2017 Evaluation of the Use of Inter-Agency Reproductive Health Kits for Crisis Situations

Analysis and recommendations on the Inter-Agency Reproductive Health Kits between 2015-2016, with a focus on the causes and consequences of over-ordering and waste

United Nations Population Fund

Humanitarian and Fragile Context Branch

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By Danielle Jurman and Wilma Doedens

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ACRONYMS

CERF	Central Emergency Response Fund
CHW	Community Health Worker
COs	Country Offices
CPR	Contraceptive Prevalence Rate
DDR	Disarmament Demobilization and Reintegration
HFCB	Humanitarian and Fragile Context Branch (UNFPA)
HIV	Human Immunodeficiency Virus
HRP	Humanitarian Response Plan
ICPD	International Conference on Population and Development
ICPD PoA	ICPD Programme of Action
IARH kits	Inter-Agency Reproductive Health kits
IASC	Inter-Agency Standing Committee
IAWG	Inter-Agency Working Group on Reproductive Health in Crisis
IDPs	Internally Displaced Peoples
IUD	Intrauterine Device
IEC	Information, Education and Counselling
MDGs	Millennium Development Goals
MISP	Minimal Initial Services Package for Reproductive Health
MoH	Ministry of Health
NGO	Non Governmental Organization
PHC	Primary Health Care

PSB	Procurement Supply Branch (UNFPA)
RHSC	Reproductive Health Supplies Coalition
SDGs	Sustainable Development Goals
SRH	Sexual and Reproductive Health
STIs	Sexually-Transmitted Infections
TBAs	Traditional Birth Attendants
UNFPA	United Nations Populations Fund
UNICEF	United Nations Children Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

ABSTRACT

Background

The Inter-Agency Reproductive Health Kits for Crisis Situations are a set of pre-packaged emergency health kits that include all of the medicines, devices and commodities necessary to provide basic, minimum, lifesaving-services at the early phase of a humanitarian emergency. The United Nations Population Fund has been managing these kits, on behalf of the IAWG, since their creation in 1998, updating them every few years to ensure compliance with the latest evidence and solve logistical bottlenecks. Despite the progress made by UNFPA and partners in the Inter-Agency Working Group on Reproductive Health in Crisis there are still logistical challenges associated with these kits in ensuring access to timely, applicable and cost-effective reproductive health care in emergencies.

Methods

This mixed-methods evaluation on the Interagency Reproductive Health Kits for Crisis Settings, focuses on the causes and consequences of over-ordering and waste. This evaluation included primary data collection and analyses of a global field survey, and a thematic analysis of semi-structured key informant interviews conducted with individuals based in headquarters offices, regional offices and country offices. The survey elicited the feedback of those who ordered or use the kits, in order to improve the efficiency of the logistics system. The aims of the interviews were to understand the context of over-ordering and wasted health commodities and discuss the implications for various stakeholders.

Results

The research has highlighted some important considerations moving-forward on the process of procurement, distribution and utilization of the kits. Who is ordering, what is being ordered, where they are being ordered for, when they are being ordered and why they are being ordered all have significant implications on if kits will be over-ordered or wasted. Recommendations should be taken forward in order to make progress on the effective use of the kits in order to help the most number of people in crisis.

Conclusions

Investing in the capacity building and systems building for sustainable supply chain in countries needs to be a top priority to ensure that the right people, in the right contexts are ordering the right amount of kits for the right period of time. This will not only reduce over-ordering and waste but will ensure that timely and context-appropriate lifesaving medical commodities arrive where they are needed most.

Introduction

Background

While the provision of healthcare in emergencies has been at the core of the international community's humanitarian imperative since the Battle of Solferino,[1] reproductive health care was long relegated as a secondary concern.[2] The way wars are fought, and the contexts where humanitarian assistance is provided, has significantly changed since the time of Henri Dunant. Wars are no longer fought on the battlefield, state actors are not the only parties involved, conflicts go on and on without official declarations or resolutions, civilians are increasingly targeted, displacement can exist over generations and climate change is increasing the scale and frequency of natural disasters; healthcare in these contexts is no longer solely about battlefield emergency medicine.[3] As this transition occurred it became evident the in order to save as many lives as possible,[4] sexual and reproductive health (SRH) services needed to be included in the cadre of humanitarian assistance.

It is now widely accepted that access to a certain set of minimum SRH services enabled by pre-packaged emergency medical kits at the immediate onset of a humanitarian emergency is lifesaving and essential. It is also increasingly understood that women and girls in crisis are not just there to be protected, but are agents of change, peacebuilding and stability;[5] a key to the active participation of women and girls in these contexts is access to SRH services.[6]

However, in a world where conflicts, natural disasters and massive displacement are increasing, competition for limited resources means that essential SRH services, and particularly humanitarian logistics for SRH that allow for those services, are still considered by many as a secondary priority in humanitarian action.

Reproductive Health and Humanitarian Assistance

[1] "From the Battle of Solferino to the Eve of the First World War." *ICRC*, ICRC, 28 Dec. 2004, www.icrc.org/eng/resources/documents/misc/57jnvp.htm.
[2] Barot, Sneha. "In a State of Crisis: Meeting the Sexual and Reproductive Health Needs of Women in Humanitarian Situations." *Women Deliver*, Guttmacher Institute, 27 Mar. 2017.
[3] *World Humanitarian Summit Chair Summary*. Reliefweb, 2016, *World Humanitarian Summit Chair Summary*, p. 1. reliefweb.int/sites/reliefweb.int/files/resources/Chairs%20Summary.pdf.
[4] Out of the over 100 million individuals that were in need of humanitarian assistance ¼ were women and girls within the reproductive age range. "Shelter from the Storm." *UNFPA State of the World Population Report*, 2016. p. 6.
[5] UN Security Council, Security Council resolution 1325 (2000) [on women and peace and security], 31 October 2000, S/RES/1325 (2000).
[6] "Women, Peace and Security." *OHCHR | Women, Peace and Security*, UN OHCHR, www.ohchr.org/EN/Issues/Women/WRGS/Pages/PeaceAndSecurity.aspx.

Despite the mounting evidence of the need for reproductive health in humanitarian settings in the early 1990's, there were concerns around the lack of attention given to these lifesaving interventions.[7] In response to this concern, and following the International Conference on Population and Development in 1994, the Interagency Working Group on Reproductive Health (IAWG) in Crisis was founded in 1995 by over 50 national and international NGOs and UN agencies.[8] The objective of this interagency group was to increase access to good quality reproductive health services for displaced populations.[9]

In the months that followed the founding of the IAWG, a milestone advancement in reproductive health in humanitarian action, the Minimum Initial Service Package for Reproductive Health in Crisis Settings (MISP), was developed. The MISP is a set of activities to be implemented simultaneously and in a coordinated manner by appropriately trained staff in order to reduce the mortality and morbidity associated with reproductive health issues during emergencies. This is accomplished by providing priority reproductive health services from the very beginning of the humanitarian response to a crisis, including when refugee camps are being established (Figure 1).

The current objectives of the MISP are described in detail in the Inter-Agency Field Manual (IAFM) on Reproductive Health in Humanitarian Settings and can be summarized as:

- Identify an agency to lead the implementation of the MISP
- Prevent and manage the consequences of sexual violence
- Reduce transmission of HIV
- Prevent excess neonatal and maternal morbidity and mortality
- Plan for the provision of comprehensive RH services integrated into primary health care as soon as the situation permits

Additional priorities included ensuring the availability of contraceptives and managing the symptoms of sexually transmitted infections.

The MISP was included as a Sphere standard in 2004; this was followed in 2010 by the inclusion of the MISP as a life-saving intervention eligible for Central Emergency Response Fund (CERF) funding.[10] The MISP is currently under revision by the IAWG and the revised IAFM will be published in 2018.

[7] Chynoweth, Sarah K. "Advancing Reproductive Health on the Humanitarian Agenda: the 2012-2014 Global Review." *Conflict and Health*, BioMed Central, 26 Mar. 2015.
[8] *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings*, IAWG, 2010, p. 2.
[9] Judy Austin, Samantha Guy, Louise Lee-Jones, Therese McGinn & Jennifer Schlecht (2008) Reproductive Health: A Right for Refugees and Internally Displaced Persons, Reproductive Health Matters, 16:31, 10-21, DOI: 10.1016/S0968-8080(08)31351-2
[10] Central Emergency Response Fund: Lifesaving Criteria and Sectoral Activities Guidelines. 2010

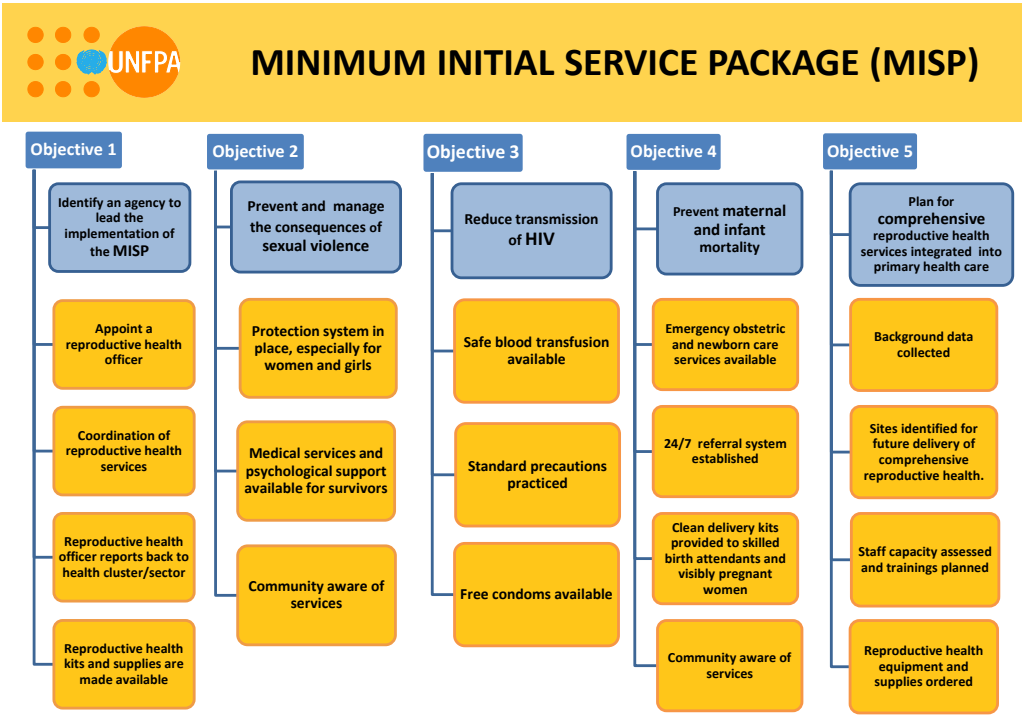


Figure 1: MISP Objectives[11]

Reproductive Health Kits: a solution to a complex problem

During crises the collapse of health systems including interrupted medical supply chain, the destruction of health facility infrastructure, death or displacement of healthcare personnel and a lack of access to functioning health facilities, can lead to increasing maternal and neonatal morbidity and mortality, the spread of STIs including HIV/AIDS, and unmanaged cases of sexual violence. The availability of essential drugs, basic equipment and other supplies needed to implement the MISP is crucial to being able to properly ensure that the minimum SRH services are in place from the very onset of a crisis. Being able to ensure the availability of these commodities in a timely manner comes with a number of significant logistical barriers.[12] One way to address these barriers is through the provision of pre-packaged kits that include all of the medicines, devices and commodities necessary to provide basic lifesaving-services until the early phases of the crisis are over.

During the Bosnian Crisis in 1992, where thousands of women and girls were subjected to sexual assaults, Marie Stopes International (MSI) developed and implemented the first pre-packaged reproductive health

11 "MINIMUM INITIAL SERVICE PACKAGE (MISP)." *UNFPA*, UNFPA, www.unfpa.org/sites/default/files/resource-pdf/MISP_Objectives.pdf.
12 *Inter-Agency Reproductive Health Kits for Crisis Situations: Manual*. UNFPA, 2008. p .2.

kits.[13] In the years following a number of different versions of these kits would be created.[14] In June of 1998 the first Interagency Reproductive Health Kits (IARH), developed by the members of the IAWG and managed by UNFPA, were available for procurement globally by partners working in crisis.[15]

Reviews of these kits were undertaken in 1999, 2003, 2005, 2010, 2013 and one is ongoing now in 2017 to assess the use, contents, and quality of delivery of the IARH Kits in the field.[16] Past evaluations have brought about changes in contents like: the inclusion of post-exposure prophylaxis (PEP) and child dosage for some medicines, the addition of misoprostol for post-abortion care and the simplification in the ordering and logistic process.[17]

Currently there are 12 specifically designed kits that are self-sufficient and respond to particular reproductive health service needs. The kits are designed to be used by health professionals and provide the necessary medicines, devices and commodities to implement the lifesaving services outlined in the MISP. The current objectives of the kits are to:

1. Reduce HIV transmission through ensuring safe blood transfusion, facilitating and enforcing respect for standard precautions, and ensuring the availability of free condoms;
2. Prevent and manage the consequences of sexual violence through the provision of clinical management of rape and working to protect populations;
3. Prevent excess maternal and neonatal morbidity and mortality through ensuring supplies to manage obstetric and newborn complications, providing clean delivery kits, and establishing referral mechanisms to ensure transport and communication are available;
4. Ensure the availability of contraceptives; and,
5. Provide syndromic treatment for STIs

Each of the 12 kits are designed for specific levels of a health system and for specific population sizes for a period of three months. The kits are categorized into three blocks, each block targeting a different health service delivery level (Table 1).

Table 1: Reproductive Health Kit Blocks[18]

Block 1: Community and Primary Health Care Level (100,000 people for 3 months)	
Kit 0	Administration/training supplies
Kit 1	Condoms (A and B)

13 Lynch and Gerrits, et al. "Reproduction, Globalization, and the State." *Duke University Press*, 2011. p. 228.
14 Inter-Agency Reproductive Health Kits for Crisis Situations: Manual. UNFPA, 2008. p. 2.
15 ibid.
16 2013 Evaluation of the Use of Inter-Agency Reproductive Health Kits for Crisis Situations. UNFPA 2011
17 ibid.
18 Inter-Agency Reproductive Health Kits for Crisis Situations: Manual. UNFPA, 2008. p. 10.

Kit 2	Clean Delivery Individual (A and B)
Kit 3	Post Rape Treatment
Kit 4	Oral and Injectable Contraceptives
Kit 5	Treatment of sexually transmitted infections
Block 2: Health Center or Hospital Level (30,000 people for 3 months)	
Kit 6	Clinical Delivery Assistance (A and B)
Kit 7	Intrauterine Device (IUD)
Kit 8	Management of miscarriage and complications of abortion
Kit 9	Suture of tears (cervical and vaginal) and Vaginal examination
Kit 10	Vacuum extraction delivery
Block 3: Referral Hospital (150,000 people for 3 months)	
Kit 11	Referral level kit for reproductive health (A and B)
Kit 12	Blood Transfusion

Despite the fundamental shift in the way reproductive health in emergencies is viewed from the 1990s to today there are still a number of challenges that the sector need to overcome. Thankfully there are also a number of opportunities for progress that have not existed before, enabled by the current political environment.

