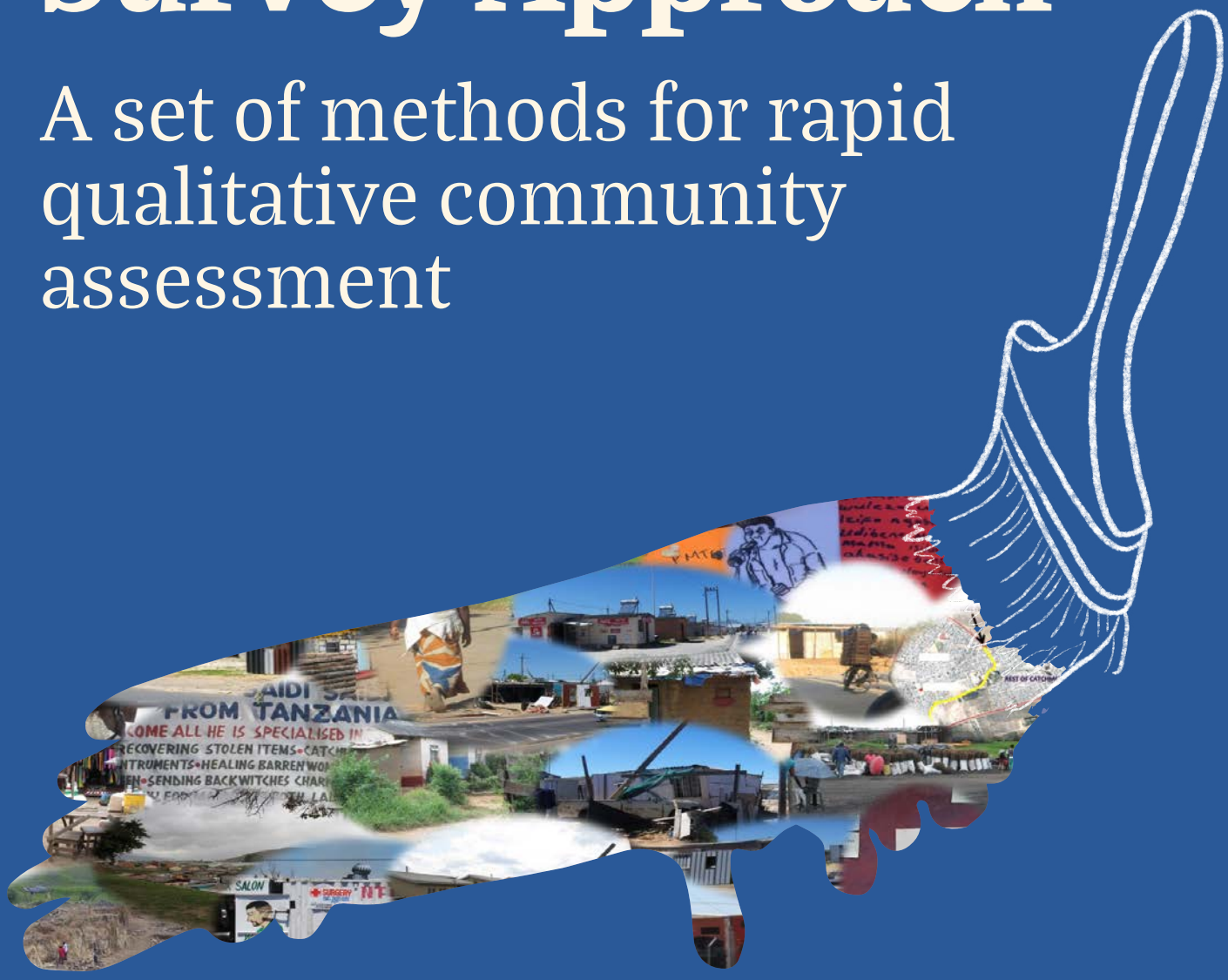
The Broad-Brush Survey Approach

A set of methods for rapid qualitative community assessment




LONDON
SCHOOL of
HYGIENE
&TROPICAL
MEDICINE


University of
Sheffield


THE UNIVERSITY OF ZAMBIA
SERVICE AND EXCELLENCE


Zambart
Research and Development
to Improve Health for All


DESMOND TUTU
tb
CENTRE • SENTRUM • IZIKO
UNIVERSITY I STELLENBOSCH I UNIVERSITEIT
Every breath counts


Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT
forward together
sonke siya phambili
saam vorentoe

Authors:

Virginia Bond, Melissa Nel, Melvin Simuyaba, Taonga Chirwa, Bwalya Chiti, Sue Clay, Dumile Gumede, Heinz Jacobs, Zenzile Mhlanga, Justina Muchelenje, Erastus Mwanaumo, Nicole Nel, Nothando Ngwenya, Janet Seeley, Musonda Simwinga, Vanessa Speight, Lario Viljoen, Graeme Hoddinott

Illustrations:

Orli Setton

Design and cover illustration:

Emma Charleston

2023

Suggested citation:

Bond V., Nel M., Simuyaba M., Chirwa T., Viljoen L., Chiti B., Clay S., Gumede D., Jacobs H., Mhlanga Z., Muchelenje J., Mwanaumo E., Nel N., Ngwenya N., Seeley J., Simwinga M., Speight V. Hoddinott G., 2023 *The Broad-Brush Survey Approach: a set of methods for rapid qualitative community assessment*. Zambart/London School of Hygiene & Tropical Medicine. DOI: https://doi.org/10.17037/PUBS.04670788

Acknowledgements:

The work for this manual was funded by the British Academy's Urban Infrastructures of Well-Being 2019 Programme, supported under the UK Government's Global Challenges Research Fund. The specific grant under the programme was "A method for rapidly assessing context in urban communities to optimise public health interventions: the case of water infrastructure in sub-Saharan African cities", 2019-2022, Award No: UWB190141. The grant team wrote this manual. We would like to acknowledge the support of the London School of Hygiene and Tropical Medicine who led the grant, and the institutional research partners: Zambart (Zambia); School of Engineering, University of Zambia; University of Stellenbosch (South Africa); and Sheffield University (UK). We would like to dedicate this manual to Emeritus Professor Sandra Wallman, whose desire to be useful as a social anthropologist led to the application of BBS across regions and topics.

Contents

Abbreviations

AHRI: **A**frica **H**ealth **R**esearch **I**nstitute

BBS: **B**road **B**rush **S**urvey

CAB: **C**ommunity **A**dvisory **B**oard

CAPIDD: **C**ommunity, **A**ctivity type, **P**articipant type, **I**nitials of data collector, **D**ocument type, **D**ate (acronym for labelling research data files)

FGD: **F**ocus **G**roup **D**iscussion

FGS: **F**emale **G**enital **S**chistosomiasis

GIS: **G**eographic **I**nformation **S**ystem

GPS: **G**lobal **P**ositioning **S**ystem

HIV: **H**uman **I**mmunodeficiency **V**irus

KII: **K**ey **I**nformant **I**nterview

NGO: **N**on-**G**overnmental **O**rganisation

RA: **R**esearch **A**ssistant

RINSS: **R**apid assessment of urban communities to optimize public health **IN**terventions: water infrastructure in **S**ub-**S**aharan Africa

SES: **S**ocio-**e**conomic **S**tatus

SOP: **S**tandard **O**perating **P**rocedure

TB: **T**u**b**erculosis

UTT: **U**niversal **T**esting and **T**reatment

WASH: **W**ater, **S**anitation and **H**ygiene

WHO: **W**orld **H**ealth **O**rganisation

ZAMSTAR: Zambia South African TB and HIV Reduction Study

Foreword

Using a combination of qualitative data collection methods to collect data rapidly from a place on a particular topic is not a novel idea. Rapid participatory and qualitative appraisal approaches have been used in many different settings for the past 40 years, with the influential scholar Robert Chambers, and those he worked with, doing much to shape the practice from the 1970s. The methods spread beyond a rural, agriculture focus (Chambers, 1994) to embrace urban settings and the assessment of health and other areas of interest as well as settings in the Global North as well as South (Annett and Rifkin, 1995, Murray et al., 1994). I first used these approaches in the 1980s, while working in the Annapurna foothills in Nepal at an agricultural research station. We established the practice of a one week data collection exercise, which we called a `Combined Trek' where a group of scientists from different disciplines, including me – a social anthropologist – systematically collected information using interviews, observations and discussions in a village and the surrounding area – working closely with the local people. Our purpose was to inform future agricultural interventions, building from what people were already doing.

