectures for residents/students; and case-discussions with family medicine residents to strengthen their medical knowledge.

II. FINDINGS & ASSESSMENT

II-1. Chiang Rai Prachanukhor Provincial Hospital

The UHCMC team met with Dr. Intralawan and nurses from CRH to prepare for an initial visit to Pang Khon village whose PCU has a nurse present weekly, and a repeat visit to Panasawan village, whose PCU is staffed solely by community health workers and community volunteers. Course refreshers were prepared for Panasawan, and new didactics prepared for Pang Khon, based on a verbal needs-assessment conducted with the community health workers. The topics reviewed included accidents/injuries, burn assessment and management, snake bite identification and management, and a new module on antenatal emergencies, was added. In addition 2, third year graduating residents joined the team for the Pang Khon visit.

II-2. Panasawan

The onsite half day training session began with the UHCMC/Chiang Rai Hospital team joining together with the PCU staff in an icebreaker activity using a disease ball game, as well as participant demographics such as age, occupation, children, etc. A ball was passed around to music, and each person was asked to identify what disease they feared, when the music stopped.

For the accident/injury scenario a green stick was used to simulate an extremity fracture sustained in a motorcycle accident. Key points for fracture reduction, stabilization/splinting, direct pressure for bleeding control and hospital transfer were reviewed. This was also done for burns, snake bite assessment and management. A new module covering identification and referral of antenatal emergencies including preeclampsia, bleeding and intractable abdominal pain, was introduced. The group was asked how they treated each problem prior to disease education and management, and all key education points were reviewed. The overall group was broken into 2 smaller groups for the collaborative interaction and re-education. Discussion was facilitated by Dr.

Intralawan with the help of the CRH nurses to encourage active participation and interactive learning.

Approximately 27 PCU staff participated, 3 of whom were community healthcare workers (CHW), the rest, community health volunteers (CHV). Of the volunteers, 14 were women. From the burn workshop, we learned that burns continued to be treated with toothpaste, raw eggs, aloe vera, chewing local herbs into a paste to place on the burn and MSG. While it was known that these methods were not preferred, the group identified that psychologically, applying these items made the patient feel better. The groups did not appear to have retained information of disease management and intervention from the previous workshop.

The antenatal emergencies workshop introduced the warning signs for preeclampsia, as well as bleeding in pregnancy, and intractable abdominal pain. All required hospital referral. Using urine dipsticks to measure for proteinuria was verbally reviewed as there were no test strips available in the clinic. A pregnant volunteer from the community agreed to allow female community health workers and volunteers to practice measuring fundal height.

There was a noted knowledge gap regarding the presenting signs and symptoms of preeclampsia, and all CHWs and CHV were unable to correctly identify landmarks and measure fundal height.

A written participatory evaluation was designed with an indicator for like/dislike with a smiley face, and a comment section for each of the workshops presented. There was 100% “like” indicated, with no comments. It was felt for the subsequent workshop, that the form should be re-designed to better discriminate the workshop perceptions of each participant.

As noted in the 2nd report, community health volunteers are typically trained by the community health workers. Community health workers received their training from the provincial hospital. There was no set curriculum for health care volunteer education, and limited clinical training for health care workers. Health worker training focuses primarily on the logistics of patient referrals, and the circumstances for each disease entity that required referral.

II-3. Pang Khon

The same three part exercise, 1) ice breaker, 2) accident/injury, bleeding, snake bit, and 3) antenatal emergency scenarios and discussion, as well as fundal height measurement

was performed in Pang Khon. Loss of fetal movement was added to the antenatal emergencies workshop. In addition there were 2 third year graduating residents to help with scenario enactment and facilitating group discussion. Key points from each education segment were summarized and reinforced (Appendix 1).

Approximately 16 people participated in the workshop, including 3 CHWs and 1 male nurse. Of all the participants, 9 were women. As in the previous burn workshop, we learned that burns were treated with toothpaste, aloe vera and MSG. The participants were broken up into small groups for more interaction and hands on two way education, including splinting of extremity fractures.