Challenges for Ensuring Timely and Quality Reproductive Health Care in Emergencies

Challenges to Research and Progress

There are a number of challenges to conducting research and making progress on ensuring timely and quality SRH care in emergencies. Gaps in data, a lack of prioritization for funding and challenges in expanding from MISP to comprehensive SRH continue to cause bottlenecks in countries.

Despite the upward trend of funding for reproductive health in emergencies[19] there are still large gaps in meeting the need for minimum services in fragile contexts. Additionally, one-year funding cycles make it difficult for countries to plan, procure, and capacity-build effectively. Data in humanitarian emergencies is difficult to collect because of the crisis itself and a lack of available funding.[20]

Finally, there continues to be major challenges in supporting countries transitioning from MISP to comprehensive SRH. Countries continue to provide the MISP and procure IARH kits despite the crisis stabilizing. The IAWG's 15th annual meeting in 2015 had a focus on this transition, but there continues to be a gap in guidance and best practices for COs. Consequently, countries' being stuck in the MISP phase of service delivery, where they continue to procure IARH kits, can affect global supply levels of kits for acute emergencies.

Challenges for the Reproductive Health Kits

There are also a number of logistical challenges that are specific to the provision of emergency medical kits, including the IARH kits, that will be demonstrate throughout this report.

Because of the instability and unpredictability of humanitarian and fragile contexts it is often difficult to predict need in emergencies. The MISP and IARH kit calculators can provide estimations but different country contexts mean that they may not always be accurate. This is particularly the case in contexts with weak population figures, migrating populations or large portions of areas inaccessible to humanitarian actors.

Suppliers may not be familiar with difficulties at the country-level in fragile settings. This can lead to issues around packaging and flexibility to UNFPA-requests for adaptations. Stock-outs because of large procurement orders and a lack of capacity by UNFPA suppliers to ensure that the commodities are available at that volume can cause delays in orders being processed. This, followed by in-country regulations on the importation of medical commodities and difficulties in last-mile delivery, due to the terrain or the crisis itself, can delay the kits reaching the health facilities.

Despite the increased recognition of the dire need to fund SRH research and data collection and to address supply-chain and logistics issues in humanitarian contexts, the lack of prioritization of data collection in fragile settings and the numerous logistical challenges for conducting research in these settings continue

[19] Tanabe, Mihoko, et al. "Tracking Humanitarian Funding for Reproductive Health: A Systematic Analysis of Health and Protection Proposals from 2002-2013." *Conflict and Health*, BioMed Central, 2 Feb. 2015.
[20] *World Humanitarian Summit Chair Summary*. Reliefweb, 2016, *World Humanitarian Summit Chair Summary*. reliefweb.int/sites/reliefweb.int/files/resources/Chairs%20Summary.pdf

to leave a gap in high-quality data to programme from. This gap in reliable data makes conducting accurate needs assessment difficult and can negatively impacts programming, monitoring and advocacy.[21]

Finally, medical supplies logistics in emergencies is very difficult because of short expiration dates, cold-chain requirements, regulations in-country on medicines and few suppliers prequalified around the world to procure from. There is a significant lack medical logisticians and pharmacists to procure and manage in-country and those currently doing the procurement and management have a lack of training on ordering or using the kits, leading to an inefficient use of commodities. Despite poor commodity management being one of the critical gaps identified in the 2014 IAWG global review,[22] it continues to be difficult to get donors to fund improvements to logistics and ordering, be it structural improvements, training or personnel.

Opportunities for Progress

Today reproductive health indicators in fragile contexts are alarming. Extremely fragile states have less skilled attendants at birth, more adolescent pregnancy and lower contraceptive prevalence.[23] As of 2015 approximately three fifths of maternal deaths globally occur in humanitarian and fragile contexts.[24] Despite all of the challenges, there are a number of opportunities available to us now that have not existed or had this kind of momentum before.

Bridging the Humanitarian-Development Divide

The contexts that are considered 'humanitarian' and 'development' settings are being blurred because of the urbanization of displacement[25] and protracted nature of many crises. Bridging the humanitarian-development divide is now seen as an essential step to fix many of the issues in service delivery and capacity building in-country. The SDGs and the 2030 agenda's universal targets, and focus on 'leaving no one behind,' mean that it is now clear that international community will not fulfil the 2030 agenda unless real progress is made in fragile settings. Achieving the SDGs by 2030 means that humanitarian and development actors must work together better to more effectively respond to the needs of communities around the world. For SRH the momentum that exists on bridging the humanitarian-development divide is strong.

[21] "World Humanitarian Data and Trends 2015." *ReliefWeb*, UNOCHA, 6 Dec. 2015. p.70-71.reliefweb.int/report/world/world-humanitarian-data-and-trends-2015.
[22] Casey, Sara E, et al. "Progress and Gaps in Reproductive Health Services in Three Humanitarian Settings: Mixed-Methods Case Studies." *SpringerLink*, BioMed Central, 2 Feb. 2015.
[23] "Shelter from the Storm." *UNFPA State of the World Population Report,* 2016. p. 26.
[24] Ibid. p. 2.
[25] United Nations High Commissioner for Refugees. "Urban Refugees." *UNHCR,* UNHCR, www.unhcr.org/urban-refugees.html.

- *The Granada Consensus* called on partners to look at SRH in protracted crisis and contexts that have transitioned into recovery particularly falling inside the humanitarian development nexus.[26]
- The *Abu Dhabi Declaration* called on partners to ensure quality service availability for reproductive, maternal, newborn, child and adolescent health throughout the life course and along the humanitarian-development spectrum;[27]
- The *Sendai Conference on Disaster Risk Reduction* specifically outlined the inclusion of SRH services as an essential component of preparedness for resilience in crisis;[28] and,
- The *World Humanitarian Summit* had a focus on shifting 'from delivering aid to ending need[29]' and ensuring multi-year financing is available in humanitarian contexts;

Making progress on bridging the humanitarian-development divide in planning, implementation and capacity building for the future has the ability to enable real work on improving the transition from MISP to comprehensive SRH. Working on planning with development partners and ensuring multi-year funding can allow countries to work on their own supply chains for bulk procurement, ensuring kit procurement is left to acute emergencies. Working on this coordination and dialogue between humanitarian and development actors can also improve predictions and risk-reduction related to preparedness of health systems and the pre-registration of drugs, and prepositioning of commodities, for crisis.

AIMS AND OBJECTIVES

Aim

The aim of this research is to implement, and analyse the data collected through, a global UNFPA field-survey on the use of the IARH kits, and to conduct and analyse key informant interviews with relevant global-level, regional level and country level experts, in order to make policy recommendations on preventing over-ordering and waste.

Objectives

- To look at perceptions of over-ordering and waste of the IARH kits
- To determine the main issues around IARK kit procurement and management that lead to over-ordering and waste

[26] WHO, et al. "Sexual and Reproductive Health during Protracted Crises and Recovery: Granada Report." *WHO,* World Health Organization, 2011, www.who.int/reproductivehealth/publications/emergencies/hac_bro_2011/en/.
[27] *The Abu Dhabi Declaration*. World Health Organization, February 2015 www.who.int/pmnch/media/news/2015/abudhabi_declaration.pdf.
[28] *Sendai framework for disaster risk reduction 2015–2030*. UNISDR (United Nations International Strategy for Disaster Reduction). 2015. p. 19 (Article 30J). http://www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf.
[29] *World Humanitarian Summit Chair Summary*. Reliefweb, 2016, *World Humanitarian Summit Chair Summary*. reliefweb.int/sites/reliefweb.int/files/resources/Chairs%20Summary.pdf

- To make multi-sectoral policy recommendations on ways to reduce over-ordering and waste

The report will contribute to the current IARH kit technical review process in 2017.

MATERIALS AND METHODS

In order to address these aims and objectives a mixed-methods evaluation was conducted on the ordering habits of the IARH kits, with a focus on the causes and consequences of over-ordering and waste. This mixed-methods study included the implementation of a mixed quantitative-qualitative survey, conducting data analysis on the survey, and undertaking a series of semi-structured key informant interviews followed by a thematic analysis.

Information Collection

Survey Design

In 2017 another review of the IARH Kits is being conducted; in order to inform this process UNFPA conducted a survey on the logistics and content of the kits. The 2017 survey assessed the IARH kits in 2015 and 2016.

The 2017 survey builds off of the survey sent out by UNFPA to partners in 2013 with significant additions and edits. The survey elicited the feedback of those who ordered or used the kits between 2015 and 2016 in order to ensure the adequacy of the equipment and medications provided, improve the efficiency of the logistics system, and engage in interaction with end users. The survey was updated by HFCB, along with significant contributions from the IAWG and UNFPA Procurement Services Branch (PSB). The survey was created and sent out using the survey monkey online platform and some partners in regions with inconsistent internet access were given PDF versions of the survey for convenience.

Following the structure of the previous surveys, the questionnaire was divided into two sections:

- Part 1: collected feedback on the logistics, distribution and management of the IARH kits.
- Part 2: collected technical feedback on the quality, usefulness and quantity of the items in each kit

Key Informant Interview Topic-Guide Design

Key informant interview topics started by building off of the responses from the survey and some early analysis of the data. Following the initial creation of a topic guide, a basic literature search was conducted. The search yielded articles relevant to background, but as far as the author could find there are no peer-

reviewed articles focused on the waste related to the logistics of the IARH kits, medical kits, cholera kits or nutrition kits. The relevant grey literature included previous UNFPA kit reviews, IAWG, UNICEF and WHO reports.

The key informant interview topic-guide was then finalized and for each interview the specific questions were modified based on that person's role, experience and the flow of the conversation. The author chose to use a semi-structured open-ended interview style to allow the participants to discuss the areas that they felt were important and illuminate areas that the author may not have previously thought about. According to Berg, a semi-structured interview "allows for in-depth probing while permitting the interviewer to keep the interview within the parameters traced out by the aim of the study."[30] Semi-structured interviews allow for greater flexibility and dialogue between the interviewer and the participant. Participants were given a full briefing in which their role in the data collection was reiterated and informed consent was obtained. Each interview lasted around 30 minutes and was recorded, except for one interview that was done via email due to internet connection issues. All informed consent documents were obtained and saved by the author. The interviews were then transcribed and a thematic analysis on the content of the interviews was undertaken.

The aim of the interviews was to understand the main issues around the existence and causes of over-ordering and wasted SRH commodities and to discuss the implications of over-ordering and waste for various stakeholders.

Sampling Frame

Survey

The survey was sent by UNFPA via email to all consignee details that were recorded by PSB for an order of the IARH kits during 2015 and/or 2016. The people who participated in the survey were responsible for ordering, managing, distributing or implementing the IARH kits in country offices. These contacts, as well as UNFPA Country Office and Regional Office humanitarian focal points, were asked to complete the survey and forward it to all relevant partner organizations that were supplied with IARH kits. Additionally, the IAWG sent out the survey to their list serve. Snowball sampling was then encouraged to ensure that the appropriate person at each organization was responding to the survey, and at country-level to try and reach those in the sub-national level. Because of the nature of the work, the people who could potentially respond to this survey are a very small pool of specialized individuals. While this means a smaller sample

[30] Berg, Bruce L., and Howard Lune. "Qualitative Research Methods for the Social Sciences." *Qualitative Research Methods for the Social Sciences*, Pearson, 2017, pp. 39.

size, the sample that does respond will be very rich. An initial deadline of July 19th 2017 was given; the deadline was subsequently extended to June 26th 2017.

Key Informant Interviews

The semi-structured key informant interviews were broken down into three sections; there was global-level key informant interviews, regional office key informant interviews along with focus group discussions, and country-level key informant interviews. The interviews were conducted via skype or in person with individuals through purposive sampling; individuals were selected who the author felt could shed light on the issue of over-ordering and waste of the IARH kits or other emergency medical kits. The author selected individuals using the recommendations and resources of UNFPA, her contacts in the humanitarian community and through the London School of Hygiene and Tropical Medicine.

In addition to the IARH kits, these interviews included experts in the interagency emergency health kits, cholera kits, nutrition kits or those who self-procured the IARH kit content. Key informant interviews were recorded and transcribed. One key informant interview was conducted over email with an individual with limited internet access due to the conflict in which they were working. Similarly to the survey, the people who could be considered for a key informant interview are a small number of specialized individuals. All of those interviewed are people in positions of authority who are decision makers for emergency health kits, those who are professionals who are responsible for policy and strategy related to these kits, and those responsible for managing and implementing the IARH kits in the field. Because of the small amount of individuals that could be included, any further details about their profiles provided by the author could potentially identify who they are.

Ethics

All survey participants gave informed consent via the survey when they participated separately for section one and section two. All key informant interview participants were given information on the research being conducted, and their role and rights in relation to their participation; all of the individuals who participated gave informed consent.

Data Analysis

Survey

In total 92 responses to the survey were recorded in the 18 days the survey was open. Out of that 92 that opened the survey 25 went on not to answer any questions, leaving 67 as the total number of survey participants. Out of the 67 that went on to complete the survey, responses were recorded from 50 different

countries distributed between all UNFPA regions (West and Central Africa, East and Southern Africa, Asia and the Pacific, Arab States, Eastern Europe and Central Asia and Latin America and the Caribbean); all Level-3 humanitarian emergencies during 2015 and 2016 were represented.[31] In addition, there were a small number of respondents based at regional or headquarter level (Figure 2).

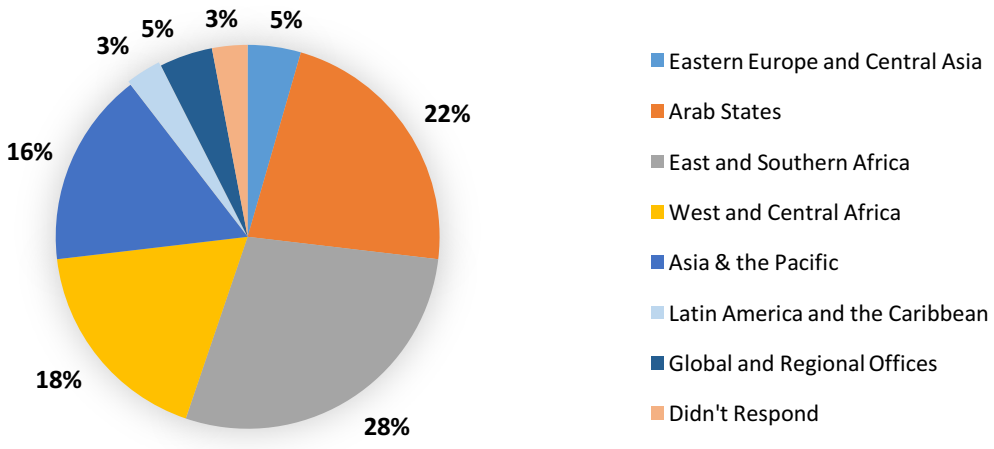


Figure 2: Survey Responses by UNFPA Region

The majority of respondents came from UNFPA country offices, the rest were distributed between different international and national actors (Figure 3).

