GUIDANCE BRIEF

Guidance for Health Care Worker (HCW) Surveys in humanitarian contexts in LMICs

Developed by the Analytics for Operations & COVID-19 Research Roadmap Social Science working groups to support those working with communities and healthcare workers in humanitarian and emergency contexts.

This document has been developed for response actors working in humanitarian contexts who seek rapid approaches to gathering evidence about the experience of healthcare workers, and the communities of which they are a part. Understanding healthcare worker experience is critical to inform and guide humanitarian programming and effective strategies to promote IPC, identify psychosocial support needs. This evidence also informs humanitarian programming that interacts with HCWs and facilities such as nutrition, health reinforcement, communication, SGBV and gender.

In low- and middle-income countries (LMIC), healthcare workers (HCW) are often faced with limited resources, equipment, performance support and even formal training to provide the life-saving work expected of them. In humanitarian contexts[1], where human resources are also scarce, HCWs may comprise formally trained doctors, nurses, pharmacists, dentists, allied health professionals etc. as well as community members who perform formal health worker related duties with little or no training[i]. These HCWs frequently work in contexts of multiple public health crises, including COVID-19. Their work will be affected by availability of resources (limited supplies, materials), behaviour and emotion (fear), flows of (mis)information (e.g. understanding of expected infection prevention and control (IPC) measures) or services (healthcare policies, services and use). Multiple factors can therefore impact patients, HCWs and their families, not only in terms of risk of exposure to COVID-19, but secondary health, socio-economic and psycho-social risks, as well as constraints that interrupt or hinder healthcare provision such as physical distancing practices.

The development and dissemination of training and guidance for HCWs is important for any new infectious disease outbreak. Equally, evaluation of their appropriateness and utility, their impacts on HCW performance and behaviour, and their effectiveness (perceived or measured against programmatic outcome indicators) is important to adapt and improve the appropriateness and effectiveness of resources for HCWs.

We recommend HCW surveys are included as a critical component of research associated to humanitarian programming for communities and community health outcomes.

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1   Including both natural hazard-driven disasters and conflict-driven disasters

Surveys with HCWs in humanitarian contexts in LMICs should:

1. **CONSIDER DIFFERENT CATEGORIES OF HCW DURING SAMPLING**

2. **BE FLEXIBLE IN THEIR DATA COLLECTION METHODS**

3. **BE CONDUCTED AT REGULAR INTERVALS (to measure change over time)**

4. **EXPLORE PERCEPTIONS AND BEHAVIOURS, NOT ONLY LEVEL OF KNOWLEDGE**

5. **SERVE AS AN INDICATOR TO MEASURE SECONDARY IMPACTS OF OUTBREAKS AND INTERVENTIONS**

6. **BE INCLUSIVE OF MINISTRY OF HEALTH, RESPONSE AND DEVELOPMENT WORKERS IN HEALTHCARE AND IPC WORK**

7. **BE AWARE OF POTENTIAL BIAS AND LIMITATIONS THAT MAY ARISE, AND ADDRESS THEM**

8. **BE MINDFUL OF ETHICAL CONSIDERATIONS[2]**

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2   Any evaluation or routine data collection will need to explicitly take into account (if unknown, preferably through an initial situational analysis or at minimum, initial consultations with key stakeholders) any local fears, concerns or political issues in relation to the HCW and the services delivered. For example, recognition may be needed that communities may have fears that critical analysis of a HCW may result in the cessation of services. It is for this reason among others that ethical implications of any evidence generation at the outset needs to be considered, reflecting on issues like potential harms and benefits to design strategies such as means to convey that the data collection does not imply that services will be at risk of being removed.

1.

UNDERSTAND DIFFERENT HCW CATEGORIES

Before conducting any HCW survey, it is important to identify HCWs working in different roles within any given context[ii]. These may include community health workers (CHW), traditional healers or practitioners Red Cross volunteers, volunteers with other NGOs, or pharmacists, on which communities may rely for specific healthcare treatment or first diagnostics. They may be formal or informal settings and must be identified prior to developing any survey or study. Data may already exist, however during crises, there may have been serious changes in community health seeking behaviour over short periods of time.

Identification or mapping of HCW categories should be done across different levels, including those structures and individuals identified within the Ministry of Health system as well as informal services or individuals. To ensure this mapping is correct and representative of the reality, focus groups should be conducted with different members of a community to understand:

1. The different types of HCW, services and structures which exist
2. Types of services perceived to be provided by specific structures or individuals
3. Who use and trust which service and why

It will be important to understand the influence of specific HCWs within communities, and where appropriate and when it will not place persons at risk, pro-actively seek out information on HCWs and services which may be less visible or purposively hidden.