Cecilia Vindrola-Padros and Ginger Johnson (2020) detail in a review article how different qualitative methods have been adapted to be used to collect data rapidly. The need for speed, as they explain, has been a response to the increasing pressure many of us are under to deliver study findings quickly. Their review sets out how conventional methods have been adapted to be used rapidly in different settings. Among the combination of methods that they describe is the `rapid ethnographic assessment'. This assessment approach has grown as a response of anthropologists to pressure to produce results far more quickly that more conventional ethnographic approaches would allow. This set of methods is described in detail in the recent manual produced by Sangaramoorthy and Kroeger (2020). We are not, therefore, claiming that the approach set out in this manual is particularly novel nor indeed unique. The Broad Brush Survey, described in this manual is an approach originally developed by Valdo Pons (1993, 1996) and further developed and popularized through the work of Sandra Wallman (1996), which can be used to capture both the landscape and 'feel' of a community and the people in it. The research findings can be used to shape further investigators or interventions to address the problem at hand in a useful and practical manner rapidly, succinctly and systematically. This `Broad Brush Survey' approach manual is, therefore, a contribution to the burgeoning literature on methods for rapid qualitative data collection methods and assessment.

The use of the word 'survey' in the title of the set of methods may be perplexing to those who consider the term to be synonymous with `questionnaire'. This

is not the way we use the word – the Oxford English Dictionary offers several definitions of word `survey', which include `the act of viewing, examining, or inspecting in detail [...] for some specific purpose' and `the, or an, act of looking at something as a whole from a commanding position; a general or comprehensive look'. Both definitions convey the sense of our intention: to engage with, and in, a community for a short but concentrated period of time, seeking quickly, but thoroughly, to take a comprehensive look at the place for a specific purpose, and document the place at that moment in time.

As we explain in the first chapter, the approach is systematic with a defined sequence of qualitative data collection methods, which gradually allows the user to build an understanding of place and people. The combination of methods used, however, is not set in stone and can be adapted to suit the purpose at hand. As such we hope that this manual serves as a guide to the possibilities which using this approach can offer both for those working in interdisciplinary projects as well as those from anthropology and sociology, for example, laying the groundwork for in-depth longitudinal research.

Janet Seeley

June 2023

References

Annett, H. & Rifkin, S. B. 1995. Guidelines for rapid participatory appraisals to assess community health needs: A focus on health improvements for low-income urban and rural areas. Geneva: World Health Organization.

Chambers, R. 1994. The origins and practice of participatory rural appraisal. *World Development*, 22, 953-969.

Murray, S. A., Tapson, J., Turnbull, L., McCallum, J. & Little, A. 1994. Listening to local voices: adapting rapid appraisal to assess health and social needs in general practice. *British Medical Journal,* 308, 698-700.

Pons, V. 1993. Broad Brush Surveys of Kamwokya II. Kampala, Uganda: Makerere University and University of Hull.

Pons, V. 1996. People in place. In: Wallman, S. (ed.) *Kampala women getting by: wellbeing in the time of AIDS*. London: James Currey.

Sangaramoorthy, T. & Kroeger, K. A. 2020. *Rapid ethnographic assessments: A practical approach and toolkit for collaborative community research*, New York, Routledge.

Vindrola-Padros, C. & Johnson, G. A. 2020. Rapid techniques in qualitative research: a critical review of the literature. *Qualitative Health Research*, 30, 1596-1604.

Wallman, S. 1996. *Kampala women getting by: wellbeing in the time of AIDS*, London, James Currey.

Chapter 1: Introducing the Broad Brush Survey (BBS)

Chapter 1: Introducing the Broad Brush Survey (BBS)

This chapter covers:

- What is a BBS?
- History of BBS
- Meta-Indicator Framework
- Case-study: First impressions of a South African community
- Strengths and weaknesses of BBS
- Why conduct a BBS?

What is a Broad Brush Survey?

A Broad Brush Survey (BBS) is a rapid qualitative assessment of a designated geographical area usually referred to as 'a community'. BBS is a set of methods conducted to provide a broad brush or wide description of a designated community with the aim of facilitating how local context can more systematically and explicitly inform and influence both research and intervention.

To conduct a rapid qualitative assessment, BBS uses a mix of qualitative methods in a set sequence, designed to move from a broader to a more specific understanding of the topic being addressed. Therefore, BBS collects qualitative data that is both focused on the whole community context and starts to ask about a key research/intervention issue. Community context data are collected by using and documenting four meta-indicators: physical features, social organisation, social networks and community narratives. BBS uses this meta-indicator detail to inquire about the key research question and/or intervention issue. BBS is conducted in a limited timeframe; from five to 15 days. If other data are available on a community, BBS can be used to review and build on this existing evidence before conducting fieldwork.

BBS is designed to be conducted by social scientists. It is often the first research activity of a multi-disciplinary team and study, sometimes alongside a household census activity. It lays the ground , alongside community engagement, for community, research and intervention design adjustments

and planning, as well as provides baseline data on social context for further research. When conducted in more than one community, BBS provides data to systematically compare one community with another.

BBS outputs are initially rapidly generated as short community profiles in different forms (for example, narrative, matrix, poster), which are shared with the communities, the wider research team and other stakeholders. These outputs can have illustrations and be translated. Later analyses and outputs can be more detailed.

Hence, BBS qualitatively assesses the 'framework of possibility' (Wallman et al., 2011) for a community, using rapidly gathered data on the four meta-indicators, and applying these findings to the designated problem.

Applying BBS to TB transmission research

In a population-based study ZAMSTAR, that aimed to reduce Tuberculosis, it was important to understand local TB transmission dynamics in each of 24 communities in Zambia and South Africa (Ayles et al., 2013). In response, one aspect of a five-day BBS was to apply meta-indicator data to TB transmission dynamics by collecting data on who mixes with who and where in each community. To do this, BBS first mapped with local residents the presence and type of gathering places in the community, and asked and marked if any gathering places are considered 'TB hotspots'.

BBS then conducted a brief and systematic observation of a range of these gathering places in the community, using GIS, a TB transmission score card and field notes to note detail of location, physical structure and people in each. Following this, BBS was used to do two to three hour structured observation in different types of gathering places identified as 'TB hotspots', informally discussing TB with people in the gathering places. Focus group discussions and key-informant interviews were then used to probe further about TB transmission.

The resulting findings were included in community profile narratives and matrices, and guided intervention design (for example, where to conduct community sensitization, messaging content, at risk groups) and research enquiry (for example, TB transmission models, socio-spatial TB control) (Murray et al., 2020, Murray et al., 2019).

History of BBS

BBS was developed in the Democratic Republic of Congo in the 1950s. Rooted in the disciplines of urban sociology and social anthropology, BBS was initially developed to understand how migrants were absorbed into neighbourhoods through observation and sketching urban places (see Pons 1969, Burgess 1982).