[31] L3 emergencies included Iraq, Yemen, Syria, Central African Republic and South Sudan

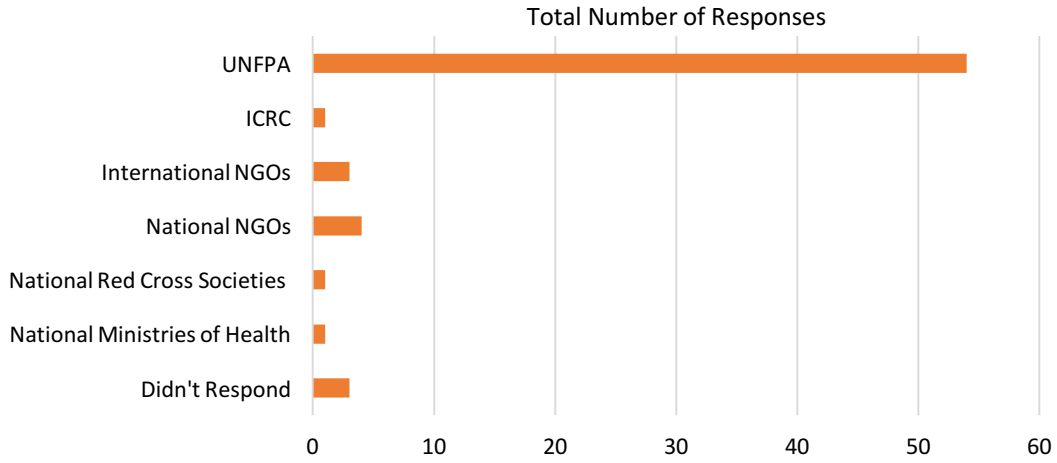


Figure 3: Survey Responses by Organization

On average 52.69 people answered each question in Part 1 (95%CI 49.73 to 55.65), given that not every question is applicable to each respondent this is to be expected. Part 2 response rates varied because different kits were ordered by different survey respondents (μ=25). Participants identified as one or more of the following categories:

- I ordered kits (79.03%)
- I managed distribution of kits (64.52%)
- I managed kits at the health facility or pharmacy level (11.29%)
- I used kit supplies to provide health services (12.90%).

Key Informant Interviews

A total of 19 semi-structured key informant interviews were undertaken with individuals at the global, regional and country-level in UNFPA and with other partners. The interviews we broken down into three sections; there was global-level key informant interviews (n=7), regional office key informant interviews (n=1) along with focus group discussions (n=4), and country-level key informant interviews (n=11). The demographics of the key informant interviews included: 11 from the UN, 3 from INGOs, 2 from national NGOs, 1 from a Red Cross Society and 2 from a national government. In addition, four simultaneous focus groups took place with a mix of regional and country level UN and INGO partners.

The regional focus group discussions took place in a region prone to conflict (onset and protracted) and one in-country mission took place in a different region prone to conflicts and natural disasters. All of the key informant interviews were conducted in English. While most individuals had a strong command of the English language, some interviews during the in-country mission required basic translation; this was assisted by in-country UNFPA staff.

Key Informant Interview participants included those responsible for:

- Global Kit Procurement and Logistics (IARH Kits and other Emergency Medical Kits)
- Global Humanitarian Technical Guidance for IARH Commodities
- Regional Humanitarian Technical Guidance for IARH Programming
- Regional Humanitarian Logistics Management
- Country Humanitarian National IARH Kit Procurement and Logistics
- Country Humanitarian National RH Programming
- Country Humanitarian Sub-National RH Programming
- Country Humanitarian National and Sub-National Implementing Partners

RESULTS AND ANALYSIS

Part 1: Survey Analysis – Logistics

There was a lot of rich findings that came of the data analysis. The survey looked at the perspective of those in the field on the IARH kits. The analysis highlighted a number of aspects that are important for policy recommendations on reducing over-ordering and waste related to procurement, management, training and monitoring.

Procurement Trends and Financing

There are three different types of procurement that were identified in the survey; respondents were procuring for either immediate distribution in crisis, prepositioning in the event of a crisis or for more stable contexts. Almost 50% of respondents ordered kits in both 2015 and 2016 (Figure 4), following the trend that many countries are continuing to face crises that require longer response times or cyclical natural disasters requiring responses year after year.

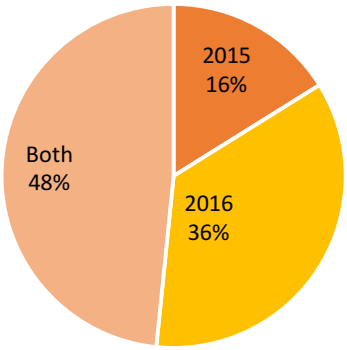


Figure 4: IARH Kit Procurement Orders by Year

Respondents are also procuring for the purposes of protracted emergency response/chronic or cyclical natural disasters/non emergency contexts, equally to sudden onset emergencies (Figure 5). Additionally, while emergency response is still the most reported single reason for ordering the kits emergency preparedness, post-emergency/chronic, reconstruction and development together are contexts reported for procurement more than emergency response (Figure 6).

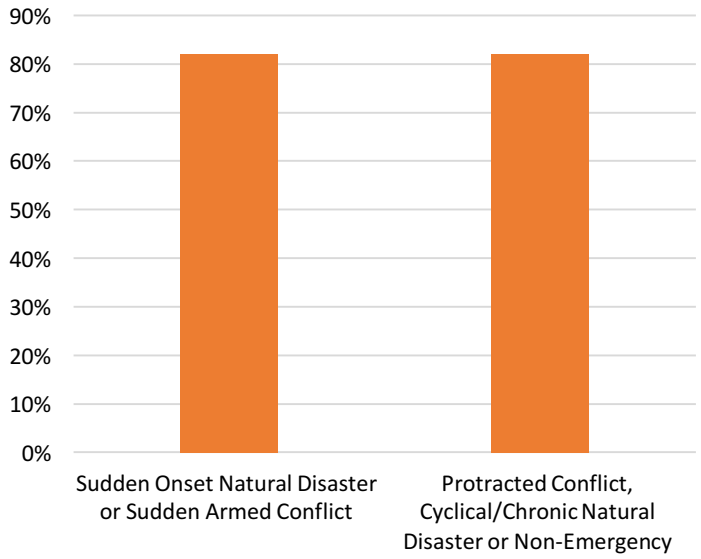


Figure 5: IARH Kit Procurement Orders By Context

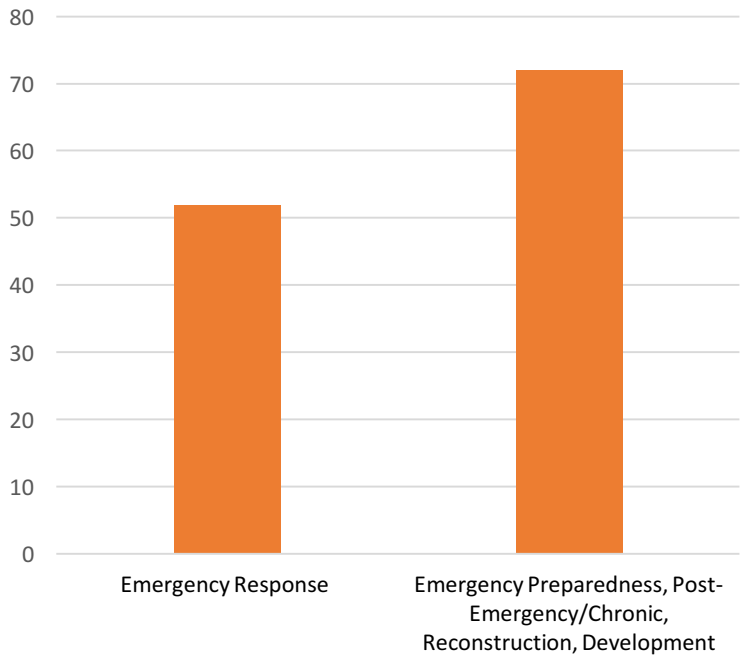


Figure 6: IARH Kit Procurement Orders by Purpose

While IDPs and Refugees in Camp Settings are the largest affected population group targeted with the kits, the host population was also reported as a recipient by 62.90% of respondents.

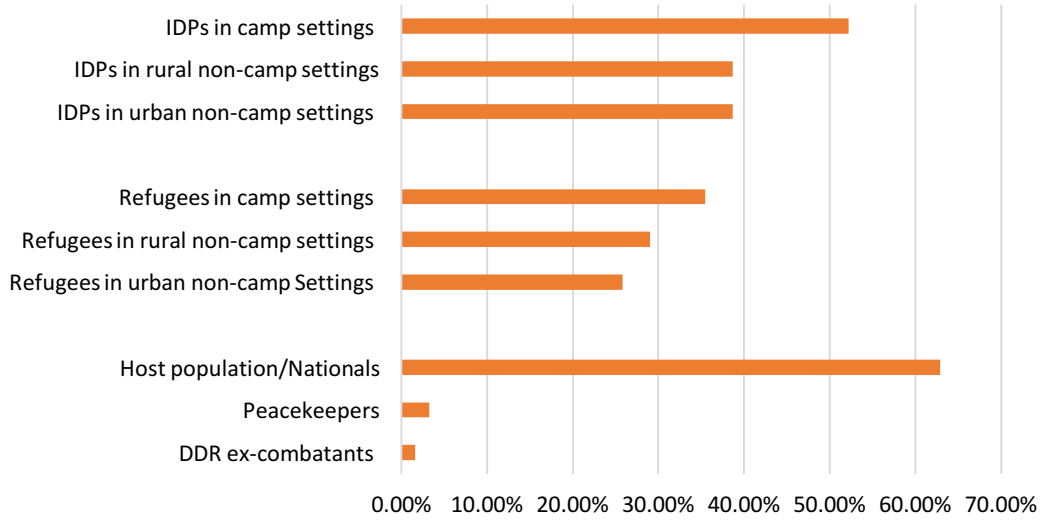


Figure 7: Targeted Population by Status and Location

Respondents reported a number of different funding sources for the procurement of the kits (Figure 8). This significant percentage of funding coming from the interagency funding mechanism highlights the ongoing coordination in planning and funding for the procurement of the kits.

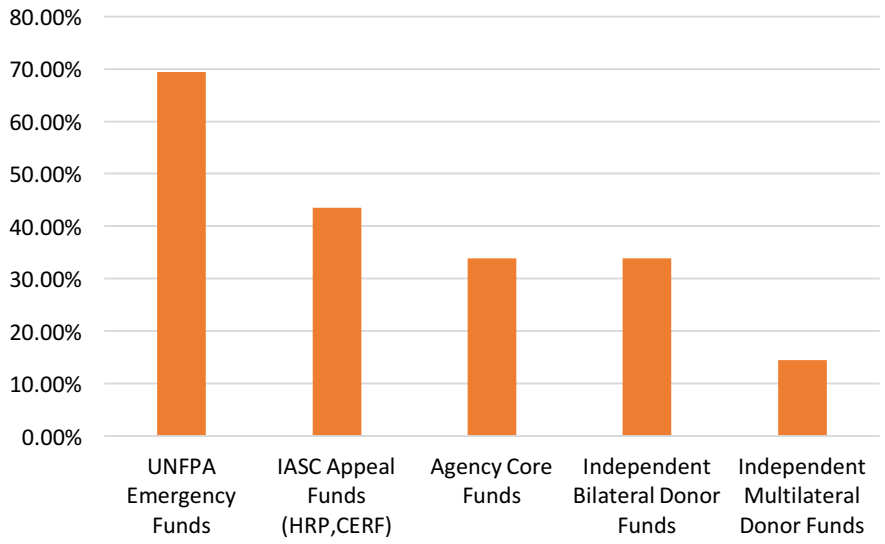


Figure 8: Funding Sources for the IARH Kits

Procurement was also reported as a coordinated process; the majority of respondents reported coordinating with more than two partners when ordering IARH kits. Respondents reported working with the Health Cluster (56.45%), the RH Working group (46.77%), the Government (61.29%), UN Agencies (40.32%), NGOs (40.32%) and a few others including the Red Cross (Figure 9).

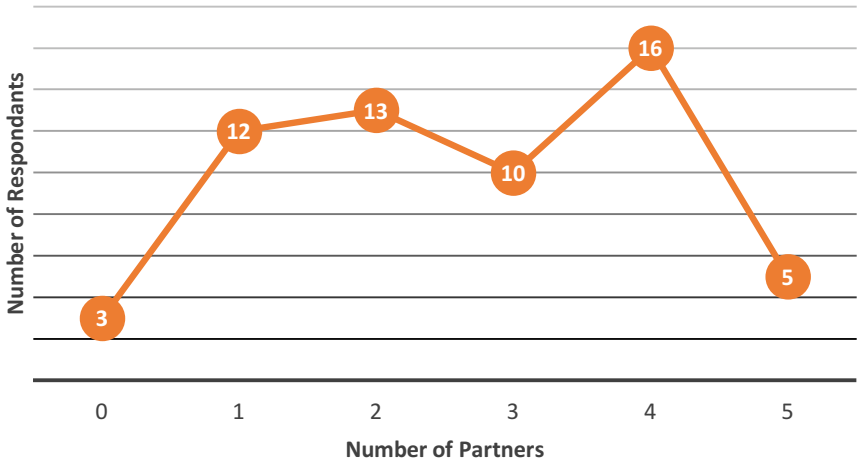


Figure 9: Number of Reported Partners in Procurement of the IARH Kits

Additionally, in country logistics is also an area reported with interagency coordination in customs clearance, warehousing, in country transport and distribution. 45.00% of respondents reported coordinating with and getting support from other agencies in-country. Along with UNFPA, respondents reported working with National NGOs, Ministries of Health and other government agencies, National Red Cross and Red

Crescent Societies, International Rescue Committee, Médicines du Monde, UNHRD, OCHA, IOM, WFP, Logistics Cluster, UNICEF, UNHCR, UNOPs and private logistics companies or forwarding agencies.

Ordering Process – MISP Calculator

When determining the number of kits to order at the onset of a crisis the MISP calculator is often used to make estimations on populations in need in a specific context. All respondents reported basing their procurement orders on the need in the MISP Calculator,[32] however there were a number of respondents who reported adapting these estimates to fit the needs of their contexts. Adaptations included:

1. Assessments or MoH reports to determine more context specific estimations
2. Affected population numbers
3. Health facility data from catchment areas
4. Adjustments based on previous RH Kit orders
5. Overestimations of the MISP because of large waves of displacement into camps
6. Overestimations to preposition for openings in the humanitarian corridor to reach besieged areas
7. Health Facility consumption data for CMR service provision (Kit 3)
8. Partner, project manager, or field staff expert opinions
9. Programme data and projections for protracted crises
10. Regional warehouse capacity

Many of these adaptations speak to the limitations of using the MISP calculator to determine the number of kits to procure, as reported by some of our respondents. One respondent reported in response to an open-ended question on the survey, "unfortunately [the] MISP calculator and MISP concept is outdated. MISP is designed in 1990s, which was [much] more focus on big camp[s], in contrary to the current situations, which is mostly urban displacement." Another respondent reported that in their context they had to adapt due to the higher demand for family planning and IUD. These adaptations are also in line with the changing contexts and purposes offices are procuring the kits for including more protracted situations, prepositioning and non-camp target populations.

Ordering Process – Over Ordering/Expiration

While the kits are designed for immediate distribution, prepositioning of the IARH kits are increasingly becoming a reason for procurement.

[32] "MISP Calculators." *Welcome to the Inter-Agency Working Group (IAWG),* UNFPA, iawg.net/resource/misp-rh-kit-calculators/.