When possible, all HCW surveys should seek to compare the services and any possible changes (in use, trust, perceptions of community and of HCW) over time.

It will be important to note the differences in questions and surveys which are conducted with HCWs within a structure (looking at healthcare facilities (HCF) and not only the individual) versus surveys with individual HCW.

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2.

BE FLEXIBLE IN DATA COLLECTION METHODS[iii]

2.1. Qualitative data collection[iv]

Opportunities	Cons	Examples
Provide nuanced understanding of causes (of risk, changes in healthcare services use) Provide perceptions for causes of health outcomes, of certain "successes" vs. "failures" in health services, systems or interventions Ability to probe and unpack "why" and "how" questions Themes and issues raised are not controlled by the researcher, and so can provide a better reflection of reality Can be the basis of an ongoing working group to develop interventions, enhance community engagement and evaluate progress.	Takes more time to analyse data (qualitative coding) Are often perceived less rigorous and therefore more challenging use as basis to influence policy decisions (easier to influence the specific structure/ programme) It can be challenging to interpret when there is disagreement within discussion groups or between them (including managing outlying data).	Using to triangulate health services use data (interviews over time to explain potential causal factors) e.g. CASS longitudinal study in DRC

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2.2. Participatory inclusion

Opportunities	Cons	Examples
Can use dynamic tools (barrier mapping, scoring etc.) Involvement of HCW in developing the solutions (center-specific, action oriented) Can influence directly in programmes by those involved in healthcare provision Can increase a sense of ownership in solutions. "Champions" can be identified. Red Cross volunteer survey looks at interactions with communities, work capacity, dynamics, and information	Limited strategic influence (opportunity to compile across multiple locations-analyse and code for similarities which could then influence larger scale)	MDM example of qualitative HCW survey in Guyana MDM guide to qualitative data collection Red Cross volunteer survey

2.3. Remote quantitative data collection using mobile, SMS, WhatsApp or other online digital modalities

HCW would be invited to participate in a survey by WhatsApp or SMS (either one time or over time)

Opportunities	Cons	Examples
Permit remote or limited access alternative Frequent / regular questionnaires possible Use fewer resources Can use surveys across locations or over time to measure change	Survey questions must be limited and in locally appropriate languages Requires phone numbers and that participants have access to credit, or a system is in place for reimbursement (can exclude low-income and less formal HCW) Difficult to engage respondents and ensure full participation (e.g. completion of survey) May be more challenging to systematically sample the population for representativeness. Ethical considerations for how phone numbers are accessed must be considered with a preference for de-identified data	U-Report Example in India of questionnaire on google forms and link shared via WhatsApp WHO Online survey tool Sample analysis of online tool

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2.4. Quantitative phone call or face to face interviews

Opportunities	Cons	Examples
Possible to use tables (even with phone) Easy to analyse quantitative data, particularly to analyse associations between different factors Can use surveys across locations or over time to measure change Ability to include private healthcare facilities which would not be included in DHIS2 data Using Kobo (or similar tools for quantitative data collection and analysis), questionnaires can be translated and shared across locations ** using tools such as Kobo can secure the privacy of the individual and the confidentiality of data Health authorities and public health responders may be more attentive to quantitative data and statistical analysis.	Phone surveys may be expensive (credit) and could exclude those HCW that are more vulnerable due to lack of economic resources or excessive burden of work Quantitative surveys can limit understanding of causal factors (limited without qualitative) KAP-B surveys can be expensive and time consuming to plan and collect with adequate sample size. Ethical considerations for how phone numbers are accessed must be considered with a preference for de-identified data	CASS HCW surveys from Ebola (conducted face to face) Presentation of cross-location HCW surveys CASS HCW surveys from COVID (done via phone and face to face) WHO HCW survey Example of HSRC and University of KwaZulu-Natal South African HCW COVID survey & guidance Johanniter KII (mixed methods) in Afghanistan

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3.

BE CONDUCTED AT REGULAR INTERVALS
(to measure change over time)

Setting up HCW surveys as early as possible can provide a baseline to understand:

· Changes in community behaviour (reported healthcare services use)
· Changes in HCW behaviour (IPC measures)
· Perceived causes of any reported behaviour change (community and HCW)
· Changes in support received
· Changes in perception of needs (information, materials)
· Changes in perceptions of risk
· Changes in individual impacts (community dynamics and trust, stress, fear, burnout)

Although all questions do not need to be the same to compare over time, ideally some key questions should be kept similar over time for comparison.

