



RapidPro Surveys Support Accountability to Affected Populations During the COVID-19 Pandemic in Fiji

SUMMARY

During COVID-19 in Fiji, UNICEF in conjunction with the Fiji Ministry of Health and Medical Services (MoHMS) distributed WASH kits to a target population of those in home isolation. During any emergency response, UNICEF has a core commitment to ensure accountability to affected population (AAP), and feedback was sought from recipients on the kit's suitability and acceptability. However, data collection was limited by national social distancing regulations and limited availability of staff. As a solution, a mobile survey was designed using RapidPro with recipients registering for the survey via Viber QR code or toll-free SMS. The method allowed beneficiaries to opt in to give feedback on how useful the contents of the kit were and how they would like to improve it. The pilot was successful as it provided quick and actionable feedback during the first weeks of receiving the kit that was used to review the content of the kit to better meet the needs of the target population. However, there were some limitations, such as self-selection of respondents, limitations of question complexity and length, and impracticality of collecting disaggregated data which need to be considered in similar efforts in the future.

Background

The first wave of COVID-19 pandemic in March 2020 was successfully contained in Fiji, however the second wave in April 2021 developed into widespread community transmission on Viti Levu, the largest island and population centre within Fiji.

Through extensive contact tracing by the MoHMS, many primary and secondary contacts were ordered to stay at home in self-isolation in a matter of hours to avoid the spread of the virus further. Most households had sufficient WASH products or financial means to purchase supplies online or through friends and family to ensure good hygiene standards for the 14-day home

isolation period. However, many, especially those living in informal settlements where the primary income source is cash labour suffered without adequate resources. To address this, the distribution of WASH kits was initiated by the MoHMS that was provided by UNICEF and other Fiji WASH Cluster partners.

Household WASH Kit Distribution

Within Fijian communities there are strong communal aspects and households are often large. Containing the spread of COVID-19 under these conditions is difficult and led to whole communities being isolated as opposed to just individual households. Hygiene supplies in these instances were stretched further.

The initial estimated population in need of WASH kits was 20,000. The kits were distributed over six months to match the new home isolation orders given.

The contents of the WASH kits to be distributed was developed to address the needs of those with COVID-19. The protection cluster was consulted on the most relevant products for menstrual hygiene as well for the addition of information leaflets on helplines for survivors of violence and resources available to those in need of psychosocial support.

Distribution was physically distanced where distribution teams were dispatched with kits in full personal protective equipment (PPE). The kits were left at the edge of a home and the beneficiary collected the items after the team was at a safe distance.

Figure 1: UNICEF supported MoHMS surge support team delivering WASH kits to Tacirua Settlement



Source: UNICEF Pacific

Accountability to Affected Population

UNICEF and MoHMS sought beneficiary inputs both prior to distribution through needs assessments and after action to assess the relevance and impact of the response. In this context, feedback was sought in the form of a post-distribution survey of the usefulness of the kits that had been distributed during the outbreak. This was an opportunity to strengthen accountability to affected populations.

A method for collecting feedback whilst maintaining the physical distancing requirements was needed. The method also needed to avoid a large number of personnel and to avoid repeat visits to COVID-19 positive cases. RapidPro was one of several methodologies assessed.

BOX 1.

RAPID PRO

RapidPro is an open-source software supported by UNICEF to enable two-way communications using SMS or Internet-based communication tools. MoHMS has utilized RapidPro in the past for other programmes. RapidPro is connected to Viber, which can generate a URL to directly reach a designated public account, and using an external QR code generator, the QR code can be scanned via the Viber app. Alternatively, the survey can be initiated by sending an SMS to a toll-free number. These services were already in place by the UNICEF Pacific Technology for Development (T4D) team since 2016, and in conjunction with Fiji MoHMS since 2020

A brief desk study was completed to decide what feedback mechanism would best suit the Fijian context comparing telephone, physically distant household survey or RapidPro.

In table 1 below the results of the comparison are shown with each method being qualitatively

assessed on a number of criteria. Some options showed both positive and negative attributes. For example, having an interpersonal interaction between respondent and enumerator can add in comprehension of the questions and focus, but different enumerators may give bias and human error. Respondents may be overly polite about the kit, and not willing to express constructive criticism face-to-face.

The risk of accidental COVID-19 transmission outweighed the potential benefits of face-to-face surveys. The RapidPro was therefore the quickest and easiest of the methods to implement, with the phone method being costly and time intensive.

The RapidPro survey was developed through a collaboration between UNICEF T4D and UNICEF WASH teams, and then was reviewed and confirmed by the MoHMS WASH Cluster Coordinator and Chair. The whole process from conception to working survey form was 2 weeks. The communications team at UNICEF was brought in to develop an eye-catching instruction label that kit recipients would easily understand. The label was affixed to each WASH kit.