Immediate Distribution

Out of all of the respondents who reported procuring for immediate distribution 36.4% of them reported having expired kits or medicines. 'Kits nearing their expiry date were distributed to partners for free' and 'kits nearing their expiry date were disposed of in line with medical waste guidelines and replaced' were reported as the two largest ways partners dealt with expiring commodities. A small number of partners also reported that kits that are expired remain in the storage facilities.

Prepositioning

Prepositioning of the IARH kits are increasingly becoming a reason for procurement; 56.25% of respondents reported procuring for the purpose of prepositioning. When prepositioning kits for the future, partners should have a plan on what to do with these kits once they are nearing expiration. Despite having a plan (Figure 10) some participants reported not always being able to follow this plan for a number of reasons; for example, kits were stored in warehouses awaiting new MoH guidelines for medical waste disposal.

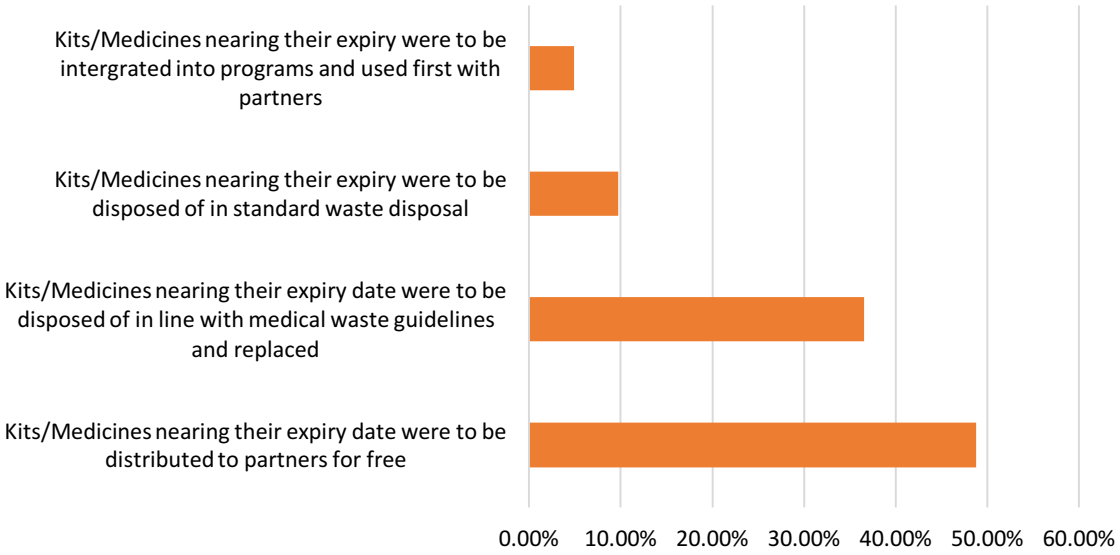


Figure 10: Reported Plans for Prepositioned IARH Kits Nearing Expiration

In-Country Bottlenecks

A number of respondents particularly pointed to issues around customs and regulation as reasons for delays in arrival and distribution. 37.50% of respondents reported issues around importing regulations or other policy requirements delaying customs processing. A number of respondents commented on the need for medicines to be preregistered with the government and for UNFPA in particular to work better with

governments to enable smooth and quick importation of commodities. 16.07% of respondents also reported that there were insufficient warehousing facilities available for the volume of kits ordered.

A number of the kits include medicines that require a continuous cold chain. Out of all of the respondents that reported ordering kits that required cold chain, 65.96% reported no break in the cold chain. Out of the remaining respondents who reported a break in the cold chain, the most reported reasons were a break in cold chain during customs holding at arrival (14.89%), a break in cold chain in the local storage facility (14.89%), a break in cold chain at the final health facility or pharmacy (14.89%) and a break in cold chain during the transport in-country.

Overall there seems to be high satisfaction with the ordering, packaging, labelling and arrival, with 11.86% of respondents reporting a problem with goods they had received not being in good order.

Monitoring and Training

Monitoring

75% of respondents reported tracking and monitoring the kits after onward in-country distribution. While 52.83% of respondents reported unpacking and storing the kits at the health facility level, there are still a significant number of respondents who reported not unpacking the kits or not having knowledge of what is happening at the health facility level (Figure 11).

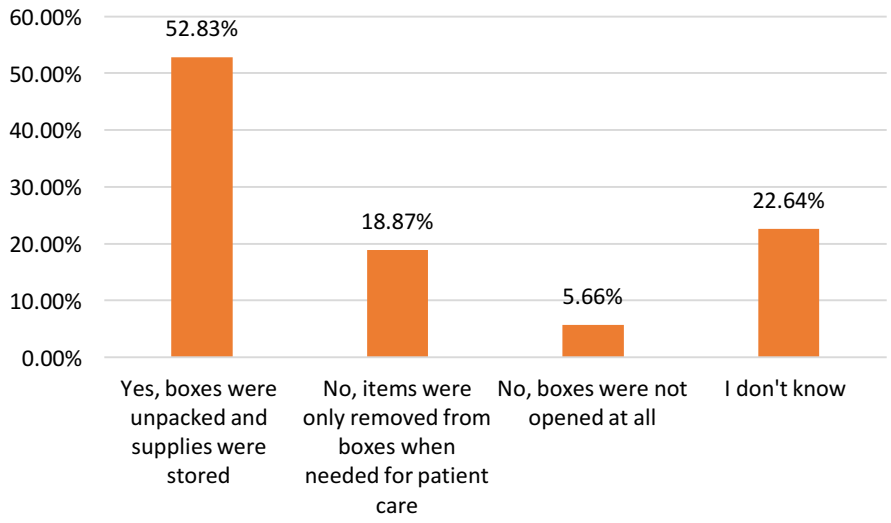


Figure 11: Respondents Reporting that IARH Kits were Unpacked at the Health Facility

Training

Monitoring and training is important for proper utilization of the commodities inside the kits. Despite the role respondents played in the ordering, management or use of the kits, 45.28% of respondents reported never receiving training on ordering or use of the kits (Figure 12). Additionally, out of those who reported that there was a medical supplies stock keeping mechanism in place at the health facility level, 55% reported never having received a training on medical supplies stock keeping.

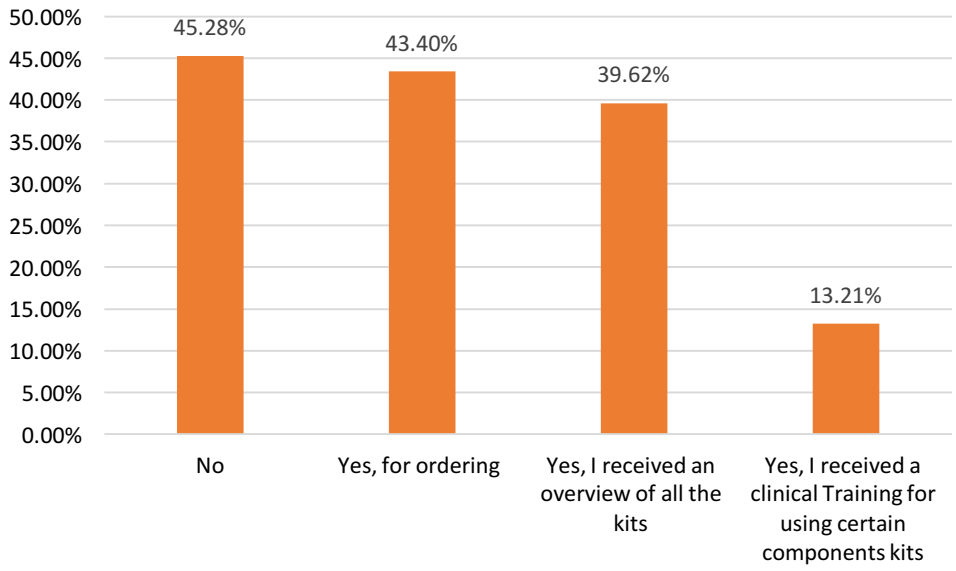


Figure 12: Training on Ordering or Usage of the IARH Kits

Information Education and Communication Materials

72.34% of respondents found all of the Information, education and communication (IEC) materials that are provided with the kits helpful. 17.02% of respondents reported that some of the IEC materials were helpful; particularly many of these respondents recommended including an Arabic version of the materials to be standard in the kit inserts along with English and French. 54% of respondents reported that they, or another partner, translated the materials for all or certain languages and cultures in their contexts. Additionally, some respondents recommended including more infographics and videos on the kit content.

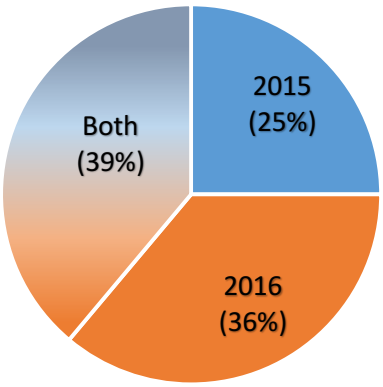
Part 2: Survey Analysis – Content

The recommendations that came out of the content component of the survey are discussed by the technical IAWG partners undertaking the revision of the contents of the RH Kits. Several of these recommendations align with recommendations in changes that are under advisement. Each of the recommendations from each kit were mentioned by a small number of respondents (1-3) unless specifically stated.

Kit 1: Condoms – Part A: Male

Contents:

Male condoms	17,280
Leaflets about the use of male condoms	English and French (400)



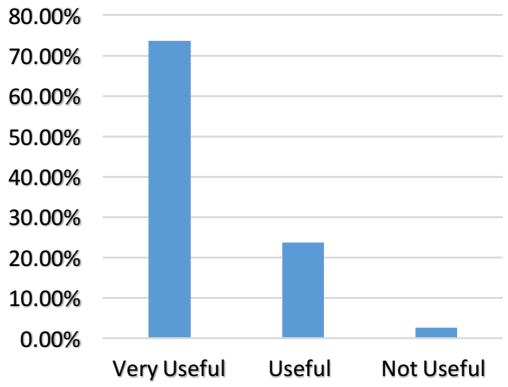


Figure 13: Procurement by Year

Figure 14: Usefulness

Data Summary:

10.81% of respondants reported problems using the kit that included the need for more orientations and information sessions to combat cultural sensititvity, ensuring that condoms in the kit have approval from drug authorities in-country and the size of the condoms being too large for some end users.

Summary of Respondant Recommendations:

1. Include condom demonstators
2. Include lubricant
3. Brand all condoms with UNFPA logo

Kit 1: Condoms – Part B: Female

Contents:

Female condoms	540
Leaflets about use of female condoms	Multilingual (25)

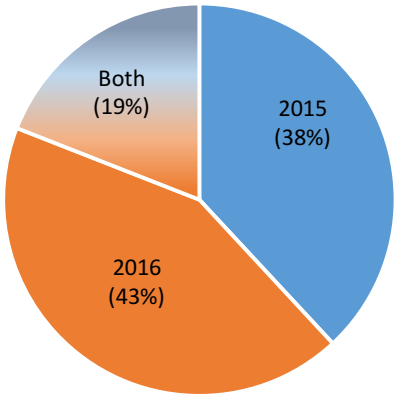


Figure 15: Procurement by Year

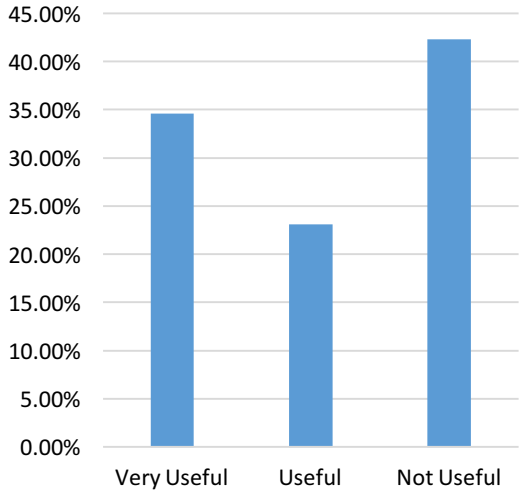


Figure 16: Usefulness

Data Summary:

25.00% of respondants reported problems with using the kit, all of whom reported that female condoms were not used or socially acceptable in their contexts. Despite some respondants procuring to try and encourage uptake, the most frequent comment from respondants (42.86%) from multiple regions and contexts was that there is no uptake and they are not used.

Summary of Respondant Recommendations:

1. Low usage of female condoms (8)
2. Include condom demonstrators
3. Include lubricant

Kit 2: Clean Delivery - Part A: Individual Delivery Disposable

Contents:

200 of each item, packed as separate packages	Bag, toilet soap bar, drawsheet, razor blade, umbilical tape, cotton cloth, gloves
Pictorial instruction sheet	1

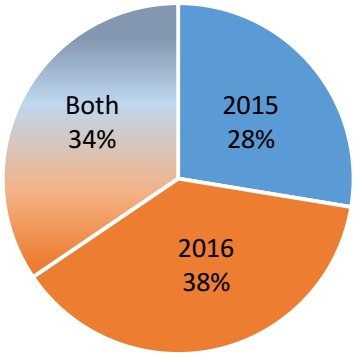


Figure 17: Procurement by Year

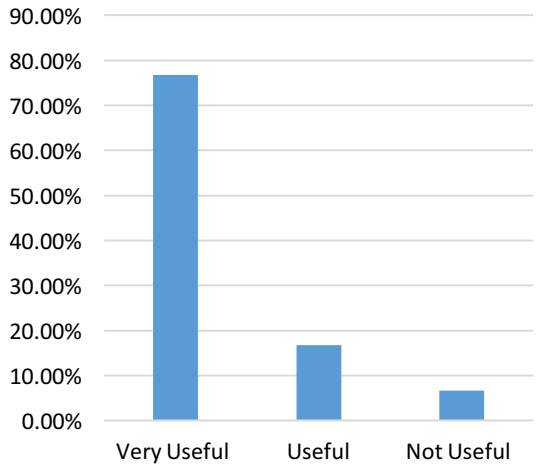


Figure 18: Usefulness

Data Summary:

96.55% of respondents did not encounter any problems using this kit. One respondent reported that in their context the MoH encouraged clean delivery kit over this kit to encourage home delivery.

Summary of Respondant Recommendations:

1. Include blanket, item of clothing and diapers
2. Include alcohol
3. Create IEC materials for MoH
4. Include apron for birth attendant
5. Add more gloves

Kit 2: Clean Delivery - Part B: Birth Attendant (Reusable)

Contents:

Bag, shoulder UNFPA logo	5
Gloves, examination, single use	5
Flashlight LED	5
Apron, reusable	5
Poncho, wet-weather	5

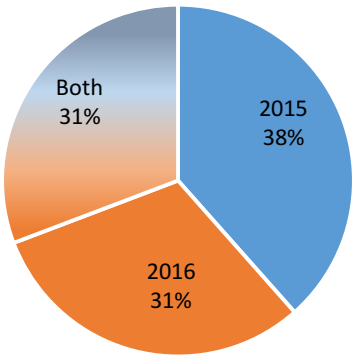


Figure 18: Kit Procurement by Year

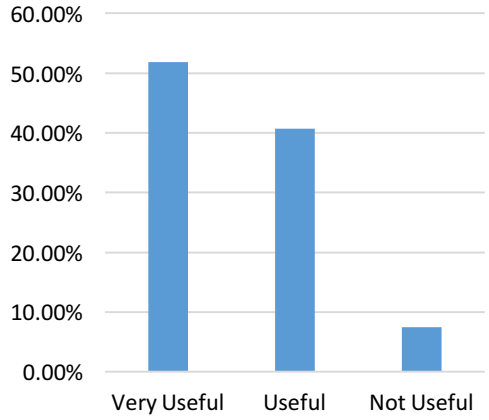


Figure 19: Usefulness

Data Summary:

No respondants reported that any items in this kit were unnesessary. One respondant reported that in their context (an L2 emergency) there was high turn over of attendants, so in order to enable kit usage there needs to be more trainings.