Suggested minimal intervals are every 3 months (depending on field capacity). Some **strategies to collect data from HCW over time could include**:

1. Creating templated questions and analyses codes that would be used over-time
2. Training and retraining a core team to manage data collection
3. Equipping team with appropriate materials to compare data over time
4. Using rating or scoring systems (e.g. Likert scales) to easily compare data over time

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4.

EXPLORE PERCEPTIONS AND BEHAVIOURS, NOT ONLY LEVEL OF KNOWLEDGE

Surveys with HCWs provide an opportunity to explore the perceptions and behaviours of both HCWs and communities. HCW surveys conducted inside a structure will differ from those conducted with community-based HCWs, and it will be important to note the different categories of HCW and location of interview.

HCW working in humanitarian contexts may have very limited resources; questionnaires must be developed mindfully and reflect the realities (structural, systemic, contextual) within which HCW surveys are operating.

Specifically, **surveys can be used to better understand or measure**:

1. **Perceptions of risk**
- For infection (individual, nosocomial)
- Perceived reasons for risk (causes of)
- Perceptions of what is needed to mitigate risks
- Possible risk to family (extension or risk of transmission)

2. **Perceptions of capacity to apply IPC guidelines**
- What is perceived to work best and why
- What information/ materials influence capacity

(including language/ supported supervision)
- Role of individual HCW vs. role of facility

3. **Capacity to dialogue and explain to patients**
- Information needs for HCW (key barriers to dialogue with patients)
- How to reinforce confidence
- Understanding of how to compare diseases, scenario planning with patients

4. **Perceptions of community dynamics and risk (of violence/ tensions)**
- Trust of healthcare workers
- Trust in services provision
- Tensions

5. **Individual impact**
- Self-perceived mental well-being
- Individual levels of stress

6. **Quality**
- Quality and comprehensiveness of services provided
- Changes in time spent with individual patients, delivery of elective or non-urgent procedures, scope of services offered etc.

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5.

SERVE AS AN INDICATOR TO MEASURE SECONDARY IMPACTS

When DHIS2 data is available, this will not include data relating to private healthcare facilities (HCF). HCW surveys are an opportunity to measure secondary impacts on access to health services, both private and public, allowing for analyses comparing healthcare service use across both structure types.

Key questions which can **support and triangulate DHIS2 data** (or supplement when data does not exist) should include perceived healthcare services use and changes over time. When DHIS2 data are not available, questions in surveys can include request for numbers of patients in the past month(s)[v]. Specific attention to sexual, reproductive, maternal and child health services should be considered.

Use: Questionnaires could consider asking directly for the number of patients during the past X number of months to compare over time. Understanding both causes of any changes in use (ex. changes in cost of transport vs. fear of HCF) and impacts in changes (decreased number of patients has resulted in less pay, or increases in overcrowding and perceived risk of infection)

Access: Questions should also cover access to services for communities. Understanding perceived causes for any change in community healthcare services use (which services, what factors have influenced and why)

Availability: Questionnaires should consider asking if the availability of services have changed. For example, the number of HCW available, the working hours, patient waiting time or overall quality of services.

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6.

BE INCLUSIVE OF LOCAL RESEARCHERS, THE MoH, RESPONSE AND DEVELOPMENT WORKERS IN HEALTHCARE AND IPC WORK

To ensure access (physical, language, acceptance) to all forms of HCW and services, it is critical to hire and train local researchers for data collection[vi].

To ensure the use of survey results, terms of reference, questionnaires and plans for the application of results should be developed together with MoH, IPC, WaSH or healthcare actors including sectoral coordination platforms such as the IASC Clusters, and with commissions working on the response. Limiting inclusion may result in rejection of study results, poor timing of studies (missing pre/post interventions) and lack of appropriation and application of findings.

Results should be presented for different actors working with HCWs to identify appropriate actions and use of results. Researchers should be prepared to develop presentation of results for different audiences to encourage and facilitate their use. Whenever possible, provide regular feedback on the progress of the study to the stakeholders in the process.

Examples of results, presentation and monitoring of actions based on results from HCW surveys are available through the online link here.

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7.