The RapidPro collection method requires the recipient to scan a QR code via Viber. The system will then register that respondent and send them a confirmation message. Questions are sent to the beneficiary after a pre-determined length of time. For this project, one week was selected to allow beneficiaries time to utilize the kit before gaining feedback. Once the respondent answers the first question it will ask the next, if an answer does not

match the question, the respondent will be sent another message to clarify the possible answers. RapidPro allows for an SMS alternative: on receiving the kit the respondent sends the message 'WASH21' to a toll-free number and a week later the questions are asked by SMS. Both systems feed back to one database which can be downloaded to spreadsheet format for analysis. The SMS method was completely free to the respondent. However, in the case of Viber the recipient would require internet.

The feedback system was developed after the first tranche of kits were delivered, as the acute need for kits was present. Over 4,000 kits with the instruction labels on how to access the survey were distributed, of which 650 respondents initially registered and 330 completed the survey between August and November 2021. The 8% response rate can be considered very good producing a sample size similar or larger than otherwise possible. The sample however is limited by the self-selection of respondents, through which it was not possible to ensure that all ages, genders and vulnerable groups were represented. In general, kits contained supplies for all household members, but only one respondent answered from each. It is difficult to ascertain if the respondents are skewed towards a particular family member. These limitations were noted and accepted given the time-sensitive distribution plan.

Figure 2: Instruction label affixed to WASH kit



Source: UNICEF Pacific Communications

Table 1: Criteria in selecting survey methodology

Criteria	Door-to-door	Phone	SMS (RapidPro)	ViberBot (RapidPro)
Beneficiary				
Technological Accessibility	10/10	9/10	7/10	6/10
Interpersonal	Very personable, dependent on Enumerator	Medium, some human-to-human interaction	Automated Computer	Automated Computer
Cost to Beneficiary	0	0	0	Cost of Data
Question Clarity	Very clear, possible to explain questions by enumerator	Good clarity, possible to explain but could be lost over the phone	Limited clarity, difficult to ascertain if understood	Limited clarity, difficult to ascertain if understood
COVID-19 Transmission Risk	High	None	None	None
Costs				
Initial Setup Resources	Tech Team for digital survey tool	None	Tech Team for RapidPro tool	Tech Team for RapidPro tool
# Vehicle-days /1000 beneficiaries	40	0	0	0
# Personnel-days /1000 beneficiaries	80	12.5	0	0
Other Costs	Fuel, Phone, Credit	Phone, Credit	Costs of SMS	None
Survey				
Practical limit to speed of data collection	100 beneficiaries/day (with 10 enumerators, drivers and vehicle)	300 beneficiaries/day (with 10 operators)	Unlimited	Unlimited
Active/ Passive	Active	Active	Passive	Passive

Survey Results

The survey was kept as short as possible to maximize uptake and minimize incomplete responses. It consisted of 4 questions:

1. Rate how useful was the kit
2. What was the most useful item?
3. What was the least useful item?
4. What could be improved/added to the kit?

RapidPro offers a dashboard to display analytics of when responses were given as well as a flow diagram of the responses. This helps developers find bottlenecks in the survey and improve clarity. Minor changes can be made as the survey is carried out.

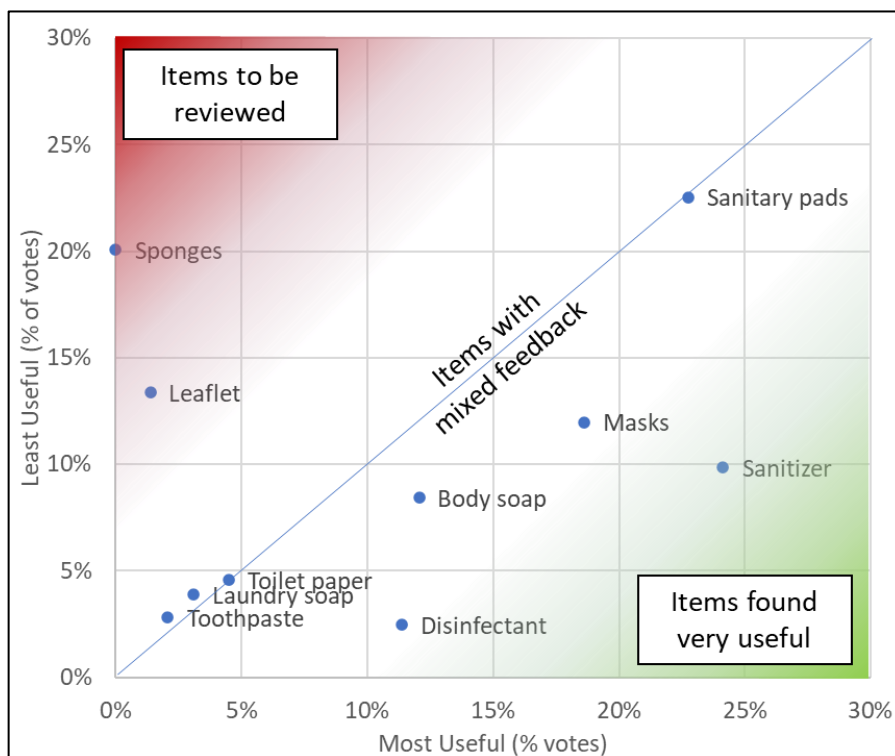
The answers are summarized in graphs on the dashboard but not exportable without the use of an application programming interface (API) which was not within the scope of this pilot. The raw