Summary of Respondant Recommendations:

1. Add more gloves
2. Add Ring forceps, different sizes of speculum
3. Add reusable mucus extractor (penguin)
4. Add two-three pairs of batteries

Kit 3: Post-Rape Treatment

Contents:

Medicines	Levonorgestrel, Azithromycin, Cefixime, Zibovudine/Lamivudine, Zibovudine, Lamivudine,
Medical devices, renewable	Pregnancy tests, bags for drugs
Post-rape care checklist for women, men and children	English (1) / French (1)
Clinical management for survivors of rape: a guide to the development of protocols for use in refugee and internally displaced situations	English (1) / French (1)
EC patient info leaflet	English (2) / French (2)
PEP treatment protocol and patient info leaflet	English (1) / French (1)

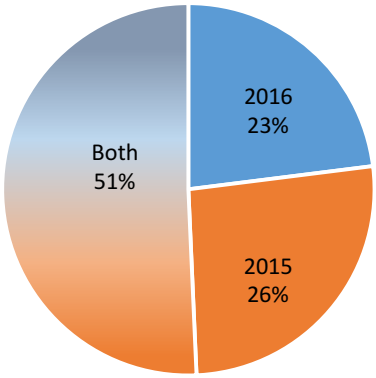


Figure 20: Kit Procurement by Year

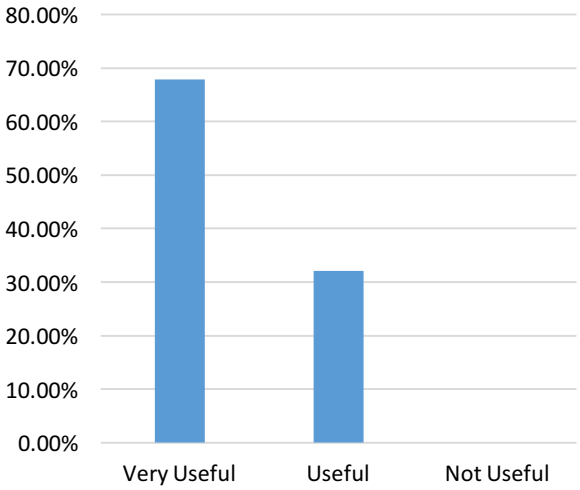


Figure 21: Usefulness

Data Summary:

7.14% of respondents reported a problem using the kit, particularly they reported that clinicians were not trained on the kits and that some of the medications were not registered in the drug authority of the country. Additionally, Cefuroxime was reported as having too short a shelf life.

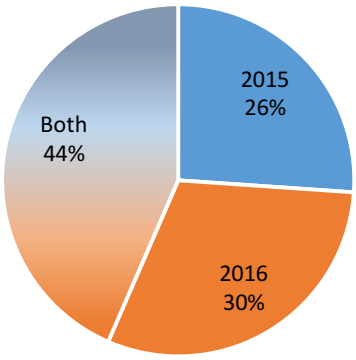
Summary of Respondant Recommendations:

1. Add HIV Rapid Tests
2. Add Nevirapine for paediatrics
3. Consider another dosage strength for Azithromycin
4. Have smaller kits (10 cases each or individual PEP/rape kits) for convenience and confidentiality

Kit 4: Oral and Injectable Contraceptives

Contents:

Medicines	Ethinyestradiol / Levonorgestrel, Levonorgestrel, Medroxyprogesterone Acetate, Chlorhexidine
Medical devices, renewable	Syringe, needle, cotton wool, safety box
Family planning, a global handbook	English (1) / French (1)



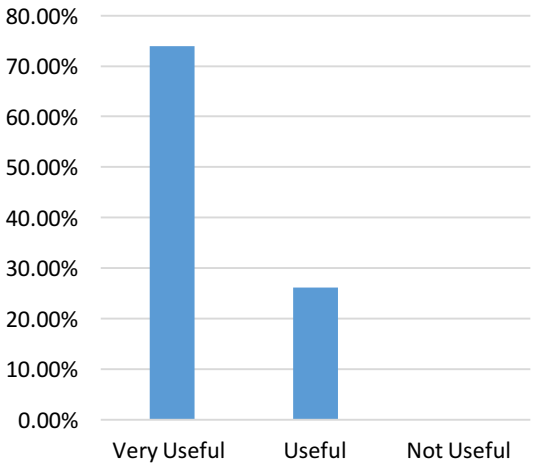


Figure 22: Kit Procurement by Year

Figure 23: Usefulness

Data Summary

91.30% of respondents reported no problems using this kit. Problems that were reported centred around import restrictions on EC (in an L3 emergency), or lack of registration of EC in-country. 100% of respondents reported that all items in this kit were necessary and 91.30% of respondents reported that the quantity levels were adequate.

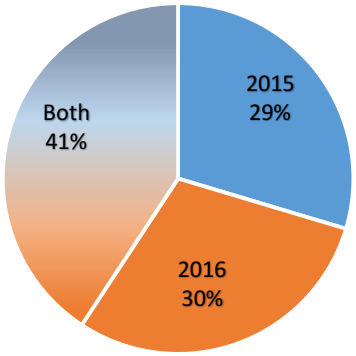
Summary of Respondant Recommendations:

1. Add more Ethinylestradiol/Levonorgestrel combined pill
2. Add family planning job aids for community health workers
3. Add Implanon as a method

Kit 5: Treatment of Sexually Transmitted Infections

Contents:

Genital Ulcer Syndrome treatment	Treatment 50 people
Urethral Discharge Syndrome	Treatment for 125 people
Vaginal Discharge Syndrome	Treatment for 75 people
Condoms	Male (2880) / Female (90)
Medical devices, renewable	Syringe, needle, cotton wool, safety box, bag
Leaflet on the use of male condoms	English (100) / French (100)
Leaflet on use of female condoms	Multilingual (60)
Sexually transmitted and other RTI guide (2005)	English (1) / French (1)
One wallchart on syndromic treatment	English/French (1)



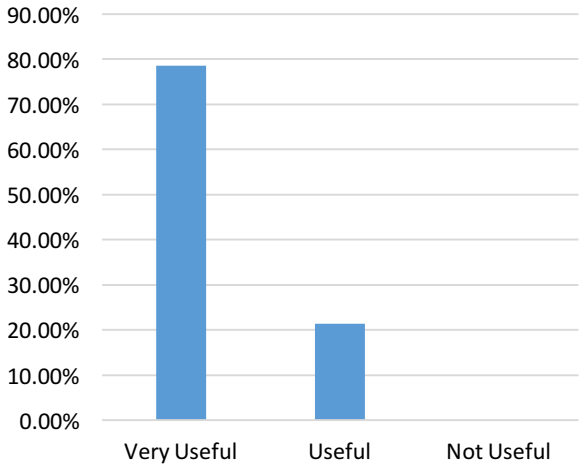


Figure 24: Kit Procurement by Year

Figure 25: Usefulness

Data Summary:

96.30% of respondents reported that all items in the kit were necessary, and no respondents reported the need to add anything to this kit. One respondent reported that there is no need for female condoms in this kit, and one respondent reported that the quantity of antibiotics (Benzathine, Azithromycin, Cefixime, and Metronidazole) was too low. One respondent reported that the kit was frequently unavailable or missing Metronidazole.

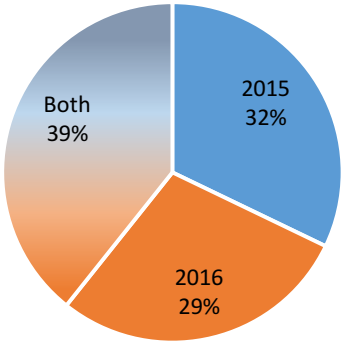
Summary of Respondant Recommendations:

1. Increase the quantity of Antibiotics
2. Create a sub kit algorithm
3. Ensure kits are available and complete

Kit 6: Clinical Delivery - Part A: Reusable Equipment

Contents:

Medical devices, equipment	Sphygmomanometer, stethoscopes, basin, thermometer, brush, tourniquet, resuscitator, tray
Delivery Set (UNICEF 2007)	2 Sets
Suture Set (based on UNICEF 2007)	2 Sets
Sterilization Kit (UNICEF 2007)	1 Kit
Lighting	Flashlight (1) / Kerosene (1)



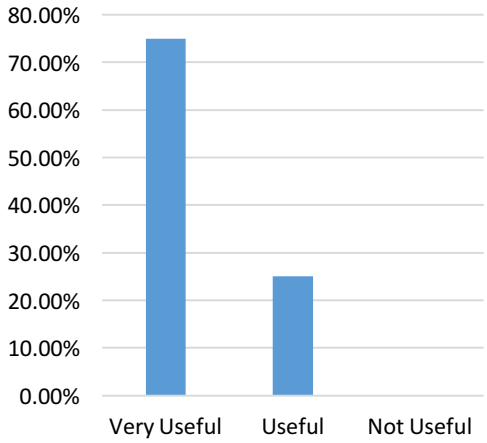


Figure 26: Kit Procurement by Year

Figure 27: Usefulness

Data Summary:

92.86% or respondents reported no problem using this kit, one respondent from Sub-Saharan Africa reported that the kit was too large for referral level facilities and respondent reported the need for a kerosene stove for sterilization.

Summary of Respondant Recommendations:

1. Include a reusable mucus extractor (penguin type)
2. Include four flat boxes for instruments (two for delivery instruments and two for suture instruments)
3. Include kerosene storm lamp

Kit 6: Clinical Delivery - Part B: Drugs and Disposable Equipment

Contents:

Medicines for 45 complicated deliveries in a 3 month period	Amoxicillin, Metronidazole, Ferrous Sulfate/Folic Acid, Tetracycline, Lidocaine, Oxytocin, Sodium Chloride, Glucose, Dextran, Magnesium Sulfate, Calcium Gluconate, Chlorhexidine Gluconate
Medical devices, renewable	Clamp, Cannula, Syringes, Needles, Gloves, Mucus Extractor, Tube, Catheter, Gauze, Cotton Wool, Tape, Toilet Soap, Safety box, Bag, Apron, Drawsheet, Urinary Protein Strips, TST Indicator, Battery
Stationary	Exercise book, pen, bag
Treatment guidelines	Infection prevention (2001), management of preeclampsia (2006), instrument sterilization wall chart

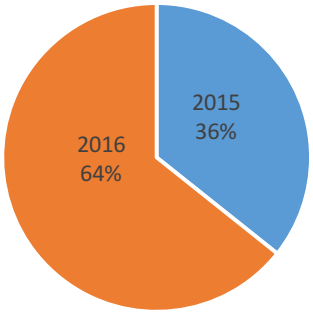


Figure 28: Kit Procurement by Year

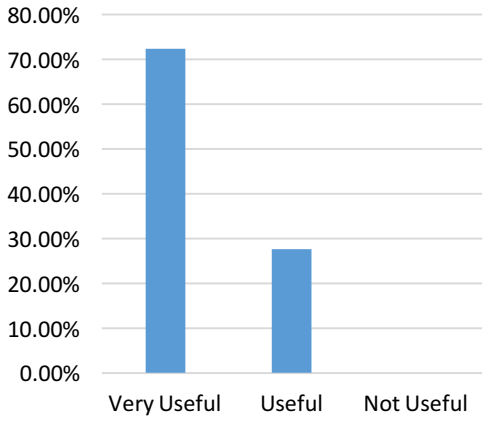


Figure 29: Usefulness

Data Summary:

100% of respondents reported no problems using this kit, 100% of respondents also reported that all of the items in the kit are necessary. One respondent pointed out that the amount of Calcium Glucose was two large as it is almost never used

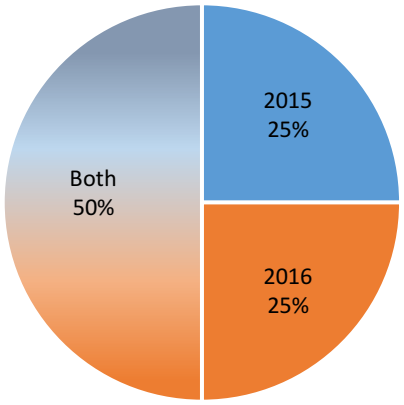
Summary of Respondent Recommendations:

1. Include Misoprostol
2. Include a Partograph
3. Include Azithromycin
4. Add smaller sized gloves

Kit 7: Intrauterine Device

Contents:

Medicines for IUD insertion for 60 women	IUD, Doxycycline, Chlorhexidine gluconate
Medical devices, Renewable	Bag, Gloves, Gauze
Set for insertion/removal of IUD	Speculums, forceps, uterine sound, scissors, bowl, basin, instrument tray



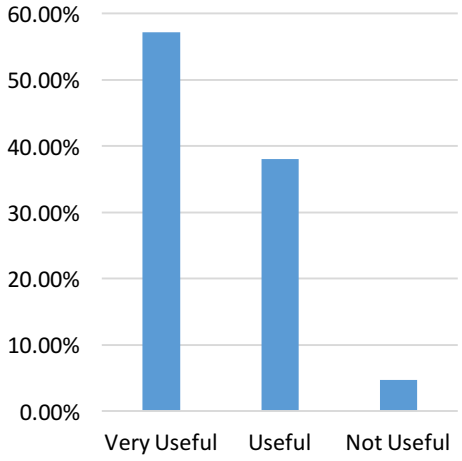


Figure 30: Kit Procurement by Year

Figure 31: Usefulness

Data Summary:

15.00% of respondants reported a problem using this kit. Specifically repondants pointed out the lack of trained providers, a suspension by the government on importation of contraceptives (L3), and regulation of importation of IUDs delaying entry. 100% of respondants reported that all items in the kit are necessary.