IDENTIFY AND ADDRESS POTENTIAL BIAS AND LIMITATIONS

Bias may be introduced to a study at any stage, whether it be during questionnaire development, research team training, data collection, analysis, or publication. It is vital that researchers can acknowledge and explain areas of bias during presentation and reporting of results, unpacking any potential implications. Research teams should be involved in reflection following data collection, entry, and analyses to understand the extent of bias, and if verified, how these may impact the data. Bias should be mitigated through appropriate study design and implementation, which may include the following:

- Triangulating data with external sources (DHIS2, epidemiological analyses, markets data, other reports)
- Integrating qualitative and quantitative data, or comparing community surveys with HCW surveys (ask comparative questions)
- Reproducing a study over time to monitor trends
- Reviewing questionnaires (meaning and objective of questions) with all data collectors

Relevant types of bias

1. Desirability bias

Respondent answers survey questions in the manner that they think will be viewed favourably by the researcher[vii]

Examples
- Wanting to "perform well", HCWs may report that their perceived knowledge or capacity is greater than it is
- HCWs believe that humanitarian researchers seek "pessimistic" situation reports, and so provide overly negative responses to surveys that may not match with reality

Opportunity to mitigate bias
- Provide an extremely clear introduction and purpose of the study before beginning the survey
- Vary the structure of survey questions (e.g. Likert scale, multiple choice, yes/no)
- Ask questions which triangulate data
- Ensure and repeat throughout the survey that the questionnaire will not influence interventions
- Assure participants that their responses will be anonymous (should encourage more open/ honest feedback)

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2. Negative response bias

Participants inclined to provide response at extreme ends of a scale[viii]

Examples

· HCW only had one negative interaction with one individual community member, but it was recent and upset them, therefore they report that there are problems with "the community" as a whole

Opportunity to mitigate bias

· Include questions in survey that compare changes in perception, attitude, behaviour over time
· Vary the structure of survey questions (i.e. Likert scale questions particularly at risk of this bias type)

3. Recall bias

Recollection of past events becomes aligned with current thoughts and perceptions[ix]

Examples

· HCW report decrease in use of services, because the during the week they were surveyed, they personally consulted fewer patients, despite no real reduction

Opportunity to mitigate bias

· Compare survey reports to DHIS2 data to see whether perception matches reality
· Ask questions about events that took place in the recent past
· Ask about events that are frequently occurring

4. Apophenia bias

Human tendency to perceive meaningful patterns within random data[x]

Examples

· HCW recalls a reduction in services use because they have read reports that this was to be expected as a result of a particular public health crisis

Opportunity to mitigate bias

· Ensure sufficient sample size
· Triangulate survey data with evidence from other sources

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8.

BE MINDFUL OF ETHICAL CONSIDERATIONS

Ensure that participants, communities, and healthcare workers are respected and protected throughout the research process, with appropriate consideration for the sensitivities of communities in relation to HCWs and their roles.

Before beginning a survey, a table of risks should **be created and reviewed together with the national research team. Tables of risk should be reviewed on an ongoing basis, and additional risks added if identified.**

To provide a starting point for discussion, below is an example of a non-exhaustive table of risks to support ethical practice.

Risk	Strategy to address, mitigate against or limit risk	Support resources and systems required to address risks **key to have an individual responsible for this**
Data collectors cause distress to participants.	Clear system in place to facilitate, follow up and manage complaints and provide relevant support pre, during and/or post research programme. Identify appropriate time / location/ individuals who should collect data.	· Contact focal point for complaints · Community information regarding local sensitivities · Informational materials on lodging a complaint · Materials and program to train collectors · System for dealing with violations · (should be communicated to participants as well)
HCW fear that they must participate and respond correctly otherwise their work/ support to work or programming may be at risk.	Explain consent and how participation is entirely voluntary (have the informed consent transcript embedded in the tablet/ phone). Explain that answers will not affect work/ support/ programming. Use data collectors who are not related to any health/ IPC, NGO or government services.	· Internally, organisation should separate data collectors from responders (ex: health / WaSH teams should not directly collect data) · Use data collectors who are not related to any health/ IPC, NGO or government services · Reinforce training on informed consent

