

**Outcome & Evaluation:** 12 months after the first set of trainings, 16 out of the 18 volunteers were still part of the group, many of whom are actively reaching out to community members suffering from mental health disorders.

**Going Forward:** The project was replicated in Arusha, Tanzania and Mombasa, Kenya to assess replicability. The success in Arusha and Mombasa has paved the path for a full roll out East Africa wide. Discussions are now underway for MHFA curriculum to be translated in Swahili and adapted to the East African culture. A training of trainers' workshop will then take place to train trainers who will train volunteers in communities across East Africa and assist each community in setting up their own mental wellbeing groups and structures. The biggest challenge the project has faced is combating the stigma surrounding mental health.

**Funding:** Local community fundraising and donations.

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### Housing quality as a potential risk factor for locally acquired malaria infection in Swaziland

N. Mkhonta<sup>1</sup>, R. Allen<sup>2</sup>, D. Pindolia<sup>3</sup>, N. Ntshalintshali<sup>3</sup>, J. Novotny<sup>3</sup>, M. Kang Dufour<sup>4</sup>, R. Gosling<sup>5</sup>, A. LeMenach<sup>3</sup>, J. Cohen<sup>3</sup>, A. Midekisa<sup>5</sup>, B. Greenhouse<sup>4</sup>, M.S. Hsiang<sup>2,5,6</sup>, S. Kunene<sup>1</sup>; <sup>1</sup>Swaziland National Malaria Control Programme, <sup>2</sup>School of Medicine, University of Texas Southwestern Medical Center, <sup>3</sup>Clinton Health Access Initiative, <sup>4</sup>Department of Medicine, University of California, San Francisco, <sup>5</sup>Malaria Elimination Initiative, Global Health Group, University of California, San Francisco, <sup>6</sup>Department of Pediatrics, University of Texas Southwestern Medical Center

**Background:** Poor housing quality may confer greater risk of malaria infection by means of increased mosquito exposure; however, evidence in low transmission settings is lacking. In this study, surveillance data was used to examine the relationship between housing quality and locally-acquired infection in the low transmission setting of Swaziland.

**Methods:** A retrospective analysis was conducted utilizing data collected from passive and active surveillance. Subjects included malaria index cases diagnosed at health facilities as well as their household and community screened in active case detection from August 2012 to March 2015. Subjects with recent history of travel and/or residing beyond 500m from the index case were excluded. Using bivariate and multivariable logistic regression, adjusted for household-level clustering, the relationships between infection (testing positive by Rapid Diagnostic Test (RDT), microscopy, or loop-mediated isothermal amplification (LAMP)) and housing quality, as well as other epidemiological factors were analyzed. Housing quality was assessed by individual components (wall, roof and window type) as well as a composite housing quality index.

**Findings:** Cases included 280 index cases and 131 RDT or LAMP positive individuals identified in active surveillance. These cases were compared to 8668 non-infected household members and neighbors of index cases. In the multivariable model, poor quality external wall and windows were associated with higher infection odds (OR 3.74 95%CI 1.53–9.16 and OR 1.70 95%CI 1.03 – 2.80). There was a trend in the association with poor quality roof,

but the relationship was not significant. Using the composite housing index, compared to good quality housing, moderate and poor quality housing were associated with higher infection odds (OR 1.92 95%CI 1.27–2.91 and OR 2.68 95%CI 1.40–5.13). In the composite housing model, coverage of vector control interventions was independently associated with protection. Compared to no vector control (neither sleeping under an insecticide treated bed net (ITN) nor a sprayed structure), coverage with either an ITN or spraying conferred protection (OR 0.67 95%CI 0.44–1.01), as did coverage with both interventions (OR 0.10 95%CI 0.13–0.72).

**Interpretation:** Housing quality, especially wall material, is an important determinant of locally-acquired infection in Swaziland, suggesting improved housing as a potential control and elimination strategy in low transmission settings.

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### Measuring facility capability to provide routine and emergency delivery care to mothers and newborns: an appeal for utilisation of metrics allowing adjustment for delivery caseload of facilities

S.M. Allen<sup>1,2</sup>, O.M. Campbell<sup>1</sup>, C.L. Opondo<sup>1,3</sup>; <sup>1</sup>Department of Epidemiology and Population Health, London School of Hygiene & Tropical Medicine, London, UK, <sup>2</sup>Baylor College of Medicine, Houston, TX, USA, <sup>3</sup>Nuffield Department of Population Health, University of Oxford, Oxford, UK

**Background:** Emergency obstetric care (EmOC) indicators and signal functions for emergency newborn care (EmNC) and routine delivery care can be used to assess the capability of health facilities to provide comprehensive delivery care. We aimed to develop and illustrate the usefulness of a statistical method that accounts for differences in delivery caseload between facilities to standardise patient volume.

**Methods:** Using the 2010 Kenya Service Provision Assessment dataset, we examined facilities' capabilities by applying EmOC indicators in addition to suggested EmNC and routine care functions. We required facilities to possess equipment and/or medications necessary for each signal function. Our analyses accounted for complex survey sampling. To better contextualise the results, we analysed the data in terms of delivery caseload, with the number of deliveries in the facility in the previous 12 months factored into the survey weight value. These results are reported as percentage of deliveries, instead of percentage of facilities, signalling a shift in focus of metrics from facilities to individual deliveries.