The written participatory evaluation form was changed from like/dislike, to a ranking system, 1-4, of the topics presented. The most useful was to be designated “1”, and each participant was asked to write the reason for their top choice. Accident/injury was chosen as number 1, and based on comments, it was felt to be the most useful in terms of being able to apply to family members and the community. Antenatal emergency was number 2 with suggestions to include the information provided for all new fathers.

III. FINDINGS:

A. COMMUNITY HEALTH WORKER (CHW) TRAINING:

1. Provincial Primary Care Unit staff members do not have enough time to provide direct supervision to health care workers or health volunteers in each village.

The workshop at Pang Khon was the first time that provincial PCU staff had the opportunity to directly interact and provide health care training at the village level. This is due to the lack of available funding and logistical support to provide direct supervision of primary care providers at the community level. This is also coupled with significant patient volume seen at the CRH PCU, which is understaffed in relation to patient volume.

2. Training of health volunteers is dependent on community health workers (CHWs), employing training of the trainer (TOT) model¹ and there is a variation in the contents of each training exercise.

¹ Carlo, W., et al. (2010). "Newborn-care training and perinatal mortality in developing countries." *N Engl J Med* **362**: 614-623.

One of the ‘negative’ studies employed TOT model. It illustrates the problems of TOT approach and assumptions for TOT model.

The TOT model is employed to provide training for health volunteers and it was totally up to each individual health worker to decide what level of training s/he provides. There is currently no standardized curriculum or guideline.

Most community health volunteers (CHVs) have never done any hands-on procedures such as suturing or splinting. They appear in general to want more education on diseases/illnesses that affect their community.

3. Many health volunteers need a refresher course for their role related tasks, other than NCDs.

B. FAMILY MEDICINE RESIDENCY TRAINING:

4. The first two residents in family medicine are graduating in June of this year. There are seven residents (five persons in the 2nd and two in the 3rd year class) total. These residents were selected based on the need to increase personnel and provide manpower in PCUs and the district hospital rather than with the focus and goal in mind to train family physicians. All residents so far are 'practice-based' family medicine residents, assigned to the district hospital for 3 years loan payback duty and who are granted the ability to sit for family medicine board examination after going through several educational sessions.
5. Some students prefer family medicine residency at the provincial hospital to the 3-year post graduation obligation (loan payback duty) at the district hospital as general practitioners. It is not certain whether the graduates of family medicine training will stay as family physicians or to proceed to subspecialty training.
6. There is no strong incentive to become a family physician in Northern Thailand: hospital subspecialists tend to look down on these providers as 'referral machines' with don't have sufficient knowledge in clinical medicine. Communities are raising concerns regarding access and the quality of care they are receiving. With this 'double burden' from both the community and the health care system, family physicians or general practitioners are losing ground in the practice of medicine, and losing ground and momentum to establish meaningful training for trainees.
7. There is no professional development in medical specialties in general including family medicine. There is no re-certification process for the medical board, and there is no requirement for continuing medical education (CME).
8. Case presentations by 2nd and 3rd year residents demonstrated their breadth of understanding of the importance of the psychosocial aspects of patient care. However, medical knowledge and skills should be strengthened by incorporating updated clinical evidence and their available resources.

9. There is no clear implementation of a methodology to evaluate residents and preceptors. Individual feedback by faculty members based on those evaluations is not provided.

RECOMMENDATIONS:

A. CHW TRAINING:

1. Both CHW and CHV training needs to be a dynamic process in order to absorb the changing needs of the community². The first module of a training curriculum will be developed using the materials from the workshops noted above. Each of the PCUs will be educated using this module. Additional modules will be developed using topics self-identified by each PCU's staff, as well as from inquiries logged to the CRH nurse advice line. Refresher flash cards will be created and posted at each PCU for CHW/CHV review and reinforcement.
2. The curricula will require rigorous revision, including the process for workshop evaluation, as well as the design and conduct of future training programs. It should not be a static curriculum repeated many times, but rather one that is revised and improved upon constantly. Training programs require constant revision and vigilant surveillance in order to reflect the community's needs. GHT-FM-CASE is willing to provide further technical assistance as needed, based on our previous experiences with other communities around the world.
3. The effectiveness of this training should be closely monitored by CRH PCU staff. We witnessed the substantial variability of the baseline knowledge and skill level of health volunteers depending on districts. Appropriate methods to evaluate the impact of training should be developed. But the tool for evaluation should be an educational process for the volunteers so that they can continue to improve the training activities by themselves.
4. Evaluation activities should facilitate active participation from the participants and transfer the ownership of the training from 'us' to 'them' so that they can participate in revision and improvement. Designing evaluation activities for this purpose requires creative thinking far from our entrenched 'academic' thinking, where we 'take' data from 'them'³. We employed the 'Five Stones' method for participatory evaluation, but the categories and the voting process should be revised to capture the true feelings and honest feedback of training efficacy from the PCU staff.

² Arifeen, S., et al. Ibid. "Bangladesh: Innovation for universal health coverage 3. Community-based approaches and partnerships: innovations in health-service delivery in Bangladesh." 2012-2026.

Illustrates the changing needs in communities in Bangladesh and CHWs work in the past few decades.

³ Diaz, A., et al. (2013). "Variation in the interpretation of scientific integrity in community-based participatory health research." Soc Sci & Med **97**: 134-142.

Look at the table for instance to contrast our and their thought process.

B. FAMILY MEDICINE RESIDENCY:

5. Development of a family medicine department is urgently needed to solidify the training for primary care residents in northern Thailand.
6. A Mission statement should be developed by core faculty members to define the goal of the department prior to further curriculum development or launching a recruitment campaign for residents and faculty members.
7. Continue to reach out to communities utilizing various available manpower including residents, medical students and other healthcare professionals, so that you can better define and understand the community you're serving, and implement comprehensive, multidisciplinary interventions in the community.
8. A curriculum for medical students including global health should be developed. The essence of global health training is to teach cultural relativism and social determinants of health on an inter- and intra-country scale. Both are relevant in northern Thailand where the health care system serves multiple ethnic communities, as witnessed by the increasing divergence of wealth brought about by rapid economic development and change. Global health is not a luxurious topic to examine exotic illnesses brought from outside, but rather it is a subject to prepare learners to address insidious yet drastic changes brought from inside the society. It is part of the essential skills and knowledge base needed to understand the health status gap among various populations.
9. A culture of professionalism, self-learning, continuing medical education and academic pursuit should be nurtured in the discipline of Family Medicine.
10. Recruitment of medical students, residents and faculty members should be started. A student interest group in Family Medicine and CME opportunities for practicing GPs are good ways to facilitate recruitment for the family medicine department. As noted, a *Mission Statement* should be in place to clearly delineate what the department has to offer these recruits.
11. Focused faculty development seminars and lecture series for residents should be planned for using outside resources. Either one full day or two half-days of protected time is needed for meaningful educational content. This educational retreat should be planned somewhere outside the hospital.
12. With the enormity of the mission of treating infectious diseases as well as the NCD epidemic, provincial PCU staffs are overwhelmed by the day-to-day task of clinical care and its logistical workload. It is extremely difficult for them to detach themselves from these chores to reflect on their values and thought process, to nurture academic inquiry. But these are essential tenets of what it means to be an academician and clinical educator. Clinicians without reflection and continuous learning are like a leaky faucet draining water. They will not retain any wisdom or knowledge in any meaningful way. One of the

major purposes of annual visits by an outsider is to ensure the ‘detachment’ of the PCU clinical staff from their overwhelmingly busy daily life, and provide reassurance and guidance for their academic pursuits, allowing them to become more effective educators.

13. A faculty retreat and workshop should be scheduled during our visit next year, on enhancing educational opportunities for both residents and faculty members. A minimum of one full-day or two half-days should be allocated for the workshop. Ideally, it should be provided through venues outside PCU or outside of the hospital so that participants can fully participate and engage in these educational opportunities.
14. GHT-FM-CASE team and Dr. Intralawan will be in contact every 3-4 months for progress updates regarding the mission statement and curriculum development, with plans to start working on the program content of the upcoming workshop and retreat in January 2016.

