

explicit student competence to earn a public health degree. As a novel public health training program, we appreciated the clarity of pre-defined competencies and have used them to inform development of an integrated, performance-driven curricula and an iterative student evaluation process.

**Structure/Method/Design:** For each pre-defined competency (30)—along with additional competencies that focus on our underlying themes of One Health and Planetary Health for Public Health (12)—we reviewed various sources (12) to identify existing performance indicators. More than 250 indicators were identified. Following thematic categorization, indicators were combined, refined, and/or developed to ensure that students can be evaluated against objective criteria that are components of the competence.

**Outcome & Evaluation:** A final set of 42 knowledge and performance competencies, and 170 indicators were defined. Following development of the program's competencies and the performance indicators, the program curriculum was developed.

**Going Forward:** We have three priorities for the next year:

- Each course within the defined curriculum is being developed or refined such that course learning outcomes align with the performance indicators.

- A 360-degree evaluation process and tool is being developed to allow students to track and reinforce their competence from their first day in the program.

- Each indicator will be evaluated at least three times over the program by faculty, mentors, community partners, peers, and/or the student. This process is being replicated, evaluated, and improved in partnership with another program in another country.

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### Assessing the Role of the Friends of Shanta Bhawan Nepal Clinic in the Communities of Northeast Kathmandu, Nepal with a Focus on Maternal and Child Health and Patient Satisfaction

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**Background:** The Friends of Shanta Bhawan (FSBN) Clinic has been providing primary healthcare in the Jorpati community of Kathmandu, Nepal since 1983. The clinic serves a diverse population composed of various Tibetan and Nepali ethnic groups. Through a partnership with the FSBN clinic, students from the New York University School of Medicine (NYUSOM) performed a six week assessment in an effort to improve and expand care provided by the clinic with a focus on maternal and child health (MCH).

**Methods:** The study utilized four methods of data collection: MCH interviews, patient satisfaction surveys, community focus group discussions (FGDs), and observation to create a list of recommendations for the clinic.

For the anonymous and randomized MCH patient interviews, 31 mothers with children under the age of five were asked about various indicators of MCH. The anonymous patient satisfaction

surveys were completed by 94 willing and able patients waiting to see a physician. Results from MCH interviews and surveys were used to design questions for FGDs within five surrounding communities. The FGDs consisted of approximately ten community leaders separated based on gender.

**Findings:** The NYUSOM International Health Program approved the study, which was exempted by the NYUSOM International Review Board. Verbal consent was obtained for patient interviews while written consent was obtained for the FGDs. A maximum number of interviews, focus groups, and patient surveys were completed over the six week period. The findings from the four methods were cross referenced using Qualtrics Survey Software and Microsoft Excel.

**Interpretation:** Results from the four sources emphasized a greater need for maternal health services across various domains. In particular, education regarding antenatal care, family planning, and sanitation was lacking in the clinic and community. The majority of mothers interviewed also showed signs of depression, indicating a need for mental health services. FGDs revealed many barriers to care such as financial difficulties, mistrust of physicians, and delayed seeking of care. Community members requested increased health education, clinic based outreach, subsidized care by the clinic, and an expansion of clinic hours. Additionally, the satisfaction survey responses highlighted areas of improvement in the clinic.

**Source of Funding:** NYUSOM funded travel and accommodations.

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### Lessons Learned in Creating a Neonatal Nursery at a District Hospital in Rural Malawi

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**Program/Project Purpose:** Malawi's neonatal mortality rate is 42 per 1000 live births with about one third of childhood mortality represented in the neonatal period. Malawi's challenges in neonatal care are caused by a high population growth rate, a high fertility rate and low health worker density. This is evident in Neno, a remote district in southwest Malawi with an estimated total fertility rate of 6–6.5 births per woman and only ~65% of births attended by a skilled attendant. We set out to create a neonatal nursery in the District Hospital to better focus resources and care for this vulnerable population.

**Structure/Method/Design:** The neonatal nursery was established January 11, 2016 within the Labor and Delivery Unit in the Neno District Hospital. It was developed with delineated space, equipment and protocols for admission and treatment strategies for sick infants 0–6 weeks old. The design was implemented to increase

awareness of these neonates, monitoring and centralize resources such as incubators, two Pumani Continuous Positive Airway Pressure (pCPAP) devices, and staff.

**Outcome & Evaluation:** One hundred and forty-six neonates were admitted to the nursery from January to July 2016. The most common admission diagnoses were sepsis or neonatal fever (N=86), birth asphyxia (N=24), prematurity (N=13), meconium aspiration (N=10) and respiratory distress syndrome (N=8). There have been 13 neonates born premature with a median birth weight of 1400g, and 7 survived to discharge. There has been an increased use of pCPAP. Mortality in nursery admissions was 11.7/1000 live births from Jan-June 2015, then 14.4/1000 live births from July-Dec 2015 and with initiation of the nursery was 11.7/1000 live births from Jan-July 2016.

**Going Forward:** The creation of a nursery at Neno District Hospital has resulted in an increased use of pCPAP and specialized care for vulnerable neonates. Results for mortality for nursery admissions are not significant at this time but we expect a downtrend as the nursery becomes established. Major challenges include survival in premature neonates, birth asphyxia, and in our experience, lack of adequate staff dedicated to the care and documentation of these neonates. Additional challenges include stock outs in specialized medications and poorly functioning equipment without reliable electricity. Furthermore, specific discharge follow up protocols need to be implemented.

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