data was downloaded and summarized in an excel spreadsheet with key results listed here:

- 2% found the kit not useful at all
- 73% found the kit extremely useful
- Sanitizer, sanitary pads and masks were reported as the most useful
- Sanitary pads, sponges and leaflet were reported as the least useful
- Sanitary pads were reported as both useful and not useful highlighting limitation within survey.
- 21% reported that no improvement could be made to the kit.

The overwhelming conclusion was that the intervention was successful, with the affected population generally happy with the contents and found the kit extremely useful. However, the results also indicated some items that should be reviewed and considered if they should be changed, or further consultation is required.

Figure 3: Results for “How Useful was the Kit?”



Source: Author based on data collection

- Sponges ranked highly for least useful and gained no votes as most useful
- The leaflet with protection referral tree and helpful contacts ranked significantly high in being least useful.

Some items had mixed reviews, which indicates that their utility is not universal amongst recipients. These items could benefit from being distributed as separate items to improve targeting to those who are in need.

These observations aid in the decision-making processes in kit review and ensuring that affected populations are being provided with suitable items to their needs. Due to the rapid feedback whilst the response is ongoing, it allowed for these reviews and adjustments where necessary to take place in a timely manner.

Lessons Learnt

What went well

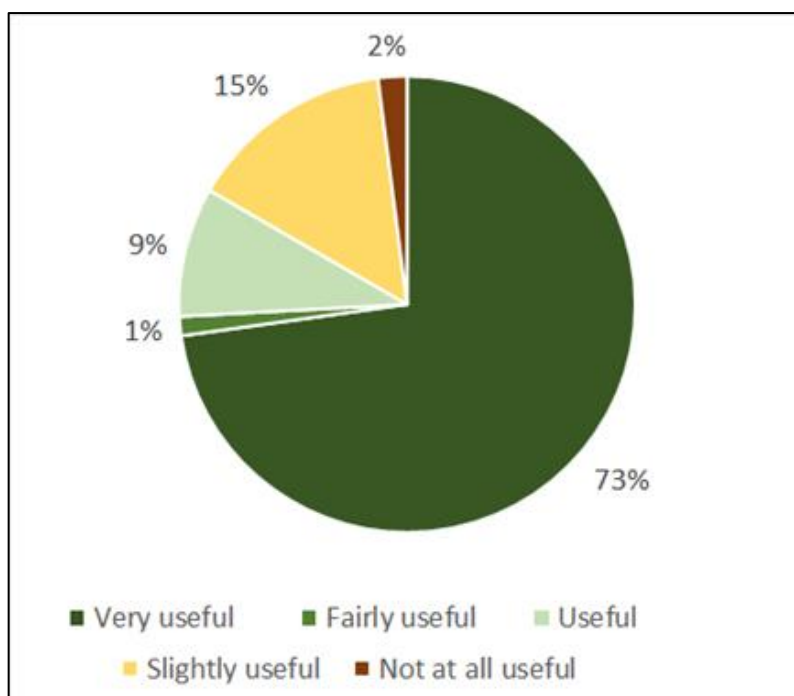
The RapidPro tool was able to capture data during the response as opposed to weeks or months afterwards without great expense.

After initial setup, there was no ongoing running costs (apart from printing stickers and banked bulk SMS consumed by the survey) or human resources required to expand the survey.

The timely and inexpensive aspects of RapidPro could have a strong positive impact on future emergencies if a workflow can be setup for tailoring and deploying such surveys. Surveys using RapidPro in UNICEF has had similar results of providing useful and timely feedback.

A benefit was that each recipient household was given the opportunity to take part in the feedback, which provides an opportunity for a large sample

Figure 4: Results for “How Useful was the Kit?”



Source: Author based on data collection

size without increased cost. In addition, remote survey limits the potential for acquiescence bias.

Managing and accessing the data is simple and already in a useful excel format. This avoids time heavy data processing from paper or other formats.

Approximately one third of respondents used Viber rather than SMS, suggesting that both systems were effective, and that SMS was needed to be included in the methodology.