In the 1970s, BBS was applied to address the role of ethnicity in inner city London by focusing on two contrasting inner city communities where ethnicity had a greater and lesser influence (see Wallman 1982, 1984). Additional methods were added for observations in the inner-city research, including statistical, political and historical background literature, a household survey, recording gossip and in-depth interviews. Findings contributed to information on race relations at the time in London and to urban anthropological theory.

The London inner city study developed a model that assessed how open or closed an urban community was, relative to another urban community. This had implications for how urban communities would respond to change and intervention (see Wallman 2003, Wallman et al., 2011). Focusing on the interactions between housing, work and social life within urban communities, the open:closed model of urban systems argues that when the boundaries and networks of housing, work and social life overlap with one another very tightly (those that you live with are those that you work and hang out with), this creates a more closed community that is hard to enter and intervene in. Conversely, if housing, work and social life are more loosely connected and are more diverse, there is more openness to change and it is easier to enter as an outsider or introduce an intervention. However, communities can also be chaotically open with no overlap between housing, work and social life. This chaos does not lend itself to intervention. Thus there is an open:closed spectrum where an urban community can be placed at a moment in time. Urban communities that demonstrate both social cohesion and diversity were assumed to be the most amenable to change.

In the 1990s and early 2000s, researchers in Rome, looking at problems linked to migration, and in Kampala, looking at problems linked to urban health, continued to adapt both BBS and the urban systems model. Mapping, internet searches, architectural visuals and household interviews were among the components that were added to the methods (Wallman et al. 1996, 2011).

"The indicators, combined, were intended to encompass both visible and invisible features of communities including the most visible and obvious to the least visible and indiscernible, building up layers of rapidly assessed detail on a community."

From 2004, Bond and colleagues further developed the BBS approach. Most often, this was in the context of informing the planning of public health research with communities in southern and eastern Africa – frequently in large-scale cluster-randomised control Tuberculosis / HIV trials. Here the task for the BBS approach was to provide outsiders, often clinical and epidemiological scientists, and health service programmers, with a way to understand the 'community' (i.e., shared geography of an urban system) and to do so both comprehensively and rapidly (Bond et al., 2018). In addition, BBS has now been conducted and analysed with water engineers to contextualise and address water and sanitation infrastructure challenges in two southern African cities.

The BBS field experience in Africa was combined with the European experience in a book 'The Capability of Places' (Wallman et al., 2011). To systematically document community features, key indicators were identified to be observed by social scientists by the different research studies. The indicators, combined, were intended to encompass both visible and invisible features of communities including the most visible and obvious to the least visible and indiscernible, building up layers of rapidly assessed detail on a community. It was decided that it was sensible to develop a limited set of indicators that could be more easily used and communicated. Building on the experience of the studies that used BBS, four meta-indicators were settled on: physical features, social organization, networks and community narratives. Each of these meta-indicators posed a key question about the possibility of the particular urban community to address and manage the designated problem.

Thus, BBS now has evolved from its origins to become less theoretically driven and more interdisciplinary, and has consistently proved to be useful.

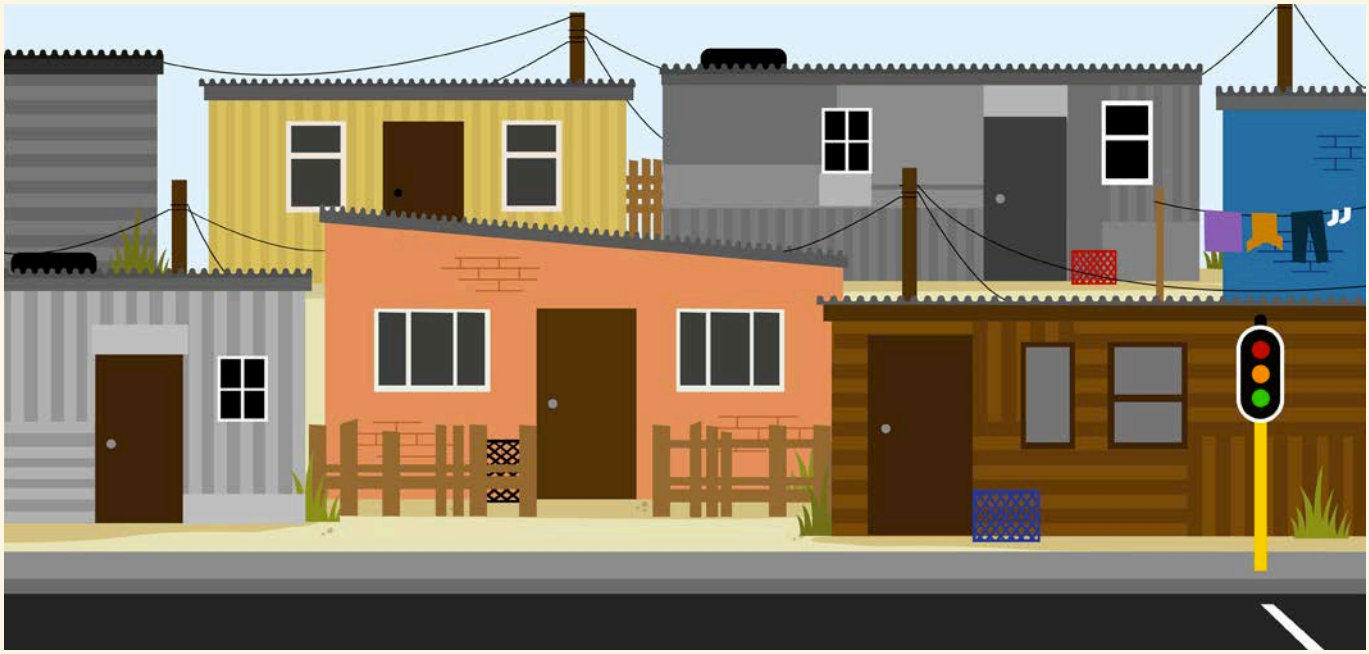
BBS still involves observation whilst also relying on talking to local residents about their community and the problem at hand. It has become more rapid in response to research needs and budgets. There is now a stronger focus on sharing and discussing BBS results with the community and a stronger link with community engagement approaches. BBS has consistently proven to be flexible enough to add methods to the approach, and to work with a wide range of disciplines and research topics. Theoretical framing however continues to underlie the BBS approach in the form of meta-indicators.

The Meta-Indicator Framework

The four meta-indicators are sequenced to reflect a researcher or practitioner moving from first impressions of a community to a more nuanced understanding of the community within a limited timeframe. Collectively, these four meta-indicators form a multi-layered description. This is illustrated below.

1. Physical Features

When first entering a community as an outsider, it is often the most visible features that stand out – the housing, the roads, transport hubs, shopping or commercial centres, recreational spaces, government buildings, other more unique infrastructure (for example, a bridge) and the topography (for example, a swamp, the sea, vegetation, sandy areas, parkland).



2. Social Organisation

Then one often starts to focus on people in that place, noticing the ethnicity, gender, dress, and activities of people who are visible outside of buildings or seem to be gathering in spaces and places (for example, people at a local health facility, people in a bar, school children and teachers at a school). There may be signs that indicate social organization (for example, signs advertising a local traditional healer or a church event).

3. Social Networks

After noticing details about people, observing interactions between people in this place quickly follows (for example, the young men playing pool joking with one another, the women at a water point discussing the cost of food items, a dispute between market vendors).

4. Community Narratives

Listening to conversations and striking up conversations, one starts to get a feel for what kind of place this is, including how residents respond to outsiders (for example, welcoming of outsiders), what options are available to residents (for example, private health care options) and what choices residents make (for example, using public mini-bus taxi to go out of the community, to vote for a particular political party).