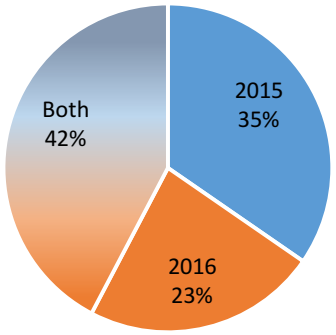
Summary of Respondant Reccomendations:

1. Include an IUD demonstator (uterus)
2. Add smaller sized gloves

Kit 8: Management of Miscarriage and Complications of Abortion

Contents:

Medicines	Doxycycline, Metronidazole, Misoprostol, Sodium Dichloroisocyanurate, Ibuprofen, Oxytocin, Lidocaine, Atropine, Chlorhexidine
Medical devices, renewable	Gloves, syringe, needle, gauze, safety box
Leaflet for women: post-procedure info	English (60) / French (60)
Gynaecological aspiration system for uterine aspiration/uterine evacuation	1
Performing uterine evacuation with MVA	English (1) / French (1)
MVA, Managing complications in pregnancy and childbirth	English (1) / French (1)
Misoprostol for treatment of incomplete abortion and miscarriage	English (1) / French (1)
Manual Vacuum Aspiration set (IPAS Adapted)	2 sets of IA18
Dilatation and Curettage Set (UNICEF Adapted)	1 set



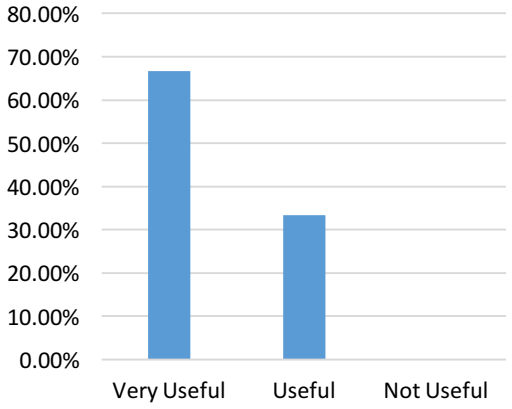


Figure 32: Kit Procurement by Year

Figure 33: Usefulness

Data Summary:

92.31% of respondents reported no problems using this kit, those who did report problems had issues with a lack of trained providers on MVA and the regulation of Misoprostol by the government. 100% of respondents did not find any items of the kits unnecessary, and 100% of respondents reported that the quantities of each item were sufficient.

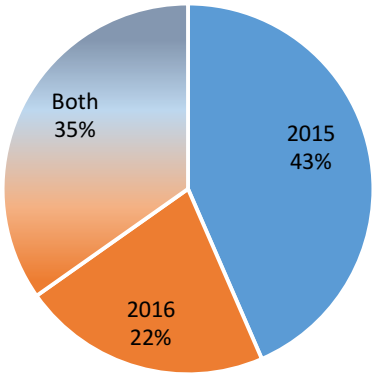
Summary of Respondent Recommendations:

1. Include smaller size gloves

Kit 9: Suture of Tears (Cervical and Vaginal) and Vaginal Examination

Contents:

Medicines	Chlorhexidine, Polyvidone Iodine, Vaginal Lubricant
Medical devices, renewable	Sutures, gauze, gloves
Surgical Instruments Set (UNICEF)	Examination/Suturing, Vaginal/Cervical



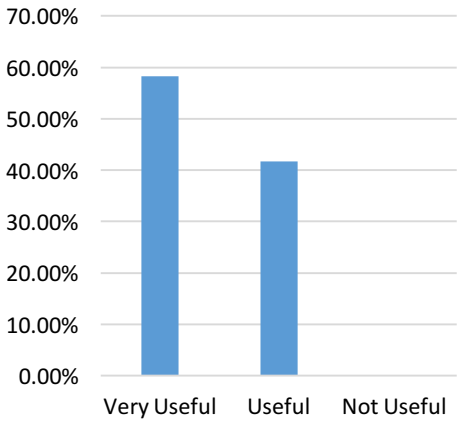


Figure 33: Kit Procurement by Year

Figure 34: Usefulness

Data Summary:

95.65% of respondents reported no problems using this kit, with one respondent recommending this kit to be used in a hospital setting. 100% of respondents thought all of the items in the kit were necessary and that there are no items to be added.

Summary of Respondent Recommendations:

1. Improve quality of the suture

Kit 10: Vacuum Extraction Delivery

Contents:

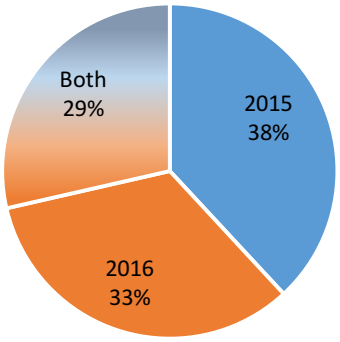


Figure 35: Kit Procurement by Year

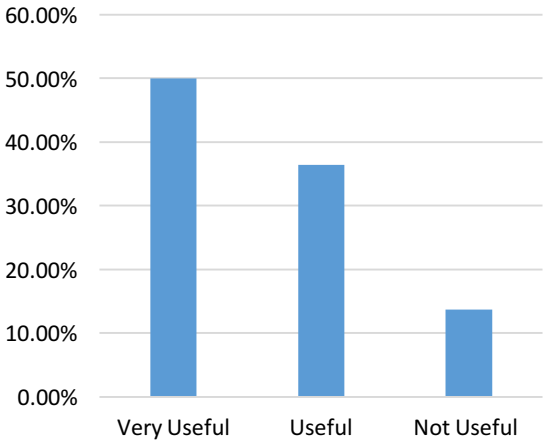


Figure 36: Usefulness

Data Summary:

85.00% of respondents reported no problems using this kit. All of those respondents who reported a problem raised the need for more training and awareness, including in besieged areas. 100% of respondents said that the kit is complete enough for its application.

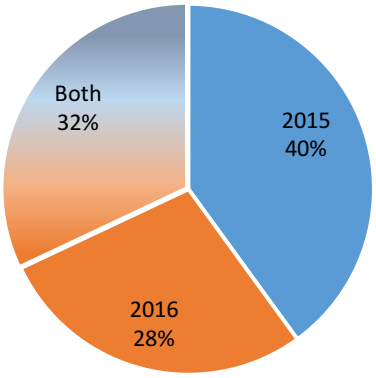
Summary of Respondent Recommendations:

1. Create/include more training material (ex. Demonstration film like MVA)

Kit 11: Referral Level Kit for Reproductive Health - Part A: Reusable Equipment

Contents:

Abdominal Box (MSF 2010)	58 instruments
Embryotomy Set (UNICEF)	1
Disinfecting equipment	Bowl, dressing forceps
Basic Resuscitation Kit (UNICEF)	1



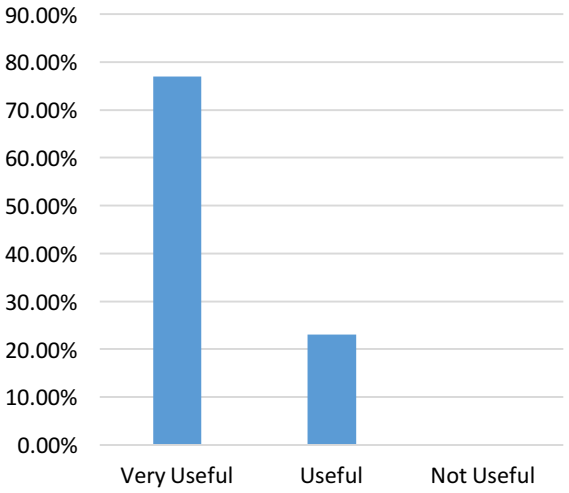


Figure 37: Kit Procurement by Year

Figure 38: Usefulness

Data Summary:

96.00% of respondents reported no problem using this kit and 100% reported that all of the items included are necessary.

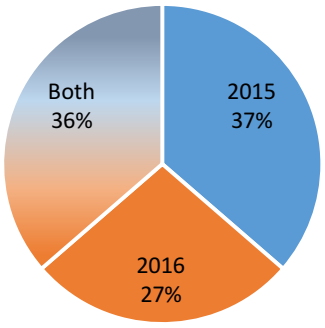
Summary of Respondent Recommendation:

1. N/A

Kit 11: Referral Level Kit for Reproductive Health - Part B: Drugs and Disposable Equipment

Content:

Medicines	Metronidazole, Amoxicillin, Quinine, Doxycycline, Tetracycline, Ampicillin, Gentamicin, Ergometrine Maleate, Oxytocin, Calcium Gluconate, Magnesium Sulfate, Hydralazine Hydrochloride, Lidocaine Hydrochloride, Ketamine, Sodium Chloride, Glucose, Dextran, Chlorhexidine, Sodium Dichloroisocyanurate
Medical devices, renewable	Tubes, cannulas, clamps, needles, brush, gloves, suture, catheter and bag, drape, gauze, tape, scalpel, safety box, safety glasses, pregnancy test
Managing complications in pregnancy and childbirth	English (1) / French (1)



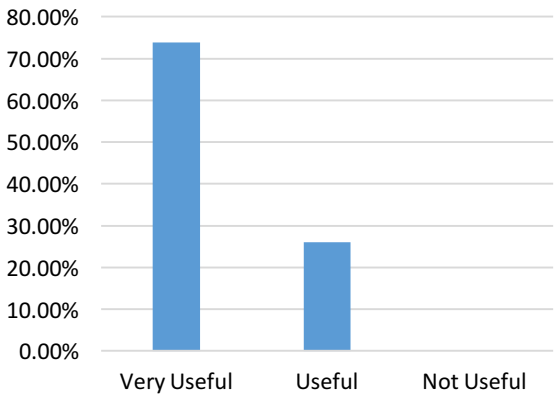


Figure 39: Kit Procurement by Year

Figure 40: Usefulness

Data Summary:

100% of respondents reported no problems using this kit and 90.91% of respondents found all of the items in the kit necessary. Two respondents said that the Quinine was unnecessary and one respondent reported that the Ergometrine Maleate and Quinine was not recommended by the MoH. Additionally, 95.00% of respondents said the kit was complete enough for its application and 100% reported sufficient quantities of each item.

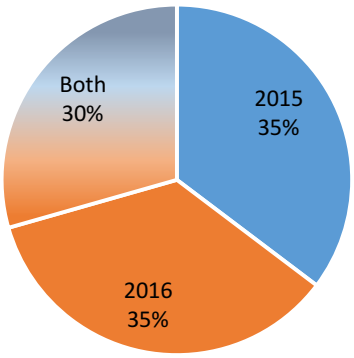
Summary of Respondent Recommendations:

1. Include Azithromycin
2. Include injectable Cephalosporin
3. Include smaller glove sizes
4. Take out Quinine

Kit 12: Blood Transfusion

Contents:

Tests	Blood Group (Anti-A, Anti-A+B, Anti-B), Rhesus, HIV, Hep B, Hep C, RPR
Other items	Photometer, capillary tubes, cuff for pression, battery, gloves
Blood bag + CPD (250dl)	50
Blood Giving Set	100



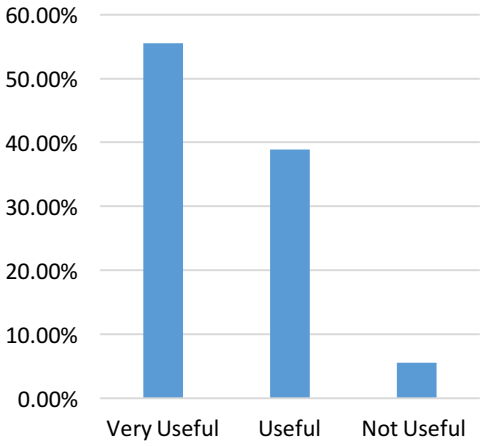


Figure 20: Kit Procurement by Year

Figure 21: Usefulness

Data Summary:

75% of respondents encountered no problems using this kit. Problems included a break in cold chain because of the terrain and issues with the short shelf life; one respondent pointed out that receiving kits with less that one-year shelf-life causes problems for small centres providing EmONC or those in besieged areas. 100% of respondents said that all items in the kit were necessary and that the kit is complete enough for its application.

Summary of Respondent Recommendations:

1. Increase the volume of blood bags

Part 3: Key Informant Interviews

A number of common topics and recommendations came out of the thematic analysis of the key informant interviews. The interviews centred around the causes and implications of over-ordering and waste, and the potential areas for improvement.

General Waste

All of the participants in the key informant interviews said that they believed over-ordering or wasted IARH kits and other emergency medical kits was a problem in the field and will continue to be a problem unless there is more purposeful kit procurement and support for logistics management. While they reported seeing it in multiple contexts, no one had an idea of what the scale actually was.

> *"Countries don't often know how much they have left over; it is very difficult to track the kits on the ground during an emergency. Where it ends up, do the people still have enough… but what we don't want is not having enough. So we supply, we supply, we supply. Then when everyone leaves, that's when you find out how many tons of used or wasted stuff are sitting there but its too late. The camera is not sitting there anymore so it does not matter."*

One participant from a regional office reported that "there is a challenge in terms of having not only expired kits but also the components inside the kits. So there is big wastage, I assume at different levels, and this is a big concern in terms of efficiency and cost-effectiveness."

Participants discussed the two locations that waste could occur, at the health facility level or in the central warehouse. While some individuals seemed to have a small amount of information around waste at the central warehouse level, the bigger gap in information on waste seemed to be at the health facility level where respondents have witnessed waste but there is limited capacity to monitor it.

> *"The implementing partners or the health facility level, they either don't have an inventory management system or we don't have access to their inventory management. So we don't know what is held at the health facility level or what is held by the ministry of health."*

One country office respondent pointed out that "If you go to township hospital you will see the medical store and you will be like Wow. They have a small medical store in the hospital and in there its on track, but they have a bigger one that is outside of the hospital compound. If you go there you will see like mountains."

Participants also pointed out that waste that the waste they know occurs at the health facility level is multifaceted. The kits that are ordered are not always the ones needed by that specific facility, those managing the kits at the facility often don't know proper medical commodity management or where the commodities belong.

> *"Certain places at the field level, they have the primary health centres that they just received the boxes and they don't know what is inside it. Some people they know, they open, they take what they need and they leave what they don't need, and it stays there without any use."*

When one participant from a country office was in a previous refugee context they reported "I have seen in health facilities rooms packed with kits which were actually not used, not opened, because they didn't match with the needs. In this case, I mean I cannot say from where it came, I don't know if the facilities over ordered or what but I've seen that, UNFPA box up to the roof and they were not used."

Additionally, when the data on the demographics of the target population are weak there can be unintentional waste. "So we procured kits based on the MISP calculation because I mean we had a lot of refugees coming in from [Country]," said one regional office colleague, "but at the end we found that 90% of the population are single males because they were migrant workers."

There was also a recognition that there will always be some inevitable amount of waste associate with the IARH kits. Between population contraceptive method-mix differences and global estimations used to make the assumptions for the content of the kit, it will never be perfect fit. One participant gave the example of the post-exposure prophylaxis in Kit 3 for post-rape care.

> *"I simply give you the example of the PEP kits. Okay it's not used that much but it should be there because you can have survivors at any time. So this kind of thing should not be avoided or almost can not be avoided."*

Why Countries Are Ordering

Different individuals in different contexts are procuring kits for different reasons. Many country offices don't completely understand the added value of the kits, and when they are appropriate or not.

> *"The people that are ordering the kits need to have an understanding of what the kits are for, how many they are supposed to serve. Because when anything happens the first thing people do is order the kits. That's not really acceptable. There needs to be better justification for ordering a kit, more than just that something happened."*

In some contexts, there seems to a gap in critical thinking by country offices on why they are procuring the number and the type of kits they are procuring.

> *"From what I have seen a lot of our programmes order what they think they need but there does not necessarily be a lot of thought that goes into that process. It will be more of a gut feeling of somebody involved."*

According to participants there seems to be a connection between how much funding they have available and how many kits they order. One participant discussed her experience with a specific country office, "when I went back to them to say 'well how do you get this number and how does that meet what your strategy is?' they said 'we bought as many kits as we could get for the budget we had.' So a big piece at the moment is trying to change peoples thinking on how to actually titrate what they want to do to what they need in terms of drugs."