Limitations

Sanitary pads appeared as both most and least useful, this is most likely due to the nature that female respondents would find this item useful whereas male respondents would not. However, a similar RapidPro survey in rural Pakistan found similar results and attest this to lack of information on menstrual hygiene products (McBride E., 2015). It is likely that women in urban Fiji have a good comprehension of menstrual hygiene products as they are commonplace. However, it would be prudent to consult with the protection cluster as well as carry out further studies into this to ensure that kit contents are useful to as many recipients as possible.

The largest limitation of the pilot was the lack of data disaggregation by gender, age or otherwise. To collect this data during a survey by SMS or short messages is both cumbersome and repetitiveness of data collected at the time of the response leading to survey fatigue by beneficiaries.

Due to data/reception connectivity, the system does not support long surveys or detailed questions. It is likely to result in a larger percentage of incomplete responses.

When collecting more open-ended questions such as 'what could be improved?' it is difficult to sort into manageable data to action. An enumerator can categorize requests as they carry out the survey.

Similarly, it is difficult to formulate questions where multiple answers are required, for example in the question 'which items did you need more of?'

The tool requires the recipient to have a good understanding of SMS or Viber and be in possession of a phone. During the project, this capacity was strong within the vast majority of the target population. However, this should be considered at the outset of new projects.

Respondents were asked if they wished to proceed with the survey, a number of which didn't reply with exactly "OK" and were not surveyed. This highlights the importance of how the RapidPro campaign is initially set up.

Figure 5: UNICEF and MoHMS teams delivering WASH kits to Qauia Settlement



Source: UNICEF Pacific

Next Steps

To maximize the utility of RapidPro, it is important to clearly outline the objectives of the survey, and review against the selection criteria presented in Table 4 to assess if it is the right tool.

It is important to select questions that ensure the data output is useful and well organised. In this instance the data was not fully disaggregated. But it would be possible to implement questions such as # beneficiaries, # children, # women and girls in the future. A balance must be found between asking too many questions but getting the necessary data. Where internet connectivity is very widespread within the target population, other internet-based data collection tools with stronger capacity to handle complex logics (e.g., multiple selection) are likely to be more versatile. As the majority of respondents used SMS, this was not applicable in this context.

Table 4: Objectives and Methodology Selection

Objective	RapidPro	In Person
Need Rapid Data	Yes	No
Need > 5 Questions	No	Yes
Detailed/Complex questions	No	Yes
Disaggregated	Partially	Yes
Limited Personnel Available	Yes	No
Fully Accessible	No	Yes
Remote Locations	Yes	Yes
Poor Data & Reception	No	Yes
Limited Budget	Yes	No
Socially Distanced	Yes	No

Preparation of standard forms for post distribution monitoring surveys in RapidPro for use by UNICEF would allow for quick uptake of this methodology. By consulting with other Country Offices and the Technology for Development team on their experiences and tried and tested systems in other countries, the effectiveness of the forms can be maximized. Those forms could then be pre-tested within Fiji to ensure a good response within the local context. By standardizing the forms, information management teams can easily compare data across events and time and quickly link to cluster dashboards.

Integrating data collected at the time of delivery/ need assessments such as beneficiary disaggregation and location data would enable easier information management. The data would be simply tied to the mobile phone number taken at the time of delivery to be used in the upcoming questionnaire. In this respect, after action surveys and aid delivery would be integrated as a single continuous product delivery. It would increase the utility of RapidPro as a tool and only require asking the simpler questions.

Augmenting RapidPro surveys with more traditional means of phone and in-person surveys would allow for a moderate solution that mitigated some of the shortcomings of each method. A multi-faceted approach also would allow a critique of the systems in a very similar context and assess the quantity of bias and variations between the different methods. This mixed methodology would ensure certain marginalised or underrepresented groups would be included, whilst allowing a larger total sample size with the cost and time savings associated with RapidPro surveys.

Using the data found in the survey it is most important to turn this into actions in preparation and WASH kit distribution moving forwards. The data and feedback received should be rolled into other AAP programming activities outside of a humanitarian response.

Conclusion

The RapidPro tool was an excellent tool in collecting data quickly and directly from source. It is well suited to areas where physical access is restricted, and the data needed to be collected is simple in nature. It has some limitations and places the onus on the recipients of aid to be more proactive in their engagement. Although the tool was extremely useful in the context of this pilot, in each scenario should be considered alongside other data collection methods and not assumed to be the most appropriate. As the data output from RapidPro is well organized and laid out, it is easy and fast to process that data and quickly draw conclusions and present the findings. Due to the speed from aid delivery all the way to data analyses, it is an easy way to solicit feedback from the affected population, raise concerns that have been identified and modify aid provision where necessary and in doing so meet one of the key requirements of relief efforts in a humanitarian response.

Photo Credits

Tim Harford-Cross, WASH in Emergencies consultant

UNICEF Pacific Communications

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