IV. APPENDICES

1. Key Education Points for Disease Assessment and Management
2. Establishing the Chiang Rai Prachanukroh Regional Hospital (CRH)
Department of Family Medicine

Appendix 1: Key Education Points on Disease Assessment and Management

Accident/Injury/Bleeding

1. Reduce fractures
2. Pull against contracted muscles
3. Check extremity pulse and color
4. Apply splint and immobilize extremity
5. Refer to hospital for further treatment

Bleeding

1. Apply direct/pin point pressure to areas of bleeding for at least 15 minutes
2. If impaled, trim the length of the branch/object if possible but leave in place
3. Refer to hospital for further treatment

Snake Bite

1. Wash/clean wound
2. Evaluate for 2 puncture wounds
3. Elevate and immobilize to decrease swelling and improve pain
4. Monitor for bleeding, abdominal pain, blurred vision, difficulty breathing or general decline in condition for up to 6 hours
5. Refer to hospital for any change in clinical condition as noted above

Burns

6. Wash/clean wound
7. Evaluate for blistering, pain, no pain
8. Size evaluation using palm counting
9. Dressing application; use plastic bag to cover wound if no other dressing available
10. Refer burns of 20% size/TBSA to the hospital or if the wound is painless

Antenatal Emergencies

1. Intractable headache with blood pressure 140/90 or greater is concerning for preeclampsia
2. Vaginal bleeding
3. Sharp, stabbing, constant abdominal pain
4. Less or no fetal movement than previously felt
5. Refer to hospital for all of the conditions above

Appendix 2: Establishing the Chiang Rai Prachanukroh Regional Hospital (CRH) Department of Family Medicine

Mission:

- Mission statement to be created by April 2015
 - *Thoughts*
 - *Train clinically excellent family physicians*
 - *Train family medicine residents to integrate Patient-Centered, Community-Based care into the Healthcare System*
 - *Reflect the unique patient population of the region*
 - *Bridge the gap from the hospital, the clinic, the community. Not just gate keeping*
 - **Why Chiang Rai?**
 - Diverse patient population
 - Unique education opportunities – longitudinal projects from community to tertiary are such as stroke, hypertension, and diabetes. Utilize case based/problem based education to also align with other specialties
 - PCU; District Hospital; Community-Based Experiences

Focus Areas:

- Community-Focused Interventions
 - Primary Care Unit (PCU)-based Education & Training
- Resident & Medical Student Education
 - Curriculum Development
 - Bedside Teaching
 - In-Service Training
- Faculty/Preceptor Recruitment, Retention & Development
- Community Physician Development

Program Structure:

- Learning Cards/Teaching Portfolio
 - Resident Education
 - Generate and use resident portfolio of questions to help drive curriculum content – individual resident notebooks

- Use subspecialties as a resource – what are the key education points for our residents need to know about your specialty
 - Create resident archive of reference resources – Mori’s handbook as starting point
 - Study guide of pre-selected topics using Thai Fam Med Board requirements
- Weekly Conference Series
- Outpatient Experience, based at CRH PCU
- Inpatient Experience (need to develop inpatient service at CRH)
- Monthly In-Service Training, based on Royal College of Family Physicians certifying exam
- Reflective Evaluation for Integrated Health Systems Approach (modified chart review)
- Global Health, as a reflection of the immigrant patient experience & the impact of immigration & globalization on the Thai health system

- Resident Assessment
 - Knowledge assessment
 - Growth assessment – approach to problem solving, self awareness
 - Clinic patient review – take patient through entire healthcare system: clinical + psychosocial assessment
 - Personal performance assessment

Program Faculty

- Identify and utilize the best specialists at the provincial and district levels
- Professional development of local

Future Deadlines:

- April 2015: Develop formal mission statement for department
- January 2016:
 - Arrange for “CME conference” for community physicians practicing family medicine
 - Complete training for selected PCUs