**Findings:** Of the 695 facilities in the survey, 403 (58%) provided delivery care and were included in the analysis. Nearly half (46%) of deliveries occurred in a facility that was capable of providing 9–11 of the 11 routine delivery care functions; 46% and 12% occurred in a facility equipped to provide basic emergency obstetric and newborn care, respectively. Less than 2% of deliveries occurred in a facility equipped to provide the full spectrum of emergency and routine delivery care.

**Interpretation:** The picture of delivery preparedness improved with the delivery weights methodology, as more deliveries took place in better equipped facilities. This analysis shows that use of the delivery weights methodology allows some adjustment for patient volume, albeit no adjustment for crowding or staffing constraints. Despite its limitations, this methodology represents a crucial step in shifting the outcome of interest, and the denominator of our measurements, from facilities to individual deliveries. Considering that facility utilisation differs widely by facility type and national context, it is plausible that employing these methods could better standardise national datasets, enhancing their ability to inform policy at a national and international level.

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### The ethic experiences and preparation of medical trainees participating in short-term, international educational programs: a systematic review of the literature

J. Aluri<sup>1</sup>, B. Carroll<sup>1</sup>, A.G. Kironji<sup>1</sup>, J. Edwardson<sup>2</sup>, C.C. Chen<sup>2</sup>;  
<sup>1</sup>Johns Hopkins University School of Medicine, <sup>2</sup>Johns Hopkins University School of Medicine, Department of Obstetrics and Gynecology

**Background:** Responding to demand from medical trainees, educators have developed a spate of short-term, global learning opportunities. However, it is uncertain how well the literature has reported and analyzed the ethical challenges for medical trainees participating in these new programs. This knowledge is important for those designing and reforming global health programs. Therefore, we conducted a systematic review to evaluate the literature addressing ethics preparation and experiences of medical trainees who pursue short-term global health trips.

**Methods:** We devised a set of inclusion and exclusion criteria. Inclusion criteria were four main components: (1) global health, (2) ethics, (3) medical trainees, and (4) short term trips. Articles were excluded if (1) they described or analyzed programs or experiences not supported by a USMLE or ACGME accredited program or (2) were written in a language other than English.

Search strategies were developed in consultation with a librarian for five databases: Pubmed, Embase, Education Source, Academic Search Complete, and Web of Science (Core Collection). A single author analyzed the search results based on the inclusion and exclusion criteria and a team of authors conducted a qualitative content analysis of the resulting papers.

**Findings:** The search protocol returned 530 unique papers, of which 73 were qualified based on the inclusion and exclusion criteria. Identified papers fit into three broad categories:

- (1) Program case reports (n=29). These narratives described curriculum or program development, and addressed curricular ethics content aimed at preparation for short-term trips.
- (2) Reflective essays (n=24). Often drawing on personal experience from program development or participation, these essays contained reflective analysis and narratives.
- (3) Empirical research papers (n=20) that used research methodology to describe the ethical challenges faced by medical trainees on short-term trips.

**Interpretation:** Our preliminary results show a nascent literature on ethics for medical trainees embarking on short term, international trips. The case studies and essays are helpful for exchanging program ideas; however, more systematic, empirical studies would be useful to evaluate and guide curricular development.

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### "The decontamination is not done": a photovoice exploration of the lives of internally displaced people in Fukushima

C.N. Anderson<sup>1</sup>, C.L. Mann<sup>1</sup>, A. Massazza<sup>2</sup>, H. Sekine<sup>3</sup>, R. Yanagisawa<sup>1</sup>, C. Katz<sup>1</sup>; <sup>1</sup>Mount Sinai Icahn School of Medicine, <sup>2</sup>University College London, <sup>3</sup>Fukushima Medical University

**Purpose:** While there is an abundance of research on the after effects of the 3.11 triple disaster on subsets of affected individuals, including nuclear power plant workers, there is a dearth of literature examining the experiences of those who remain internally displaced by the disaster. This project was designed to create a visual and oral narrative of the daily lives of internally displaced individuals in Fukushima, Japan.

**Method:** Using Photovoice, a community based participatory research method that uses documentary photography and storytelling, seven residents of the Onodai temporary housing shelter underwent three rounds of photo-taking during July, 2015. Each round of photos was followed by individual in-depth interviews, and group discussions. Bilingual medical students acted as translators during the interview process. The English portions of each interview was transcribed verbatim and analyzed using grounded theory to identify broad categories that were then refined to generate consistent themes.

**Outcome & Evaluation:** The resident's stories, elicited by the photographs they took, showed how the long-term effects of the disaster manifested as a series of juxtapositions in their lives. Several participants reported feeling torn between their loss of purpose, as their farmland was destroyed, and their enjoyment of new-found leisure time. They also reported that while they enjoyed the sense of community that they had within the temporary housing shelter, they often felt stifled by the new level of physical proximity to their neighbors. Finally, they reported feeling that nature, with which they reported having close communion, had been tarnished by the radiation that now covered their homes, forests, and fields. All participants, however, reported a desire to build a better life, either by building new homes in areas that had not been affected by the radiation, or by rebuilding their lives and legacies in their hometown.

**Going Forward:** This small study may give some insight into the feelings of internally displaced Japanese people in the wake of this disaster, and may hopefully inform the efforts of those who are attempting to aid in this recovery.

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