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**Background:** The Israeli Ministry of the Interior reports that 54,580 asylum-seekers arrived in Israel through the Sinai desert between 2007 and 2013, most originating in Eritrea and Sudan. Approximately 30% of asylum-seekers who received treatment at a mental health clinic in Israel were diagnosed with PTSD. This study examines the reports of exposure to traumatic experiences among asylum-seekers en route to Israel.

**Methods:** The study took place between the fall of 2010 and the spring of 2012 at the Physicians for Human Rights Israel's (PHR-I) Open Clinic, a free clinic located in Jaffa, Israel for undocumented and uninsured people. All asylum-seekers over 18 years of age who presented for their initial visit to the Open Clinic were given the opportunity to participate in the study, and 1,044 asylum seekers (447 women, 448 men from Eritrea and 18 women, 131 men from Sudan) participated. Upon accessing services at the Open Clinic, participants were verbally consented for participation, and then interviewed in their native language by a nurse fluent in Tigrinya and Arabic about their experiences during migration. The study was approved by the Ethics Committee of PHR-I, and data collection was in compliance with human subject protocol. To identify gender and country of origin differences in dependent variables, independent samples t tests and Chi square analyses were performed for continuous and categorical variables, respectively. Analysis was performed using the SPSS version 20.0 (SPSS Inc., Chicago, IL). Bonferroni correction was applied in order to account for multiple comparisons ( $\alpha = 0.0025$ ).

**Findings:** 56% of Eritrean men, 34.9% of Eritrean women, 51.9% of Sudanese men, and 44.4% of Sudanese women reported being victims of violence, with exposure to shooting and beating being the most prevalent forms. Significantly more male than female Eritrean asylum seekers reported witnessing violence and experiencing violence themselves ( $p < 0.0001$ ,  $< 0.0001$ ). Eritreans paid more to their smugglers on average than Sudanese ( $\$3,765 \pm \$4,269$  and  $\$957 \pm \$1,633$  respectively; figures in USD). A total of  $\$3,822,760$  was paid by participants to smugglers overall.

**Interpretation:** These data demonstrate a large amount of trauma among asylum-seekers in Israel, with some variability according to gender and country of origin. Limitations include potential reporting bias, especially with respect to sexual violence, as well selection bias, as an estimated 4,000 asylum seekers have perished in Sinai in the past 5 years en route to Israel. Our data highlight the need for a coordinated international effort to improve the well-being of this vulnerable population, as well as cross-border cooperation in order to document and prevent the transgressions.

**Funding:** This study was funded through the operating budget of PHR-I.

**Abstract #:** 02GMHE003

### Estimating costs and lives saved following implementation of a community health worker delivered timed and targeted counseling approach in Palestine

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**Background:** In Jerusalem West Bank Gaza World vision implemented an Operations Research (OR) around deployment of its Timed

and Targeted Counseling (ttC) program in Palestine from 2008 through 2012. ttC is delivered by trained community health workers and provides prioritized preventive and care-seeking messages to pregnant women and mothers/caregivers of children under two at time points when the information is needed. In 2013, evaluation results were used to conduct the cost-effectiveness analysis (CEA) presented here.

**Methods:** Five interventions were included in the CEA namely exclusive breastfeeding, duration of breastfeeding beyond a year, introduction of supplemental foods at six months, danger sign recognition and use of oral rehydration therapy during diarrhea. The CEA was conducted in step-wise approach. First, the Lives Saved Tool (LiST) (<http://www.jhsph.edu/departments/international-health/centers-and-institutes/institute-for-international-programs/list/index.html>) used to estimate lives saved by each intervention separately. Using a version of this mathematical modeling software that provides error estimates, lower and upper bounds around point estimates were also calculated. Secondly, using cost data furnished from 66 study households included in the OR study over a 14-month intervention period, costing of each intervention was included in the model. The final stage of CEA was calculating ratio of cost per life saved then comparing these to WHO reference values. To provide a conservative estimate, interventions were considered independent, as if they were carried out in separate households. Estimated costs per life-year saved were discounted using a 3% rate and 5-year time horizon.

**Findings:** Assuming zero additivity of the interventions, exclusive breastfeeding was estimated to yield the greatest number of life-years saved with around 41 life-years (discounted) in the target population. The most conservative scenario yielded a cost per life-year saved of 197USD associated with the exclusive breastfeeding intervention.

**Interpretation:** Considering the total costs of the interventions, the non-additive scenario yields a cost per discounted life-year saved of 197USD, which is under the threshold of GDP per capita (1,340USD for the case of Palestine) as proposed by the WHO Macroeconomics in Health Commission as a criteria of very cost-effective intervention.

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### Assessment of the structure and activities of pharmacy and therapeutics committees of public sector hospitals, Gauteng Province, South Africa

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**Background:** The World Health Organisation (WHO) identified Pharmacy and Therapeutics Committees (PTCs) at district and hospital level as one of the pivotal models to promote rational medicines use. In South Africa, one of the objectives of the National Drug Policy (1996), was for the establishment of PTCs in all hospitals to ensure rational, efficient and cost-effective supply and use of medicines. Documentation on the functionality of PTCs in achieving this objective is limited. The study aimed to evaluate the structure, activities and medicines selection process used by public sector PTCs in Gauteng Province, as compared to WHO- and provincial guidelines.

