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**Background:** A diversity of Personal and Home Care Products have been developed along the years, with the purpose of making our lives convenient and pleasant. Nonetheless, a concern has emerged in the scientific community for the study of chemicals substances used in personal and home care products regarding their potential for developmental health risks; specially in vulnerable populations such as pregnant woman. The purpose of this study was to describe the pattern of personal and home care products used by Puerto Rican woman along pregnancy and the role played by socio-demographic characteristics in their usage.

**Methods:** Usage patterns of personal and home care products were collected through the Product Use Questionnaire at three different times during pregnancy for a cohort of 651 pregnant women who participated in the 'Puerto Rico Testsite for Exploring Contaminants Threats'. Product Use Questionnaire acquires information of the use of products during the last 48 hours. We described the use and thorough STATA V13 we split groups of personal and home care products commonly used.

**Findings:** Meaningful results were shown in terms of determinants of health. Selected products were constantly used over time while other products declined with advancing pregnancy.

**Interpretation:** This is the first study that tracks personal care products across pregnancy in Puerto Rico, and evaluates socio-demographics characteristics as determinants of health. This information it's the first step into an exposure assessment and in the future could be useful for regulatory agencies when setting safety guidelines for product use.

**Source of Funding:** PROTECT P42ES017198.

**Abstract #:** 1.008\_WOM

### **Uptake of Post-abortion Care (PAC) Services and Acceptance of Post-Abortion Contraception in Remote Areas of Puntland, Somalia**

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**Program/Project Purpose:** Abortion-related morbidities account for 7.9% of the burden of maternal death globally. In humanitarian settings, access to post-abortion care (PAC) services are extremely limited. Improving access to PAC and post-abortion contraception for crisis-affected women is crucial for preventing maternal mortality and morbidity.

Puntland, Somalia has high maternal mortality, extremely low modern contraceptive prevalence, and limited access to PAC services, despite high rates of unsafe abortion.

In 2013, Save the Children (SCI) introduced a comprehensive program in Puntland using task-shifting and capacity-building of mid-level service providers to administer PAC services via manual vacuum aspiration (MVA) and Misoprostol in low-resourced crisis settings. PAC implementation was complemented by improvements in infrastructure, supply chain management, and community mobilization.

Our programmatic research documents results and learning from the implementation of PAC services in a protracted crisis in Puntland, where conservative Muslim culture can create barriers to the accessibility of PAC.

**Structure/Method/Design:** Working within four government health facilities serving a population of 87,704, a high proportion IDPS, SCI sought to test if their comprehensive PAC model could generate demand for and effectively deliver high quality PAC services in a conservative humanitarian setting.

All clients who accessed PAC services at SCI supported facilities from January 2013 to December 2015 were included in this analysis.

**Outcome & Evaluation:** The average number of monthly PAC clients increased by 90% between 2013 and 2015 (from 20 to 38). Among all PAC clients, 98% were counseled for post abortion contraception and 88% accepted a method before discharge; this is beyond the global standard of 80%.

Our data shows that comprehensive PAC services can be implemented in an unstable and conservative setting where abortion and modern contraception are often stigmatized by communities, health workers and policymakers. The steady increase in PAC service utilization at the supported health facilities shows that through a well-implemented program model, acceptance and uptake of PAC can increase even in protracted humanitarian settings.

**Going Forward:** Further regression analyses will be conducted to determine if there are differences in PAC use and post-abortion contraception uptake by age.

Due to the success of this program, advocacy will continue at a national level to ensure that quality PAC services are more widely available.

**Source of Funding:** None.

**Abstract #:** 1.009\_WOM

### **An Ultra-Low Cost Uterine Balloon Tamponade Package Saves Lives among Women with Advanced Shock from Uncontrolled Postpartum Hemorrhage in Low Resource Settings**

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**Background:** Advanced shock from uncontrolled postpartum hemorrhage (PPH) is the leading cause of maternal mortality in low- and middle-income countries, with 54,000 deaths in sub-Saharan Africa alone in 2015. First-line treatment for PPH includes administration of uterotonic agents, however, when hemorrhage persists, alternative methods are often employed, including aortic compression, uterine balloon tamponade (UBT), and surgical interventions such as B-Lynch compression sutures and ultimately hysterectomy. In low-resource settings, access to emergency surgical services is often limited or non-existent and many women lose their lives due to uncontrolled hemorrhage.

**Methods:** Detailed data were collected in a multi-modal fashion. Women with systolic blood pressures <90mmHg but greater than 70mmHg and/or a confused mental status (Class III shock) and women with systolic blood pressures <70mmHg and/or who were unconscious (Class IV shock) were specifically analyzed.