The following visual illustrates the four meta-indicators and the over-arching questions posed by each meta-indicator when carrying out BBS in community. We have found this colour coded visual a helpful illustration for gathering and sharing BBS data in various forms.

Meta-indicators framework

What are the physical/ viable features of the general community and water and sanitation services?

e.g. Infrastructure and population, architectural housing options, terrain (roads, boundaries, open spaces)

How are people organized in this place?

Organisation of people in the place, across housing, work, mobility (access to transport, movement in/out of community), ethnicity, age, family structure, socio-economic status.

What do people say about this place?

E.g., Oral history and origin, local style (cohesion or feel of the place), transitory/ permanency, sense of belonging, commitment to the place, consistency of certain features.

How do local residents interact with each other in this place?

Links between people and groups around residency, ethnicity, neighbourhood, livelihood, politics, other interests. Characteristics of networks; extensive/ intensive, bonding/ bridging, flexible/fixed, formal/informal.

The following table details the four meta-indicators, progressing from the most visible to the least visible, and collectively conveys a layered understanding of a community. We suggest having this table as a field guide for social science researchers carrying out BBS. This table was adapted from 'The Capability of Places' (Wallman et al., 2011, pp132).

Meta indicator	Definition	Question relevant to problem management
Physical Features 	**'Material fabric of the local area'.** Visible, countable, mappable. Includes: housing types, other architectural features, employment & work options, physical boundaries, topography (bird's eye view).	• What could happen here? • What are the features of particular relevance to the problem?
Social Organisation 	**'Relation of people to place'.** The organisation of people in the place, across housing, work, mobility (access to transport, movement in/out of community). Characteristics of population diversity, age, ethnicity, family structure, socio-economic status.	• How are people organised in this place? • How are people organised in relation to the problem?
Social Networks 	**'Relation of people to people in this place'** Links between people and groups. Patterns of interaction for example ethnic/local, chosen/ascribed. Extensive/ intensive networks. Bonding/bridging social capital. Flexible/fixed network boundaries. Networks of services (formal and informal).	• What are the patterns of interaction between people within and outside of the community? • What networks are relevant and active for the problem?
Community Narratives 	**'What do people say about this place?'** Oral history (origin, style), identify with the place, commitment to the place (chosen/no choice), blaming patterns, butt of gossip.	• What kind of place is this in local narratives? • What are people's opinions about the problem?

Using the field guide helps position most of the data under each meta-indicator both generally and specifically (focusing on the problem at hand). For example, in a project about water services (the problem focus), the meta-indicator of 'narratives' will have a layer that is 'What do people say about this place?' (general), but also 'What do people say about water services in this place?'. Hence, the data on the community narrative indicator embeds the problem focus in the wider context.

The example from South Africa, from research focusing on people's perceptions of the place they lived (places with high and low HIV and TB prevalence) in order to inform the design of future interventions, conveys how data on all four meta-indicators emerges in a BBS transect walk, giving a layered understanding.

Field report of first impression of the community, Transect Walk, 8th February 2016, South Africa

This is a rural area in the southern part of the demographic surveillance area and located approximately 5 kilometres away from the local town. It is also situated adjacent to a local township and opposite a low-cost government housing community. A national highway, N2, passes along the community, which connects the community to major cities like Johannesburg, Durban, and Cape Town in South Africa. This national highway is an entry/exit point to the community. It is congested with traffic as the national highway and the bridge are under construction. A large group of construction workers (men) is working on the construction site and they reside in a camp next to the construction site. Next to the highway is a fuel station (only men are seen as petrol attendants) and some restaurants. The fuel station is busy with many vehicles and trucks stopping to fill petrol, diesel, or to buy fast food from the restaurants. There is also a small taxi rank next to the filling station (only men are seen as taxi drivers), which operates only in the morning to transport commuters to town. Next to the filling station is a big tavern, which is divided into two sections. The first section is a bar where patrons go to drink alcohol and the other section is an open area with a big braai (open-fire grill) stand where people buy, grill, and eat meat. The bar is open 24 hours a day and seven days a week. Along the road next to the tavern, there are information billboards. One of them is a big billboard by the Department of Health which advertises male circumcision and emphasizes the importance of male circumcision and health-related information. There are also handwritten notice boards, advertising local traditional healers, bricks for sale, poultry for sale, and other businesses and services offered in the community. There are so many traditional healers within the community and their homes are symbolized by white, yellow, green, and blue flying flags.

"Along the road next to the tavern, there are information billboards. One of them is a big billboard by the Department of Health which advertises male circumcision and emphasizes the importance of male circumcision and health-related information."

The area is very densely populated with houses built close to one another including lots of buildings for block tenant houses. Most of these tenant blocks are divided into small one-room flats. Each room could be occupied by one or more people. The majority of residents are migrants who are renting accommodation to get closer to work in town or for micro-entrepreneurial activities (e.g. hawkers, brick makers). Many houses are

built in cement bricks, some not plastered, some plastered but not painted, and others painted. Other houses are roofed with tiles and others with corrugated iron. There are also a few houses with thatched rondavels and very few with mud huts.

In terms of other infrastructure, the community has electricity and water (piped water inside the dwelling and piped water on community stands). Apart from the national highway, there is one main gravel road and many roads and footpaths within the community.

People met during the initial visit

This is a very busy community with many people and cars moving up and down. Mornings and late afternoons are the busiest times in the community as many people leave home and come back for work in town. Children and young people (wearing school uniforms) are walking to and from school, located in the nearby area. Other people are just moving to buy stuff from the fuel station shops and to the tavern.

During the day, people (mostly women) are seen doing household chores such as fetching water, cooking, cleaning, gardening, and doing laundry. Others are just sitting under the trees.

The community consists of a large number of young people compared to older people. Most middle-aged people (men and women) were met on their way hurrying to work or town, using the small taxi rank found in the area for transport.

One older man met walking on the street explained that there are few older men in the area. Many older men died and the households were headed by women (widows). The story of the deceased men in the community was also shared by another man who described himself as unemployed. He said that there weren't any men in the community and he was the last man who was still alive in the community. He pointed to a grave that it was containing the body of his friend who had recently died. He went on to say that all the houses in the community were occupied and headed by widows. When asked how men died in the community, he just laughed and did not want to talk about it.

"One older man met walking on the street explained that there are few older men in the area. Many older men died and the households were headed by women (widows)."

Younger women that were met at the communal water tap complained about the shortage of water supply to cater for the community and about the high rate of teenage pregnancy in the area. This was also confirmed by a man found sitting under the tree. He also stated that girls below the age of 15 years have babies. He even made an example about his niece who dropped out of school last year as she was pregnant. Two men between the age of 25-40 also complained that the research institution tested people for HIV in households and required them to go to public clinics for treatment if they have tested positive instead of delivering ARVs (HIV treatment) in households where people are tested for HIV. They were also not satisfied with the quality of service and patient care at the public clinics.

People from other African countries are found in the area. They run small businesses, and some are employed in town. Some foreign nationals were also traditional healers.

When asking community members about the availability of community health workers, most community members reported that they did not have community health workers in the community.

Initial impressions of the community and what issues have arisen that might be important:

An overall impression of the community is that many residents are migrants. Migration is facilitated by a need to seek opportunities and access to employment, entertainment, schooling, health services, and micro-entrepreneurship. There are also high mobility patterns of people moving in and out of the community.

Important issues noted were the high rate of teenage pregnancies, high mortality of older men, a proliferation of traditional healers, a large number of alcohol-serving establishments, and a lack of community health workers.

Data collection for BBS

BBS uses a range of qualitative participatory research activities to collect the data which can then be organised under each meta-indicator.

Activities include transect walks, observation sessions, focus group discussions and in-depth interviews. The sequence and detail of these activities are described in the following chapters.