**Methods:** An exploratory, mixed-methods study with a triangulation design was adopted. Qualitative and quantitative data were collected and analysed separately, but sequentially in three phases, with priority given to the qualitative data. Phase 1 entailed a questionnaire survey of 20 hospitals, followed by non-participatory observations of 13 PTC meetings in Phase 2. Gaps identified in the first two phases were

addressed through non-structured interviews with nine hospital-based pharmacists in Phase 3. Results from the different phases were converged during the interpretation phase. Phase 1 survey results were compared to themes identified from observations (Phase 2) and interviews (Phase 3) to confirm actual PTC structure and activities. Ethical clearance was obtained from Medunsa Campus Research and Ethics Committee and permission granted by provincial authorities. **Findings:** The results showed that most professionals were represented in the PTCs, with variations according to hospital level of care. Membership of all PTCs included a pharmacist, who in the majority of cases fulfilled the secretariat position. Most of the PTCs conducted meetings at least once/month. Main PTC activities included dissemination of decisions (100%) and formulary management (89.5%). Reporting of adverse drug reactions (ADRs) and medication errors PTC function was poor at all levels. Lack of expertise in pharmacoeconomics and evidence-based decision-making was identified as one of the challenges in formulary management. Survey results and interviews with pharmacists revealed that insufficient staff and poor attendance of meetings hindered PTC activities.

**Interpretation:** Lack of expertise on the application of pharmacoeconomic analysis and evidence-based decision-making in formulary management, and limited ADR reporting in attaining rational medicines use at all levels, were identified as the main challenges in the activities of the PTCs. Future programmes should strengthen PTCs in specialised aspects of formulary management, and further training in the principles of pharmacovigilance is required to enhance ADR reporting, as well as to ensure compliance with both WHO and provincial guidelines. Strong institutional support of PTCs should be encouraged in order to ensure better participation of staff in PTC activities to guarantee rational medicines use in public sector hospitals in Gauteng Province.

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### Selecting essential medicines: How economic data are used throughout the WHO decision making process

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**Background:** For the past decade, the World Health Organization has strengthened its evidence-based process to make decisions about which products are added to the global Essential Medicines List (EML). The EML identifies high-quality and reasonable-cost medicines that address priority health needs, and over 155 countries have adapted this list for their own national EMLs. The EML is an important tool for global governance, and decisions about additions have a major impact on global and national decisions, with significant budgetary, ethical and health implications. The objective of this study is to analyze the quality of publicly available economic evidence in applications for and decisions about addition to the EML.

**Methods:** The paper analyzes price data and economic evaluation data presented in applications, the assessment of this information by reviewers of the application and how these two sources of information were used in making EML decisions. The sample includes 134 applications for additions to the WHO adult EML, from 2002 to 2013 (available on the WHO website) and 177 reviews of applications. The key variables of interest included provision of price and/or cost-effectiveness information within the application; discussion of these economic data by expert reviewers; and the WHO Committee's decision about whether to add each medicine to the list.

**Findings:** This analysis found significant deficiencies in the provision of required economic data in new applications to the EML: only 6% of 134 applications included complete price data and economic evaluation data, and many omitted or misinterpreted the economic evaluation section entirely (57.5% and 17.9%, respectively). Similarly, only 36% of reviewers mentioned price information and 22% mentioned economic evaluation. Despite the high degree of data incompleteness in the studied applications, all were reviewed by the Committee; and there was no statistical association between completeness of information and likelihood of addition to the EML. Qualitative analysis indicates that the WHO tries to address information gaps in applications by conducting its own review and analysis.

**Interpretation:** This is the first comprehensive analysis of the use of economic data in the EML decision process; it examines applications, recommendations and decisions across all medicine types and over a period of 12 years. The results suggest that improvements could be made to increase the transparency and efficiency of the EML application process; applicants should be encouraged, and perhaps required, to submit high-quality and complete applications, which includes economic data (or explicit mention of a lack thereof). Additionally, WHO should provide explicit rules and methods for how economic data are used in decision making for the EML and the consequences of not including required data.

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### Routine immunization consultants (RICON) review in Nigeria: A country driven management approach for health systems strengthening in routine immunization

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**Background:** Since 2006 the Nigerian government has deployed Routine Immunization (RI) Consultants to all 36 states and the Federal Capital Territory to serve as technical assistance (TA) for RI. To date, there has been no systematic evaluation of the consultant program. Here we review this country driven management approach to TA in order to provide recommendations to inform future strategies.

**Methods:** We conducted a retrospective programmatic review from Jun-Sept 2014 using qualitative and quantitative methods. In total, 84 qualitative interviews with 101 participants were recorded. Recorded data was complete and high quality for 70 of these interviews, thus qualitative data analysis was conducted on 70 in-depth interviews and focus group discussions with a total of 82 individuals from 7 States and the FCT in Nigeria. Respondents were purposively drawn from national, state, and local government levels. Additionally, an online survey was sent to 89 respondents across all states. All qualitative interviews were audio-recorded, transcribed verbatim, hand-coded and analyzed using Atlas.ti software. This study was approved by the JHSPH IRB and the NHREC of Nigeria.

**Findings:** The majority of respondents were male (66%, n=67) with an average age of 50 ± 5.6yrs (range 33-67yrs). According to their TORs, RI consultants are required to play a role in advocacy, technical assistance, supportive supervision, M&E, and capacity building. Overall, RI Consultants were inconsistently deployed across states. Currently only 23 of 36 States and the FCT have an active RI Consultant. State level respondents considered advocacy and supportive supervision as the consultant's most important roles. RI Consultants activities were generally well aligned with their TORs although gaps were found in their ability to monitor state use of RI funds. In three of seven states, Consultants were well integrated as members of the State RI teams. Those not integrated