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Risk	Strategy to address, mitigate against or limit risk	Support resources and systems required to address risks **key to have an individual responsible for this**
Part or all of the geographical terrain that some of the enumerators will need to traverse are not safe.	Hire and recruit from areas where people are already based (no requirement for movement) if movement within the area is safe. No strategy should transfer risk to national/ local research teams. Conduct phone, mobile or SMS surveys when appropriate/ feasible.	· Situational analysis to determine whether it is safe for research to take place · Wages/ payment reflect local rates so that there is no skew on decision-making around risk-taking · Consider salaried positions rather than payment for deliverables to avoid high risk decisions · Create safe space and culture where research team/ data collectors can express concerns and be heard (see action take following concerns raised)
Unrest occurs before or during data collection.	Cease all data collection ** depending on the level of unrest/ crisis, HCWs need to prioritise their own well-being and care provision over data collection (even remotely).	· Situational analysis · Do not transfer risk to national/ local research teams · Traffic light guidance on when to stop and proceed with research (developed prior to starting work)
Surveys may interfere with critical activities of participants.	Ensure the timing of the surveys are appropriate and do not interfere with critical activities such as receipt of goods or services, or employment etc. Support research team/ data collectors to arrive in healthcare facilities at appropriate times. Arrange and agree with healthcare workers when are appropriate times to organise interviews.	· Situational analysis around work times/ HCW schedules · Create space with research team to discuss data collection times which are safe for both researchers and HCW · Limit team size collecting data
Exposure to infection or transmission among or between data collectors, HCW and their communities.	Determine exposure risks (geographic location) and do not proceed if unsafe (or teams report feeling unsafe) Develop protocol (SOPs) for safe data collection Teams sign agreements to abide SOPs/ protocols (reinforce behaviour)	· Create a culture of safety to raise concerns regarding transmission · Provide training to teams on disease transmission, risk, and options for mitigating risk
Exposure to community antagonism as a result of community distrust in Response actors (MoH/UN/ NGO).	No attire that visibly identifies researchers/ data collectors with programming (UN/ WHO/MoH) while ensuring appropriate identification is near to hand. Reconsider transport options (motorbikes or non-branded cars).	· Training teams and identifying best options · Consider appropriate times for branded clothing and vehicles

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THE ANALYTICS FOR OPERATIONS WORKING GROUP
- FOR PUBLIC HEALTH EMERGENCIES IN HUMANITARIAN SETTINGS

The Analytics for Operations Working Group (AfO) is composed of researchers from academic institutions, non-governmental organisations and UN agencies who are directly working in operational research in humanitarian settings. Chaired by the **Cellulle d'Analyse en Sciences Sociale / Social Sciences Analytics Cell (CASS)**, the AfO aims to provide and facilitate better access to tools, guidance, lessons learned and technical support on using integrated, social sciences research and evidence to inform outbreak response in humanitarian settings. **CASS** is a multi-actor operational social sciences research platform hosted and supported by UNICEF to strengthen Multi-disciplinary Outbreak Analytics. Since 2018, the CASS has worked to bring together different actors from academic and applied research (epidemiologists, health analysts, social scientists, market and other researchers), governments, UN and NGOs (national and international) to inform public health strategies and response in outbreaks in humanitarian contexts. (link to CASS google drive)

The WHO COVID-19 Research Roadmap Social Sciences working group was convened by WHO in February 2020 to set out priority areas for research during the COVID-19 pandemic. In July 2020, research priorities were reviewed to focus on emerging areas in need of attention. The Research Roadmap highlighted an urgent and persistent need for evidence to understand and address the impacts of COVID-19 on health workers in formal and informal community and hospital settings. The social science working group actively supports initiatives aligned with Research Roadmap priorities. Collaboration with partners working in humanitarian settings is key to achieving these goals. These collaborations are supported by the research arm of GOARN. (link to research roadmap)

These two social sciences working groups operating at a global level work together to ensure effective exchange between different locations and settings in COVID-19 and public health emergencies.

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CASS HCW survey tools

The following folders include Terms of Reference, Questionnaires (tools) and Presentations of results

1. Healthcare worker survey with section specifically looking at perceptions of new IPC protocols (changes in protocols) **Implemented with HCF supported and non supported by IPC training for comparative analysis (links here & here)

2. Healthcare worker survey on perceptions of risk, knowledge, behaviour and the impact of Ebola on healthcare worker-community dynamics: folder with multiple questionnaires in French, HCW quantitative survey

3. Healthcare worker survey on COVID-19: perceptions of risk, impact of COVID on health services use, community and HCW dynamics, personal and individual impact (link here)

4. Summary of studies and recommendations related to traditional practitioners (link here)

5. Studies, results and actions taken based on evidence for reinforcing health seeking behavior in IPC supported facilities (link here)

6. Sample questionnaires for Red Cross volunteers (link here)

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