**Findings:** Three hundred and thirty-nine women with uncontrolled PPH from all causes had ESM-UBT devices placed among 350 study facilities. Three hundred and thirty-three (98.2%) of the 339 women had mental status and/or blood pressure measurements recorded prior to ESM-UBT device placement. Of these, 306 (91.9%) had uncontrolled PPH originating from an atonic uterus. One hundred and sixty-six (54.2%) of 306 women had normal vital signs or were in Class I or Class II hemorrhagic shock. In this group, there was one death attributed to PPH (survival 99.4%). One hundred and eleven (36.3%) of 306 were in Class III shock and 29 (9.5%) of 306 in Class IV shock. Survival was 108 (97.3%) of 111 and 25 (86.2%) of 29 in Class III and Class IV shock, respectively.

**Interpretation:** The ESM-UBT package arrests hemorrhage, prevents shock progression and saves lives in women with uncontrolled PPH from atonic uterus

**Source of Funding:** The Every Second Matters for Mothers and Babies Uterine Balloon Tamponade (ESM-UBT) research program is made possible through the generous support of the Elma Foundation, the Izumi Foundation, Every Mother Counts, the Ujenzi Charitable Trust, the Humanitarian Innovation Fund, and the Saving Lives at Birth partners: the United States Agency for International Development (USAID), the Government of Norway, the Bill & Melinda Gates Foundation, Grand Challenges Canada, and the UK Government.

**Abstract #:** 1.010\_WOM

### Challenges and Successes of a Perinatal Community Health Worker Program for Pregnant Somali and Sudanese Refugee Women

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**Background:** This presentation describes the challenges and successes of a Perinatal Community Health Worker (PCHWs) program for a unique group, pregnant Somali and Sudanese Refugee Women (SSRW) in the U.S. Many African refugees are resettled in metropolitan areas throughout the U.S. and a large portion of these people are from Somalia and Sudan. Pregnant African refugee women are often isolated in their new communities and must interface with a healthcare system that is outside their experience. While pregnancy may be safer in the new country, perinatal outcomes for these women are still poorer than other women of the resettled country. Community health workers are workers who assist individuals and communities to adopt healthy behaviors and conduct outreach and advocate for them. Community health workers have had positive impacts on health around the globe and in North America. However, their work with refugee women in resettlement countries has been limited.

**Methods:** An inter-professional team at a large western U.S. university received a small grant to establish a high impact, community-based pilot program. This project recruited PCHWs from within the Somali and Sudanese communities, trained, and educated them to provide support, information, and cultural liaison services. These PCHWs were also exposed to higher education opportunities and encouraged to pursue them.

**Findings:** Perinatal outcomes of attendance at prenatal visits, adherence to medical advice, and satisfaction with PCHW services were examined at the end of the pregnancies. Challenges emerged in the recruitment, training, and retention of PCHWs from within the refugee communities. Accessing pregnant women in the communities to provide services was also challenging, even for PCHWs from within the same community. Successes included retention of PCHWs and their progression on to higher education.

**Interpretation:** Perinatal outcomes examined were found to be affected by other variables including adherence to primary care, language, transportation, and finances. Women who received services reported increased understanding of western pregnancy care. Lessons learned have been shared with healthcare systems and public service agencies to create system change.

**Source of Funding:** BELLE SPAFFORD ENDOWMENT CHAIR, COLLEGE OF SOCIAL WORK, UNIVERSITY OF UTAH.

**Abstract #:** 1.011\_WOM

### Trends in the Use of Long-Acting Reversible Contraceptive Methods in Conflict Settings: A Retrospective Review of Health Facility Data in North Kivu, Democratic Republic of Congo

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**Background:** Protracted conflict, as found in eastern Democratic Republic of Congo (DRC), has far reaching implications for health. Unintended pregnancies, unsafe abortions, and violations of women's reproductive rights are heightened during armed conflict. Recent Demographic Health Survey (DHS) data reveal continued low contraceptive prevalence and high unmet contraceptive need in DRC. Availability and access to long-acting reversible contraceptives (LARCs) is limited in humanitarian settings. Save the Children, in partnership with the Ministry of Health, has been providing a mix of contraceptive methods, clinical training of service providers, commodity provision, and community mobilization in North Kivu province since 2011.

**Methods:** From May to July 2015, a systematic review was conducted of family planning facility registers and client cards installed by Save the Children in 24 health facilities supported by the Ministry of Health in North Kivu province. The study protocol was developed in partnership with Columbia University and approved by their IRB. The variables extracted from the registers