The Strengths and Limitations of BBS

BBS requires certain conditions, resources and personnel. It is designed to be conducted rapidly and with a fixed sequence of activities. Although it can be adapted to fit most studies and contexts, BBS does have some limitations. The strengths and limitations of BBS are summarised in the following table.

Strengths	Limitations
Efficient and effective way of gathering rich and large amounts of data about a community in a short period of time	Bias towards respondents that are present in the community during the day (unless observation is carried out at night)
Successful in maintaining comparative work across communities and countries & communicating across disciplines. Successfully applied to a variety of urgent social and public health problems. Allows for collaboration with other research groups (e.g. demographic surveillance).	A trained social scientist is essential to closely supervise data collection and analysis, in spite of BBS's success with multi-disciplinary teams, (e.g. epidemiology, engineering). Requires an experienced team of research assistants in qualitative research methods; and ongoing capacity development for less experienced teams
Produces systematic qualitative data that still retains a wide scope, allowing for unanticipated significant information to emerge	Does not provide in-depth qualitative data that could be collected over a longer time period.

Strengths	Limitations
Captures significant variations & commonalities between sites	Does not document information about what is happening OUTSIDE the community, in other places where residents spend time.
Records a snapshot of a community at a particular time, acknowledging the history of the community through drawing on the memories of residents and other reviewed documents (for example, census data, municipal report)	Does not capture the dynamics of a community over time unless it is repeated. Across all four meta-indicators, every urban community is always changing, with features rising or falling in prominence over time.
Although there is a set sequence principle, BBS easily allows for adaptations and adding and testing methods. For example, adding in observations of particular groups, introducing a particular tool.	The BBS sequence is designed as a first step, to mostly provide broad impressions of a problem
Immersion in the community enables gathering of information about invisible features and behaviors.	It can be intensive and demanding to spend consecutive days and long hours in the community for data collection
Presence in community enhances ongoing community engagement	BBS does not replace community engagement

Why use the 'Broad Brush Surveys' (BBS) approach?

At the heart of BBS is a problem that demands attention in urban communities. This could be linked to many issues, for example, infectious diseases (HIV, TB), migration, mortality, maternal health, water and sanitation. These problems are not isolated from the day to day lives of residents but occur alongside other things happening in the community. If there is a broad group of researchers (from a range of disciplines) and practitioners who are keen to do something about the problem and who have a research question and/or an intervention at hand, BBS is an appropriate approach to kick start their efforts.

As a group, researchers want their research and the intervention to have a good uptake. They want the community to be open to research and intervention and aspire for beneficial impact and change. They need to select communities that demonstrate the potential of understanding more about the problem. They sometimes also design an intervention to make the problem reduce. They may also wish to scale up what they do across a range of communities and countries.

The BBS approach has evolved to take up this challenge of communicating effectively, practically and scientifically that local context counts for the uptake of research and intervention. For example, the following box contains the aim of BBS in four research studies conducted in sub-Saharan Africa that were addressing an urgent public health issue.

Aim of the BBS in different studies

2004, ZAMSTAR: The key objective of the BBS in ZAMSTAR is to give us shallow and wide understanding of domains of TB in the local community.

2013, PopART: The aim of the qualitative BBS is to rapidly assess the HIV prevention, treatment and care landscapes of all 21 PopART communities.

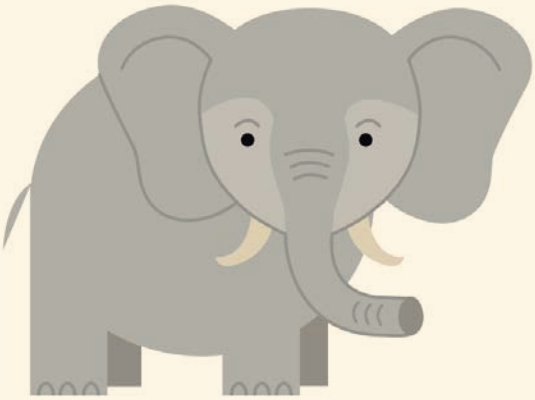
2016, AHRI: The aim of the rapid qualitative assessment is to describe the populations and places where there are high and low HIV prevalence and incidence rates, and associated co-morbidities, in order to inform the design of future interventions.

2019, RINSS: To demonstrate if a rapid assessment of an urban community, using the Broad Brush Survey approach and meta-indicators framework, is an efficient and replicable tool for optimising water and sanitation infrastructure development, both formal and informal, relative to local context with meaningful gains in service quality.

BBS has proved useful to a range of studies and interventions and has contributed to theory and methodology. The distinct components of BBS are contained in the box below; the elephant image is to prompt us to remember these!

Distinctive aspects of the BBS approach

- A community is defined as a geographically bounded place
- BBS is the first research activity to be carried out
- BBS is applied to a problem
- BBS uses the four meta-indicators framework
- BBS often involves more than one community and is comparative
- BBS is rapidly carried out (5-15 days)
- BBS uses a set sequence of qualitative research activities
- BBS focuses on the broader context and how this context influences a narrower research or intervention topic
- BBS builds a profile of a community
- BBS quickly delivers short, accessible outputs to help enable local context to guide research/intervention



References and Resources

Ayles, H., Muyoyeta, M., Du Toit, E., Schaap, A., Floyd, S., Simwinga, M., Shanaube, K., Chishinga, N., Bond, V., Dunbar, R. and De Haas, P., 2013. Effect of household and community interventions on the burden of tuberculosis in southern Africa: the ZAMSTAR community-randomised trial. *The Lancet*, 382(9899), pp.1183-1194.

Bond, V., Ngwenya, F., Murray, E., Ngwenya, N., Viljoen, L., Gumede, D., Bwalya, C., Mantantana, J., Hoddinott, G., Dodd, P.J. and Ayles, H., 2019. Value and limitations of broad brush surveys used in community-randomized trials in Southern Africa. *Qualitative health research*, 29(5), pp.700-718.

Burgess, J.A., 1982. Selling places: environmental images for the executive. *Regional Studies*, 16(1), pp.1-17.

Mayer, P., 1970. Stanleyville: An African Urban Community under Belgian Administration. By Valdo Pons. London: Oxford University Press for the International African Institute, 1969. Pp. xxiv+ 356, bibl., ill., maps. 70s. *Africa*, 40(4), pp.380-381.

Mugisha, J., Mokaya, J., Bukenya, D., Ssembajja, F., Mayambala, D., Newton, R., Matthews, P.C. and Seeley, J., 2019. A study of knowledge, experience, and beliefs about hepatitis B virus (HBV) infection in south western Uganda. *Frontiers in public health*, 7, p.304.

Murray, E.J., Dodd, P.J., Marais, B., Ayles, H., Shanaube, K., Schaap, A., White, R.G. and Bond, V., 2021. Sociological variety and the transmission efficiency of Mycobacterium tuberculosis: a secondary analysis of qualitative and quantitative data from 15 communities in Zambia. *BMJ open, 11*(12), p.e047136.

Ngwenya, N., Gumede, D., Shahmanesh, M., McGrath, N., Grant, A. and Seeley, J., 2018. Community perceptions of the socio-economic structural context influencing HIV and TB risk, prevention and treatment in a high prevalence area in the era of antiretroviral therapy. *African journal of AIDS research, 17*(1), pp.72-81.

Wallman, S. and Buchanan, I., 1982. Living in South London: Perspectives on Battersea, 1871-1981. Gower Publishing Company.

Wallman, S., 1984. Eight London Households. Taylor & Francis.

Wallman, S., 1996. Ethnicity, work and localism: Narratives of difference in London and Kampala. *Ethnic and Racial Studies*, 19(1), pp.1-28.