Countries are also having problems transitioning from the initial emergency response using kits to their own sustainable supply line, so they continue to procure the kits; this can result in funding, as opposed to consumption, driving procurement for longer periods of time. One participant said, "you should have a plan, when you order kits you will order for 3-4 months than you will transition to bulk procurement. This is my plan so I know exactly how many to order. Now they say 'oh I have 1 million, one kit costs X and I will get this many.'" Another one said, "I think that at the field level they are much more like 'well we had the money so we bought a kit and its expired but who cares we had it in case we needed it.' They don't necessarily see that maybe them holding onto that kit may prevent a kit going to somewhere where there is an acute need."

Kits can also be seen as symbolic, by bringing a commodity into an emergency context with your agency's logo on it, it is very visual. "Every agency wants to have it; this is the only way of showing that you have something to bring to people." Said one participant "Because during an emergency you want to have your logo, the first thing you draw out is a kit. It does not matter if it is not fitting the purpose, they just push the kit and say ooh we pushed the kit. So you will never be able to fight against this. But then you have to put qualified people on the ground." Kits are also very easy for countries to order.

> *"Its already packaged and you know the cost and it's a good way to use money as well. Its also a good way to show the country that you are doing something. Its very visible. Especially if you are going to have issues with the importation of drugs, these kits are all already approved and you can bypass a lot of the customs issues."*

Pre-Positioning

Pre-positioning is increasingly becoming a reason why partners are procuring kits. While the kits are not designed to be prepositioned, with proper guidance and in certain circumstances, the consensus by participants seems to be that it could be okay. One participant summed it up well saying, “The kits are not meant for prepositioning, because one kit can have several dozens of items and especially the medicines, there are batches of medicine that have all different expiry dates. So the kits are designed to use immediately, that is the purpose of emergency kits. I can understand in countries where there are regular emergencies, like there’s monsoons every year or twice a year, there is a hurricane or there is a high risk of earthquakes, I can understand people prepositioning kits.”

Without proper guidance and policies on how to deal with the prepositioned items there could be significant implications for medical waste in-country.

> *“I think that the guidance we have to give them is if they want to preposition they have to budget for that in their regular budget and they have to make a plan to distribute the entire kits within X months of expiry to a partner that they have a prior agreement with,”* said one respondent*. “I think if they don’t do that they will, we will keep ending up with more and more waste.”*

Another participant from a country office, who has experience with prepositioning due to the complexity of their context, highlighted many of the things you need to take into consideration if you plan to preposition and not have large amounts of wasted commodities.

> *“First of all you need to understand very well your supply chain. What is the transport system? What are the custom regulations? You need to have a very good stock management system, you need to have a logistician who understand what is the procurement system, how to manage your stock, how to have the expiry dates moving 'this one first, those ones second,' what is a buffer stock what should it be, etc.”*

All of the respondents agreed that countries should not be electing to preposition on their own without discussions with the regional and global offices on the reasons why and to develop a plan for medicines with short expiration dates. One participant discussed their decision to preposition in a particular country. “Our scenario of a large scale earthquake showed most of the key entry points, the airport, the main roads, would be disrupted. So getting these stocks into place would take at least 3-5 days were you have lost you ‘golden-hour’ of saving. So that was one of the only scenarios where I stockpiled kits myself and where I encouraged partners to do so.”

Another participant from a highly besieged country with access concerns stated that in their country preposition is necessary “because sometimes we are we are called and we are told there is a corridor, a humanitarian corridor, there is the road and it will open tomorrow and we have only 48 hours. So we need to be able to load the trucks within 24 to 48 hours.”

Most of the respondents agreed that if a country was really flagged as high-risk it would be appropriate, but partners need to be aware that medical commodities are much more difficult to manage for prepositioning; if it is not done right there can be implications for both their own country and other countries ability to respond as well. Additionally, one respondent highlighted that “if we don't have secured funds to replenish the used pre-positioning stock in the emergency, we have zero financing on hand to cope.” Prior to prepositioning there needs to be a significant amount of planning and investment in order to do it in a sustainable and effective way.

Investing in Logistics and Supply Chain

All of the participants discussed the importance of donors and organization investing more in logistics and supply chain. Not just investing in organizations globally and at a country level, but also in helping countries establish their own supply chains and bulk ordering once the immediate onset crisis period has stabilized. While donors are keen to fund the kits themselves, they are quite reluctant to fund the rest of the shipment-storage-waste management process. “From my perspective, our donors don't want to do anything involving improving our supply-chain,” said one participant. “They see that as more of an internal issue and from what they see they basically base it on, ‘if you delivered what you said you’d do with the money we gave you we don't question it.’ Whereas, we could be generating quite large amounts of wastage through over-ordering and things but they just don't want to look into it, because if they don't see the problem they don't care about the problem.”

Investment in pharmacists and medical logisticians in-country is seen as a top priority to make sure the people ordering know how many to order and the people managing the stock know how to adapt to the changing contexts in country. Every respondent discussed the need of all organizations procuring medical kits to look at “who” is the person responsible for ordering.

When discussing the lack of continuous cold-chain in many contexts one participant said, “You cannot blame them during an emergency as sometimes the coordination is not good and its very difficult, you have no power so you have no electricity, etc. But then you should have qualified people on the ground who know how to manage that can say ‘okay your fridge is 25 degrease you have to use this oxytocin in six months or throw it away’.” Another participant from a country office said “the staff, they are not aware that there are certain items that should be stored in a certain temperature.”

Investing in Training

Organizations also need to make sure that those procuring and managing the kits are well trained on the components of the IARH kits themselves. Many of the kits are for specific health facility levels and many need to be procured alongside other kits by different agencies to be most effective. All of the respondents discussed the need for better training for those who are ordering and managing the kits. These are just a few of the comments made by participants regarding the need for capacity building on logistics.

> "*We need to train people who are going to be there ordering the kits on what they are and what they are for. It's a big gap. We see requests from hospitals asking for 50 basic IARH kits and I think, what would you do with 50 basic IARH kits in a hospital? People really don't understand but they want something."*
>
> *"For me, we need to invest much more in having the right people to actually manage supplies, to have properly trained professionals."*
>
> *"I think it's very important to train those who are doing the procurement, to train them on how to estimate the needs. They should have with them somebody from a public health background at least to understand which kind of level of facilities we have on the ground before the procurement."*
>
> *"I think the capacity of the store keeper at a hospital is not good. It's like they don't really know, because you know when we provide the training about the ERH kits it concerns mostly the midwives and the hospital staff, not the storekeepers. And they don't really communicate with each other."*
>
> *"I mean there is no real logistical management of kits trainings its not part of our programming... We don't have the funding"*
>
> *"All the providers have the training to utilize all of the materials from the RH kits in our organization, but they don't have enough specific training on how to manage kits like the logistics training."*
>
> *"They also don't get the training. So although we distribute the kits, but they don't know how to use it, where to distribute, how to storage it and all the aspects."*
>
> *"I think we need to invest in the right people with the right training. You don't become, you know medical supply logistician just by accident…And then know to follow the rules and use the tools. Because everything is there you know you don't need to invent anything it is just that you just need to know all the rules and to do it."*

"The manpower is the problem at all levels. At the [state] level we don't have one assigned focal person who were trained for the commodities. So the [state medical office] assign one of the staff, that can be the nurse or something."

Investing in Monitoring

There is an overall lack of systematic monitoring regarding the utilization of the kits at the last-mile delivery level. When it is done, it is ad-hoc and and by using proxy indicators. As countries continue to procure kits over and over, not having a systematic way to monitor consumption can lead to perpetual waste. One participant from a sub-national level said that, "in principle we are monitoring but there are some limitations on us. I think we can say there's no systematic monitoring but we have whenever one of our field staff is going for monitoring they will check whether the oxytocin is being stored in the optimal temperature." Another participant discussed their use of proxy indicators for monitoring.

"Right now we monitor effectively until the kit arrive in the health facility and then we kind of monitor by asking the number of delivery, the number of consultation, and so on. But it would be nice if we could actually do a little bit more at facility level."

Implementing partners' even have a gap in monitoring related to kit utilization. When asked about this process a participant from an implementing partner said, "we only monitor how our facilities give services to their clients in the technical way or not."

Invest in Countries' Transition to Their Own Supply-Chains.

One area in particular that participants reinforced is the need for investment in helping countries transition from kit procurement to using their own supply-lines for bulk procurement. All of the participants reinforced the need to make sure that countries are ordering the kits only if they need them. One participant said, "we should have clear guidance that in non-cyclical emergency countries or for chronic refugee settings the kits should no longer be ordered, and we should have tools to help people order items from bulk."

Continuing to procure the IARH kits for long periods of time guarantees that there will be waste as the content of the kits and assumptions behind the calculations are made at a global-level. One example was given by a participant in a country office; they highlighted that the contraceptive method mix in their context was vastly different than the contents of the kits.

This transition is difficult for countries because it falls between the humanitarian-development gap; it is not something humanitarian or development donors want to fund.

"Development donors are not happy because they are worried their money will disappear. The humanitarian donors are not happy because they say 'I don't see direct

results.' And I think that supply chain issue is in that grey area, and I think that somehow we need to convince the donors that they should look at that and support that."

Procuring kits is also perceived as being quicker and easier than making the transition. "I think having one of the benefits of procuring kicks in my opinion it is much quicker. We have some experience in buying medicine for RH individually. But it takes so long." It can also be seen as the easiest way to bring certain commodities into the country that the government may see as undesirable, as opposed to going through a long negotiation process to explain the purpose and value of these controversial medicines.

"What about Misoprostol? What about emergency contraceptives? What about the PEP? When you say Kit number three, they notice that its a UNFPA or Inter-agency RH kit and they let it go on. But then if you order as a bulk it has to go through a long process to be approved and this is a process that can take even six months or even more. And these kinds of things also are very important."

These issues with transitioning from IARH kit procurement to countries-own supply lines highlights the larger issues countries have in transitioning from the MISP to comprehensive SRH in emergencies. These issues around the convenience of the kits and the complexities of the work needed to be done to establish supply lines, need to be taken into consideration in guidance and policies for protracted crises. Many participants discussed the increasing reality of crisis; particularly that not every crisis will be able to transition out of the initial emergency phase in the 3 to 4-month timeline assumed by those at the global-level. The feasibility of this transition may occur at different times in different regions of the same crisis. Any guidance on this transition given by the global or regional offices needs to acknowledge this complexity in any future procurement regulations.

"They need to recognize that in a country or even in a region their capacity to do that might be different. That maybe in one part of the country you can start ordering bulk but that doesn't mean that the other part will be able to."

Coordination

"I think there are areas of big wins for us, and one them Is interagency collaboration."

While participants reported significant improvements in coordination for reproductive health in emergencies in the last ten years, there are still improvements to be made, particularly around supplies management.

"Coordination has improved at the health level, but not yet at the medicine and supply-chain level. So, we agree on what are the priorities of the country 'A, B, C, D', and then

we divided it 'okay UNFPA is going to do X, UNICEF is going to do X, etc.' But than that's it, that's where it ends."

Organizations are collaborating more closely to make their kits complimentary to reduce redundancy and waste, but the collaboration in-country on what different agencies have procured or have distributed to partners is still a gap. One respondent told the story of her experience in a country in West Africa, "the director told me 'oh [name], come come I have a lot of things, look.' He had six refrigerated containers, so I said 'okay do you have an engine-power, a generator or something?' he said 'No.' 'So what are you using this for?' 'It's a donation!' Oh good. Fantastic. So it's a complete lack of coordination*."* Increased coordination with partners in-country during the procurement, management and distribution can lead to decreased waste. Particularly with the capacity for cold chain. Another participant from a country office stated that, "for the cold chain the coordination is very important with other UN agencies and they can share their capacity with us."

One government implementing partner said that the lack of coordination from the initial procurement can cause overwhelming problems.

"It is a difficult problem you know; I cannot find the starting point to handle you know it is a big process. So when we have you know some problem at the storage place, we have to solve that problem. Then again to that distribution problem we have to solve so, I don't like this kind of cycle. So I want to be smooth. And you know a stronger mechanism right. And they are also working and trying a lot, but you know it's kind of systematic collaboration is required."

A few participants also made reference to strengthening collaboration with other organizations like MSF and ICRC during the import and distribution process. One participant made reference to UNICEF and Coca Cola's partnership in the past as a model, particularly that "several years ago there was a crisis and UNICEF managed to send vaccines with Coca Cola shipments. Coca Cola reaches the most remote areas so there are solutions; private sector is very good at this."

Coordination for Preparedness

One common theme that continued to arise was the importance of coordination in preparedness beyond prepositioning the Kits themselves; particularly things that need to be taken into consideration and undertaken during the pre-crisis period that will reduce waste and delays during the response. Often when discussing the humanitarian-development nexus the focus lays on the transition out of crisis into more stable development, however participants highlighted the increased need to also focus on the nexus between the stable context and its' deterioration into crisis. Regarding the preparedness planning one participant reiterated the importance of planning and coordination.

"Something else which is very important is the planning at the preparedness phase to discuss with different governments the authorization to get the kits in the country; within 48 hours or 72 hours they should be cleared up with the different government required departments. Even those who are not facing a humanitarian crisis making sure specific commodities in the kits are on the national drug lists, to identify different potential warehouses, and the main airports for cargo freights this is very important. It's beyond the technical issue, it's preparing for an emergency in all of the places where we think an emergency could happen and this can be done jointly with the WHO and UNICEF as technical partners but also with WFP."

Another participant discussed the waste implications of not knowing what kind of authorization and paperwork you will need to do in the event of a crisis; that "if you don't do that research and have those discussions in advance for preparedness, for when you actually need it there can be a waste of time and money…In fact there were a lot of wastage because the supplies were stuck in the airport for three-four weeks doing the paper work when the supplies first arrived."

Participants also discussed the importance of data collection in coordination with national partners during the preparedness phase, to make sure the kits can go where they are needed most during the crisis. Importantly coordination with donors during the preparedness phase was seen as essential to reducing waste and being more effective.

"The main message is that I think we have to discuss with donors, I mean humanitarian donors, and to let them know and understand that investing in preparedness is very very important. Until now many donors they are not aware about this issue. Investing in preparedness means identifying the warehouses, identifying the main airports, identifying and working on the legislation and the registration of the medications and drugs in the country, and all of this is very important."

Implications

There are a number of implications highlighted by participants of over-ordering and waste at the field and global levels. In-country there is a limited capacity to store and transport. There is also limited capacity for proper waste management. "Dealing with wastage is not easy," said one participant, "what WHO recommends for medical disposal is very strict. Very few countries have the capacity to meet these standards and it becomes a problem." Additionally, it may not be possible for all commodities nearing expiry

to be integrated into normal programming as a contingency to prevent waste.[33] Two other participants discussed the implications of over-ordering and waste from the perspective of the government.

> *"More and more they are saying that during an emergency they don't know what is happening in their country. Everyone is bringing a lot of stuff and then when they leave the end up with the piles of shit and no one is there anymore."*

> *"One of the challenges for this waste disposal is that there is not enough facilities or infrastructure for the disposal. For instance, not all hospital, or health facility have incinerator or facility for disposal. So some are still practicing their old burial."*

Another very important implication of over ordering and having expired medicines is the possibility for misuse. A few participants discussed the possibility that drugs may be used anyway. One country-level participant said that they have heard that "for some very expensive antibiotics or some expensive drug, if it is kept in the room temperature without exposure to the sun or intense heart, they use within one month of expire. They you believe it is still viable to use within one month."