Wallman, S., Bond, V.V.A., Montuori, M.A., Vidali, M. and Lo Conte, R., 2011. The capability of places: methods for modelling community response to intrusion and change. Pluto.

Chapter 2: Planning for a Broad Brush Survey (BBS)

Chapter 2: Planning for a Broad Brush Survey (BBS)

This chapter covers:

- Determining the timeframe of the BBS
- The composition and roles of a BBS research team
- Planning a budget for BBS
- Ethical considerations
- Community entry and engagement
- Training the team
- The sequence of BBS research activities (including an approximate schedule)
- The material resources required to implement BBS

Determining the timeframe of BBS for your study

The timeframe of the BBS is determined by the problem, the wider study/intervention timeframe, the setting (including how many communities) and the resources at hand. As long as the distinctive aspects are retained (see previous chapter), the BBS set sequence of activities can be conducted in a minimum of five days and a maximum of 15 days.

Remember that BBS is a rapid approach and we know that we can conduct it effectively within this 5-15 day timeframe. In communities where a complete BBS has already been carried out in the recent past, a 'top-up' BBS can be conducted in two to five days to gather data on an additional area of enquiry. For example, we have done this for a new focus on children in a TB research study (Murray et al., 2020), and on young people in HIV research study (Shanaube et al.,2009).

It can be a good idea to develop a separate BBS protocol from the wider study and apply for clearance (ethics, governmental) ahead of the other study activities. In HPTN 071 PopART, for example, we managed to organise a separate funding mechanism to do BBS ahead of the main trial activities.

We have conducted BBS in as many as 24 communities for a community randomised control trial, across two countries, with a team of four social science graduates in each country and an overall lead social scientist. We had to provide community profiles of each community and workshop an open:closed typology ahead of the trial randomisation and intervention (see Sismanidis et al. 2008). Therefore we had about 12 months before the main trial to do BBS. Each graduate was allocated two to four communities each, and they conducted BBS with local fieldworkers or institutional research assistants. This meant that up to four graduates were in the field at any one time. In such circumstances, we strongly recommend giving graduates time at the institutional head office in-between communities (if they are doing BBS in more than one community, as is often the case). We have normally built in two to three weeks between communities, giving the graduates time to be debriefed, write up and prepare for the next BBS fieldwork. It also gives time for the graduates to rest and, if appropriate, get time off in lieu of weekends worked.

The focus of BBS outputs is always on the rapid analysis and outputs. Once these are delivered, the BBS data can be more finely managed and analysed, and other more qualitative in-depth or mixed methods research can follow. Note that BBS uses the meta-indicators for these two types of analysis.

"Any compromise over the sequence, the inclusion of social scientists, the principle of meta-indicators or moving to the specific without having focused on general community features would result in the approach NOT being BBS. So whilst we need to cut our cloth to fit the purse, we also need to uphold the quality and spirit of BBS and the roots of BBS in social science and urban systems theory."

Any compromise over the sequence, the inclusion of social scientists, the principle of meta-indicators or moving to the specific without having focused on general community features would result in the approach NOT being BBS. So whilst we need to cut our cloth to fit the purse, we also need to uphold the quality and spirit of BBS and the roots of BBS in social science and urban systems theory. For example, if a study ostensibly claimed to do BBS in 15 rural villages and only held group discussions and in-depth interviews (skipping the sequence, the community entry and exit, the transect walk, the structured observations, the mapping), this would not constitute the BBS approach.

In this chapter, we describe the steps to prepare for an optimal 15 days BBS and provide an overview of the accompanying sequence of research activities. Other BBS publications provide examples of more compressed timetables (see Bond et al., 2019). We also include in the appendix a standard timetable example of a five day BBS, detailing the days and the accompanying activities and tools. In some earlier BBS studies, we developed a standard operating procedure (SOP) for the BBS (see Murray et al., 2009, Murray et al., 2021, Wallman 2003). SOPs are originally a laboratory science tool for ensuring that laboratory procedures are followed like a food recipe. These SOP detailed the sequence, activity (type, participants, duration, setting) and resources (staff, materials, logistics, software). This has been useful to share with researchers who wish to carry out BBS.

Experience with the ZAMSTAR BBS SOP

"When colleagues ask me for the BBS tools, I find myself always including the ZAMSTAR SOP, as well as other tools and protocols that I think might be useful for their own BBS research. Although, at the time, we found it rather tedious having to develop a SOP for the ZAMSTAR protocol, the planning detail is incredibly comprehensive and has stood the test of time".

Virginia Bond, Zambia, 2022

We hope that this chapter will be useful for determining your own BBS design for the problem you are researching, and perhaps also intervening on. The content will help you develop a study protocol and accompanying BBS budget.

Putting together a BBS Team

Study Supervisor:

BBS is usually led by the study supervisor (a trained social scientist at Masters or PhD level). The supervisor is considered the study lead or Principal Investigator and is responsible for the overall direction and management of the project. It is helpful although not necessary if the supervisor has done or been part of a team that has done the BBS approach before.

Research coordinator: BBS is often supported by a masters level social scientist or experienced graduate who reports to the supervisor, and works full-time or a significant proportion of their time on BBS. This co-ordinator is responsible for:

- preparing field documentation
- training of staff
- setting up meetings with community stakeholders
- liaising with communities and other academic researchers
- debriefing researchers who collect data
- quality checking of data
- tracking the progress of the project
- ensuring the outputs are delivered in a timely manner

The research coordinator is also involved in data collection and fieldwork.

Graduate social scientists:

Ideally, one or two new graduate social scientists are paired up with the coordinator to conduct the fieldwork from the start up to the write up and dissemination of the outputs. Experience to date has been that training new graduates for BBS is very fruitful. It provides new graduates with methods training and experience in a supported environment, and with a broad set of skills (range of qualitative methods, data collection, data analysis, writing up, presentation, community engagement) to take forward in a research career. In past studies, we have advertised and recruited through in-country tertiary institutions and nationally, and sometimes we have trained more graduates than we needed and selected from the group trained. The fresh eyes and energy of the graduates lends the research, if well supervised, a good quality of detail in the data.

The graduates should be from outside the community so that they are objective and will be able to see things that 'insiders' may miss, or take for granted. Ideally, the graduate pair should also be a man and a woman to provide participants with a choice to consult with either one or the other, depending on their levels of comfort. Also, as part of group discussions, a man and woman allow for men or women-only focus groups. Having a mixed research team, can also be beneficial for security issues when working in potentially dangerous settings, discussing sensitive issues or doing night time activities. Another critical consideration when recruiting graduates is language, and making sure graduates are proficient in the language/s used in the communities where BBS will be carried out.

In an interdisciplinary team, one graduate could be from another discipline (for example, in a water and sanitation study, one graduate was an environmental engineer). Involving other disciplines actively in BBS fieldwork has proven valuable. However, this inter-disciplinary approach needs to include training in the principles and techniques of BBS, and any BBS team should involve at least one social science graduate and social science supervision.

Local field workers:

Recruited from the study communities, local fieldworkers are responsible for legitimising, assisting and guiding the field staff in the community and recruiting participants for group discussions and interviews. Conducting fieldwork for a research project in a community that researchers are not familiar with can be challenging. Local fieldworkers aid the community entry process and can alert researchers to sensitive places and issues. For example, local fieldworkers have warned researchers about gang boundaries or clandestine areas or activities.

The local field workers are ideally also a man and a woman who are known and trusted in the community and are literate. They are identified through community gatekeepers during community entry. They should be renumerated as appropriate according to country and institutional regulations. They usually work a full day during fieldwork, and also support community exit and feedback processes. They are not expected to conduct the research but are expected to support the research. For example, it would be appropriate to ask them to help recruit participants, using guidance, for a discussion, but it would not be appropriate to ask them to take notes during the discussion. In some BBS, local fieldworkers have signed an oath of confidentiality related to the data collected.

The graduates should spend at least half a day orientating the local fieldworkers to the BBS and the wider study/intervention. In the box below, we include some tips for identifying local fieldworkers based on experience in Zambia across many BBS.

Tips for identifying local fieldworkers

Communities always have human resources who can support data collection. The challenge is often in finding and identifying good local fieldworkers. Here are some tips assembled by researchers who have worked in many communities, using BBS.

A good fieldworker is one

- who knows the community very well; they should be able to find their way around easily and orientate the research staff to the community without any challenges.
- who is known in the community for ease of interactions with community members. This might mean the individual(s) should have previous experience in a similar role or has worked extensively in different sections of the community through various community mobilization initiatives (either health or non-health programs).

It is desirable to identify two local fieldworkers, a man and a woman, to ease interactions with men or women participating in research activities and to share tasks, i.e. when one is recruiting study participants in the community, the other can be organizing logistics for a meeting.

Local stakeholders and gate keepers can recommend potential individuals who can support fieldwork. In some instances, research staff can rely on recommendations from colleagues who have worked in the communities before.

Alternatively, and although this takes longer, advertisements for local fieldworkers can be posted in the community and interviews conducted.

In this case, research staff should:

- categorically state the skills and characteristics of the local fieldworkers they are looking for.
- be clear that the fieldworkers should not have a political affiliation or a strong religious inclination that may influence how communities perceive research activities
- interact with the recommended or short-listed fieldworkers before starting fieldwork, explain to them what is involved in conducting fieldwork and, based on the interaction, judge if the individual(s) are able and willing to perform the required tasks.
- give the candidates an opportunity to demonstrate particular skills, i.e. literacy skills, participant recruitment or community mobilization skills and ability to speak local languages.

Recruitment must be done quickly, as often there is limited time to conduct the BBS fieldwork, especially if the researchers are coming from another town – daily costs are high, including accommodation and per diem.

Costs and allowances

Once a field worker has been recruited, it is important to discuss and agree on the payment terms for the scope of work that will be done before starting fieldwork. A contract should be signed.

Need for flexibility

It is worth noting that, it is not always easy to identify local fieldworkers. For example, it may not be possible to find a man and a woman, or someone who is able to write good notes or mobilize the community as a fieldworker. In this regard, the research staff should be flexible but have a strong sense of responsibility in ensuring that the BBS activities are conducted correctly and as planned. They should provide support to the field workers where necessary.

An ideal BBS Team

Title	Key responsibilities	Essential credentials
Lead Investigator/ Study Supervisor	• Direction and management of the study	• Social Scientist • (PhD or Masters Graduate) • Understanding of local culture and customs • Previous experience with BBS helpful
Research Co-Ordinator	• Preparation for field work • Staff training and support • Debriefing of researchers who collect data • Quality checking of data • Community liaison • Reporting progress • Delivery of outputs	• Masters level or experienced graduate • Speak and understand local language • Understand customs and culture
New graduates – ideally social scientists	• Carrying out fieldwork / data collection • Write up of outputs and reports	• New graduates in research • At least one social scientist • One man, one woman • From outside community • Speak and understand local language • Understanding of local culture and customs
Local field workers	• Assisting and accompanying graduates in the community • Recruiting participants for group discussions	• Recruited from the community. • Inside knowledge of study site • Speak local language • Literate • Be trusted in the community

Planning a Budget for a BBS project

There are broadly three budget categories relevant to a BBS approach: (1) Personnel, (2) BBS project resources, and (3) materials (supplies for specific data collection and community-level activities). We suggest potential line items within these categories and approximate ratio of '% effort' for personnel and 'units' per community in which the BBS would be used, but with the firm caveat that every setting and all communities are different and therefore BBS budgeting requires careful planning. Also note that projects will likely require additional lines for the host institution to implement the project (e.g., support staff for the institution and research ethics review costs). Here we include line items relevant to the field implementation of a BBS approach.

1. Personnel

a. A senior socio-behavioural scientist, preferably with some experience implementing the BBS approach. Approximately 10% effort for a small project working across 3-4 communities, increasing to approximately 40% effort for a project working across 10-12 communities or across multiple countries.

b. At least 2x graduate socio-behavioural scientists at 100% effort per 3-4 communities, scaling in this ratio for bigger projects.

c. Potentially local field research assistants to facilitate community entry, recruitment of potential participants and similar. One per community on a daily rate appropriate to the local setting.

2. BBS project resources

a. Office to field transport / ground transport / vehicle hire for the project staff to travel to and within the project communities.

b. Laptops for project staff

c. Voice recorders and camera phone for project staff

3. Materials / supplies for BBS activities

a. Participant reimbursement (time, inconvenience, expenses)

b. Flipchart paper and markers

Ethical Considerations

Ethical considerations are not unique to BBS. Indeed, any qualitative research in and with communities must take these into account. However, because BBS is rapid and often a 'first contact' between researchers or implementers and communities, ethical considerations are always relevant to BBS and sometimes exacerbated.

BBS activities are conducted within a short, specified timeframe and this can put pressure on the research process vis-à-vis ethical observance. For example, time pressure could compromise ensuring that informed consent obtained

is truly informed and/or participants have made voluntary decisions to take part in the study without being forced, intimated, or coerced (Macrae 2007). The situation can get a little bit more complicated when assent is required to be obtained from young people under the legal age of consent (ref), and when dealing with vulnerable communities where social vices such as gender-based violence and child abuse are often committed. Below, we share some ethical issues that we have encountered while conducting BBS.

Community permission versus individual consent:

Research has historically focussed on the protection of rights and well-being of individuals taking part in the study (ref). However, the need for community consultation and permission has gained a stronger voice in the recent past, borne from the recognition that individual consent could also disadvantage individuals who are vulnerable and that gatekeepers can provide protection for individuals and groups (Taljaard,M et al. 2013). Obtaining community permission can take longer especially in circumstances where there are not many strong and organised stakeholders. However, BBS researchers should not overlook this aspect of the research as it has implications on the future relationship between researchers and the stakeholders during implementation of the main research study. Community permission and consultation during BBS sets the tone that researchers are willing to be open and accountable and helps establish the background for trusting relationships.

"...the need for community consultation and permission has gained a stronger voice in the recent past..."

Not upsetting existing stakeholder relationships:

BBS often involves mapping the presence of stakeholders relevant to the problem, and perceptions about and experiences with the relationships between them. Therefore, the BBS team may be told about tensions around certain stakeholders/services or between stakeholders. The possibility that 'territory competition' already exists between some stakeholders is high. The BBS team presence could exacerbate such relationships if the team is not discrete and truthful in dealing with each stakeholder. The BBS team needs to be mindful that the same stakeholders will be partners in the study/ intervention.

Upholding informed consent and assent ideals:

The requirement that participants should know all about the research and what is required of them before they decide to take part in the study is a basic ethical principle. Assent (agreement sought from people who cannot give legal consent such as a minor) is required when young research participants below the age of consent are required to participate. When the period for research is short, such as BBS, obtaining both consent from parents and assent from minors can be time-consuming for researchers. If not careful, researchers may comprise on other aspects of the process such as community consultation and permission to concentrate on informed consent. However, this can have disastrous consequences during study implementation. Such an approach is also oblivious to the fact that community consultation and permission influence future individual consent.