Another component of misuse is the potential to overuse drugs or items that may have negative health outcomes. "For example in [Country], they are already overusing antibiotics," Said one participant. "If you send them more antibiotics, you are just going to increase the problem."

A number of participants discussed the overuse of the clean delivery kits (2A), and emphasized the need to better train those at distribution points on how to tell women what these kits are for and when they should be used. These kits can be misinterpreted, encouraging women to not come to the facility for a birth. or they can be misused in their home, if there is not enough information given at the point of distribution.

> *"The CDK is very useful for the pregnant women. But there is a problem in how they distribute to the pregnant woman. This midwife, she distributes to the pregnant women, but the pregnant women give the content of the CDK to their house when they return home."*

If too many of these kits are procured there can be unintended misuse that may impact the service delivery to the affected population. One participant reiterated that "when we are distributing clean delivery kits we are not promoting home delivery, its a solution for when they can't get to the hospital. We have to make this clear, because our goal is to have women delivering in a facility with a skilled attendant. The clean delivery kit is just for when there is no possibility to reach the facility."

33 One example of this was a partner discussing the difficulties in integrating PEP into the health system of the government when they near expiration, because the government guidelines don't advise its use.

At the global-level there is a limited capacity of prequalified suppliers. When you have certain countries ordering inappropriately this has implications for the global supply of medical commodities available to be procured in emergencies around the world.

> *"Now, for example, for Artesunate which is used for complicated malaria we have only one prequalified supplier. Because of ordering a lot of [Emergency Health] kits, we completely drain the supply for misuse of this Artesunate and now we have the beginning of malaria season in Africa where they need this, not in an Arabic country."*

Another participant discussed the implications on time-to-delivery in their recent experience, where there was a limited supply of kits. She said, "suppliers can supply only a certain amount. Who decides who needs it more? I just came out of a situation with two countries where I think one needs it more, but the other ordered it first for their prepositioning and refused to let it go. There is not much I can do about that. People need to be more mindful of what they order."

The issues around time-to-delivery and the availability of kits can have implications not only on partners' ability to respond to the crisis, but the image and reliability of UNFPA when responding to a humanitarian emergency. While many organizations have similar issues with procurement and the capacity for management in country, the IARH kit's challenge in time-to-delivery is more frequent, causing delays in response after a crisis occurs. "And these kind of things will have a negative impact on our program but also on our image," said one participant. Respondents also referred to how the long delays and lead times can lead to shorter periods of implementation before medicines expire; there were discussions around the ethical concerns with these delays in time-to-delivery at the last-mile

> *"The bad usage of kits means also that those who need the kits might be in trouble having them because the system is busy sending kits to places where it would not be a priority. It can create also a lot of bad bad relations you know sending kits on the ground with almost to expire stuff is something completely unethical and potentially dangerous."*

One participant from an implementing partner organization highlighted that over ordering can also place additional pressure on implementing partners that may not have the capacity to accept and utilize the additional commodities.

Finally, over-ordering wastes money. With the current funding climate for SRH right now, agencies and donors need to be more purposeful with their funding. Saying you are going to fund kits is not enough, you need to make sure that the kits are necessary and that you are supporting the entire supply-chain and management of them as well.

"So I think it's the image of what you would like to give you know? What interests you, the amount of money you have given, or the amount of people that have benefitted? Like the [Organization] saying 'we saved this number of people from Malaria' because they were given this amount of bed nets, but do they use the bed nets correctly? No, they are used for fishing or whatever. But transforming the amount you have donated into impact is different. If its okay for you keep going like this than keep going, if its not you have to change your strategy."

DISCUSSION AND RECCOMENDATIONS

The research has highlighted some important considerations moving-forward on the process of procurement, distribution and utilization of the IARH kits. Who is ordering, what is being ordered, where they are being ordered for, when they are being ordered and why they are being ordered all have significant implications on if kits will be over-ordered or wasted. Recommendations should be taken forward in order to make progress on effective use of the kits in order to help the most number of people in crisis.

Addressing bottlenecks in supply chain and improving commodity management were identified in the 2012-2014 IAWG global evaluation of IARH in humanitarian settings, as key areas for priority. This review noted specifically that "poor commodity security and supply chain management obstructed good quality service delivery in all settings."[34] Further investment in supply-chain and logistics can significantly impact the ability of women and girls to access quality, context specific and timely sexual and reproductive health services in some of the most remote parts of the world.

Who is Ordering and Managing?

One of the most important components in ensuring that the right amount of kits are ordered, and that they are managed properly, involves making sure there are people in the offices/warehouses with the right background. There is an overwhelming lack of pharmacists and medical logisticians in-country who know how to translate the need on the ground into a proper procurement order and who know how to deal with fragile medical stock in changing environments. 45.28% percent of respondents to the survey reported never receiving a training on the ordering, management or usage of the kits. It is also important to look beyond the kit management at the capital level. Only 52.83% of respondents reported that items were unpacked and stored for distribution at the health facility level. Ensuring that implementing partners doing last-mile delivery have the capacity for proper medical supply management, will ensure that the most number of affected persons have access to the lifesaving commodities.

[34] Casey, Sara E, et al. "Progress and Gaps in Reproductive Health Services in Three Humanitarian Settings: Mixed-Methods Case Studies." *SpringerLink*, BioMed Central, 2 Feb. 2015. p 10.

Recommendations

- Donors should invest resources to ensure that a trained medical logistician or pharmacist is in every country procuring IARH kits, particularly those that will be prepositioning kits, to order and manage the kits.
- Relevant partners should develop guidance on how much it will cost to hire a trained logistician at the country-level to integrate into proposals for donors.
- UNFPA, and other partners procuring the IARH kits, should work to build the capacity of implementing partners and health facilities on proper management of medical commodities.
- The position and attitudes of an implementing partner, and the ability or desire of the target population to seek services from that partner, should be taken into consideration when kits are being given to that partner.[35]

What Kits Should Be Procured?

Many countries are procuring specific kits for reasons including: not knowing the content or purpose of each kit, being the right price, or thinking 'Why not?'. Ensuring that there is an understanding of what each kit contains and at what health facility level it should be used for, are essential to countries correctly procuring individual kits that are fit for their needs. Not all countries will need every IARH kit and not every IARH kit can be implemented in every context. Procuring the wrong kits, or extra kits, can create medical waste that is not only difficult for countries to deal with but can affect the ability of other contexts, with acute need for those kits, to acquire them in time.

Recommendations

- UNFPA, and other partners procuring kits, should work to train implementing partners and staff procuring at the capital on the content and purpose of each kit.
- The IAWG/UNFPA should improve the IARH Kit Calculator; it may be useful to look into a regional adaptation of the calculator.
- UNFPA should re-think the 'block' categorization of kits, to discourage the procurement of entire 'blocks' without thinking through the need for each kit.
- UNFPA should discuss with country offices the reasoning behind the procurement of specific kits as a standard part of the procurement process; this should be supportive as opposed to regulatory.

35 For example, if the government is an implementing partner but they are also a party to the conflict, the target population may not feel comfortable seeking services from those facilities. Additionally, if an implementing partner does not think that an essential service is necessary because of underlying bias (ex. that there is no rape cases) this can also impact utilization of kit items; these can lead to a waste of commodities.

- UNFPA should improve communication around realistic uptake of female condoms with partners or country offices when Kit 1B is being procured.
- An increase in data collection in the preparedness phase can lead to more accurate and comprehensive assumptions for procurement when crisis occurs.

Where and When Should Kits Be Ordered?

Kits are being ordered for three different reasons including onset crises response, for prepositioning or in more stable settings. The kits are designed to support the implementation of the service objectives of the MISP at the very onset of a crises, and are meant to be applicable to any crisis globally. The basic minimum commodities included are just that, basic and minimum; the kits are not meant to be context specific or comprehensive. If a crisis response is at a stage where they have conducted a proper needs assessments and it is clear that they need different commodities, countries should also be at a stage where they can begin work to phase-out kit procurement and work to establish their own bulk procurement through sustainable supply lines. Country offices of UNFPA and partners in stable contexts and protracted emergencies need more coordinated support from the global and regional offices in establishing their own supply-lines, and should be discouraged from continued procurement of the IARH kits.

56.25% of respondents to the survey reported procuring for prepositioning. While the kits are not designed to be prepositioned, with proper guidance and in certain circumstances, the consensus by participants seems to be that it could be okay. However, partners should come together to discuss how to achieve “smarter” prepositioning: what kind of prepositioning works best in which contexts, for which kits/products, and for which types of crisis threats; what kinds of countries have the need and capacity to do it properly, how to ensure countries with sudden onset crises are not delayed in their procurement and what kind of support they will need from the regional and global offices.

Recommendations

- The IAWG and other relevant partners should come together to discuss lessons learned and the future of prepositioning of the IARH kits and the other Emergency Medical Kits.
- UNFPA guidelines on prepositioning of the IARH kits should be updated.
- UNFPA and IAWG should come together to discuss how to better support countries in their transition from MISP to comprehensive SRH after the initial crisis phase is over, including an increased focus on supporting countries in their establishment of supply-lines.
- Partners managing different emergency health kits should work together at the country level to support the coordinated transition from kit procurement to sustainable supply chains in order not to create parallel systems.

- Donors need to invest resources in capacity building at country level to re-establish supply-lines for bulk procurement soon after the start of the crisis.
- Countries in stabilized settings should be discouraged from continued kit procurement. This includes stable camp settings and regions of countries that are out of the initial emergency response phase.
- Guidance on the procurement and logistics of the IARH kits should be updated taking into consideration that some contexts may be unable to establish supply-lines after 3 months.
- UNFPA HFCB should have the ability to redirect an order of IARH kits that have been procured for prepositioning, in the event of another sudden onset crisis that is in immediate need.
- Country offices and implementing agencies should be able to reallocate kits that have been pre-positioned but are getting closer to expiry, to another setting. UNFPA and Partners should work with donors to loosen restrictions on which country the kits can go to from specific funding sources to allow for this.

Why Should Kits Be Ordered?

Determining when kits should be ordered in the first place is not always as clear as saying ‘a crisis has occurred so its time to order kits.’ As said by a participant in the key informant interviews, “when anything happens the first thing people do is order the kits. That's not really acceptable. There needs to be better justification for ordering a kit, more than just that something happened.” Additionally, kits are very visible with big donor/agency logos on the boxes. Donors seem to be more willing to fund the kits than invest in the sustainable supply lines that allow for bulk procurement of commodities in-country. Are kits being ordered because there is a need for the commodities, or because there is a need to physically show you are doing something? This is an important consideration when looking at kit orders, because one country ordering for ‘show’ may lead to another country not being able to order for ‘need.’

Recommendations

- UNFPA should work to better communicate to partners the implications of over-ordering kits.
- UNFPA should have an improved systematised two-way relationship with countries in order to discuss if kits are appropriate in specific settings.
- The capacity of implementing partners, government and non-government, to utilize the procured commodities before expiration should be taken into consideration by the partner procuring the kits in country, when procuring more than one cycle of kits.

Crosscutting Recommendations

- More data on ordering habits, wastage and expired kits/medicines needs to be continuously collected at the global, national, and health facility levels.
- Donors need to invest money in supply-chain and logistics of IARH supplies as a whole, not just for the kits themselves. This applies to building supply chain management capacity across the disaster risk management cycle, from preparedness to response to recovery.
- More coordination between those managing different emergency medical kits at the global level should take place for problem-solving and lessons learned. More coordination should also occur across HQ, regional, and country offices to align expectations, to feed live experiences and lessons learned from the field upward, and for HQ to provide support to countries as they seek to transition from using the IARH kits to procuring bulk commodities (starting with piloting the JSI forecasting tool across multiple settings).
- New partnerships should be explored with other humanitarian, development, logistics and private sector actors (ex. MSF, ICRC, RHSC) on increasing the speed and effectiveness of the logistics and supply chain of the IARH kits.
- Increasing interagency coordination and transparency around who has what commodities at the country level, needs to be discussed in humanitarian country teams.
- As part of preparedness planning, partners working in SRH in countries in both development and protracted humanitarian crisis should work with national counterparts to make sure the drugs in the IARH kits are registered in-country and on the national essential medicines list, make agreements with relevant government ministries to allow the import of the kits within 24-48 hours of a crisis, locate and create agreements with potential implementing partners and collect data on the distribution of facilities, available warehouses and the main airports for cargo freight.
- UNFPA should establish a standard review process for all kit procurement orders by country offices to ensure sustained conversations between the procurement division and country offices to support the purposeful determination of orders.
- Guidance and best practice on remote management of partners using the kits should be developed and disseminated in contexts with access constraints.
- The value of a regional IARH kit logistics platform in regions with large numbers of countries prepositioning should be explored.
- The value of a logistics hub in the International Humanitarian City in Dubai should be explored, particularly because of the number of sudden onset emergencies and kits being procured in the Arab States region.
- The names of Kit 3 ‘Post-Rape Treatment’ and Kit 8 ‘Management of Miscarriage and Complications of Abortion’ should be revaluated given the difficulties countries are having in importing them.
- A Community of Practice available to partners procuring, managing, and utilizing the IARH kits should be created for sharing adapted materials, best practices, tools and other resources.

- Donors should invest in the capacity of UNFPA to support the process of guidance, management and support given to countries for the IARH kits.
- UNFPA, and partners working on SRH in emergencies, should work with the Humanitarian Innovation Hub to find innovative solutions to challenges related to the IARH kits (ex. Non-battery and non-kerosene devises; reducing reliance on cold chains through the development of heat-stable products; environmentally friendly adaptations)
- Long-term humanitarian funding from donors can not only support countries to transition away from IARH Kit procurement to their own supply-lines, but can help reduce Kit procurement that is purely based on funding and funding deadlines.
- Systematic monitoring of IARH Kit content usage in health facilities should be encouraged and supported in contexts with prolonged Kit procurement.

Conclusion

In conclusion, investing in the capacity building and systems building for supply chain in countries needs to be a top priority to ensure that the right people, in the right contexts are ordering the right amount of kits for the right period of time. This will not only reduce over-ordering and waste of the IARH kits but will ensure that timely and context-appropriate lifesaving medical commodities arrive where they are needed most.

Study Limitations

The survey was sent out in English, this may have impacted the partners who could participate in the research. A small number of respondents answered in French, but this still required for them to have familiarity with English to understand the questions. The key informant interviews were also conducted primarily in English. Despite most participants' familiarity with English, and a basic availability of UNFPA staff to translate when necessary, partners particularly at the country level may been disadvantaged. Additionally, those who were able to respond to the survey are partners with internet access. Many implementing partners, especially those covering the 'last-mile' delivery may not have access to the internet due to the humanitarian situation or a lack of infrastructure in their location. This may restrict the number and type of partner able to participate in the survey. Finally, as this research is self-reported on performance from country offices and implementing partners to the headquarters office there may be an element of social desirability bias. There are a number of questions that may be biased toward what would be considered 'good behaviour,' particularly those related to waste, managing stock and monitoring.

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