Upholding privacy and anonymity ideals:

The BBS rapid research is likely to collect sensitive data about people's experiences and perceptions. Raw data should be kept securely both in the field and in central offices – either in a locked container/drawer or in a password protected laptop. No names of participants of informants should be recorded in raw data; instead participant codes or pseudonyms (initials or other names) should be used. Names of organisations linked to sensitive information should be replaced with generic types, e.g. "an NGO", rather than "NGO X". Lead researchers should take extreme care about what to include in rapid and future analysis, sticking to themes of relevance and not including any identifying information that could have harmful consequences for communities and research staff. The BBS team may encounter first-hand information and evidence of harmful actions, for example, gender-based violence, gang activities, child trafficking and child sexual abuse. The BBS team needs to follow institutional safeguarding and ethical guidelines and, with guidance, actively link any victims to the necessary counselling and treatment services available in the community to ensure the protection of their human rights and restoration of their dignity. Lead researchers should follow up these cases. The BBS itself can relay any concerns about the study/intervention in the rapid feedback without identifying the actual informant/source to maintain confidentiality.

"Lead researchers should take extreme care about what to include in rapid and future analysis, sticking to themes of relevance and not including any identifying information that could have harmful consequences for communities and research staff."

Respect for both individuals and the community:

The principle of respect for persons entails that researchers treat individuals as autonomous and capable of making independent decisions (Emanuel 2003). However, BBS is often conducted for population-based research projects targeting entire communities or groups rather than individuals. In this case respect for community becomes as important as respect for individuals in clinical trials that randomise individuals. We have demonstrated above the importance of stakeholder engagement. In fact, respect for community is also achieved when established community structures and opinion leaders are consulted. Just as BBS researchers have the obligation to minimize risk and harm to individual participants, they should equally minimize harm to community. An entire community can be subjected to risk if say results of research (in our case the BBS) are misinterpreted (Sullivan et al. 2001). The short nature of the BBS enhances this risk and therefore researchers must be careful what results they present to the community considering that the main study will explore the findings in-depth during study implementation.

Raising expectations:

BBS always precedes a study and or a service intervention / implementation. Therefore, the BBS research team needs to be extremely careful how they present the project to avoid raising any expectations or making empty promises that may make the communities feel let down or even incite adverse responses to the forthcoming study / intervention. The BBS team need to be consistent, open and low key about the BBS research; they need to explain the purpose

of the fieldwork and institutional links and listen to any concerns in order to create trust. Findings of some studies have reviewed that trust, more than the rigorous disclosure processes researchers put in place, influences participation in research studies (Leach et al. 1999, Tindana et al., 2006).

Ethical considerations are an on-going process

Lead researchers, institutional directors and regulatory officers should support the field team closely in ethical issues through training, regular debriefing and supervision. At the end of each set of community fieldwork, ethical considerations should be discussed, reflected on and documented. Constantly conducting self-questioning and reflexivity, and considering any sensitivities related to the problem in focus, is critical and part of ethical practice. Reporting and referral mechanisms should be in place.

Note: We do not provide examples of information sheets and informed consent forms in this manual since they vary across institutions and countries. Verbal informed consent is often also required from local leaders for community level observation activities (AAA guidelines, 1998). Any compensation for participants should follow the ethical guidelines in each country. For example, participants may have to be compensated for their time in the form of refreshments or transport reimbursements.

Community Entry and Engagement

Community engagement and community based participatory research are based on the intrinsic ideal that research should involve the people who are affected by problem in developing solutions to the problem (Shalowitz et al. 2009). Therefore, community engagement should occur throughout out the life of the BBS study to allow everyone involved to participate in decision making. In larger research studies, community engagement often has a synergistic relationship with BBS, with BBS being the first to use community engagement and community engagement later using BBS findings.

Entering the community

Community engagement processes start before BBS by identifying community-based stakeholders and opinion leaders to work with. In some instances, there may be already established community representative structures such as community advisory boards (CABs) or health committees with which to work with. This first phase of community engagement is an important step to entering the community, consulting key opinion leaders, and obtaining overall community permission from the community leadership for the proposed research study. This is closely followed by BBS fieldwork. The process of BBS provides some stakeholder analysis through the first discussion with community stakeholders, the mapping and transect walks, and key-informant interviews. Community engagement will draw on this knowledge of stakeholders.

Sharing the data

The second phase of community engagement uses the data generated by the BBS to develop multiple key messages and devise community engagement approaches for communicating these messages to different stakeholders. The messages attend to the knowledge gaps, debunk the myths and misconceptions, and speak to the barriers and facilitators. The findings on stakeholders are used to facilitate collaborative activities with community interest groups. These include developing community representation structures to ensure ongoing engagement of the community and meaningful participation in research activities, and the provision of oversight and planning for end of study activities such dissemination of the study findings. This is illustrated in the following example from a HIV cluster-randomised trial in Zambia.

Community Engagement and BBS in a large community randomised trial in South Africa and Zambia

The HPTN 071 (PopART) trial was a community randomised trial that aimed to measure the impact of a universal testing and treatment (UTT) intervention on HIV incidence in 21 communities in Zambia and South Africa between 2013 and 2017 (Hayes et al., 2021).

Prior to protocol development, researchers engaged community representatives who were CAB and health committee members for previous studies conducted by Zambart (Zambia) and the Desmond Tutu TB Centre (DTTC) in South Africa. National, provincial and district health officials were also engaged in the stakeholder meetings. While all the stakeholders welcomed the research idea (UTT), community representatives were worried Treatment as Prevention (TasP) would increase sexual disinhibition particularly in young people. They also foresaw challenges in the uptake of HIV testing by men fuelled by livelihood induced migration and stigma. They suggested genuine and serious engagement of multiple stakeholders from the onset of the trial. Approaches for revamping the CABs and broadening representation of interest groups, including civil society, were also discussed. Stakeholder views were incorporated in the HPTN 071 (PopART) trial protocol and submitted to the respective country ethics committees.

The BBS was conducted following ethical approval, to rapidly gauge key features of each community, community perceptions of and experiences with HIV prevention, treatment, and care options including UTT, TasP, Medical Male Circumcision (MMC) and linkage to care. Planning for BBS and tools were informed by outputs from the initial stakeholder engagement meetings including views and concerns that were expressed in the meetings. The BBS conducted a detailed stakeholder analysis, identifying more stakeholder groups and describing their likely impact on the HPTN 071 (PopART) trial or how they would be impacted by the trial. The likely role of traditional healers/ doctors, church groups, different social networks, long-term residents was highlighted. The BBS findings also provided better insights into the concerns expressed by stakeholders earlier on. Knowledge of and awareness about TasP and UTT were very low. However, people were aware that ARVs taken by pregnant mothers prevent transmission of the HIV virus to the unborn baby- Prevention of Mother to Child Transmission (PMTCT). The findings also showed that the trial could build on the cohesion among long-term residents to sensitize

communities and warned that door-to-door sensitization would be a challenge since daily mobility was high.

The BBS findings thus guided community engagement. In Zambia, it was decided to form new CABs based on the findings that many stakeholder interests were not represented on the current CABs. In fact, all the CAB members were also members of the Health Centre Committees (HCCs), a community-based organisation, created by an Act of Parliament to coordinate health related activities. Stakeholder engagement approaches were devised to ensure that those not represented on the CAB and new ones that emerged during trial implementation were also adequately engaged. Specifically, a community partners platform (CPP) was formed to engage civil society stakeholders. In both Zambia and South, national CAB meetings were introduced for representatives from different communities to share lessons and provide study overnight. Key messages around TasP and UTT were created, and posters and other mediums / community engagement approaches for communicating the messages were developed. Strategies for reaching men were devised although these were later radically reviewed/ changed based on the first-year performance of the trial vis-a-vis men's uptake the HPTN 071 (PopART) trial intervention.

The synergy between community engagement and BBS transformed into a genuinely symbiotic relationship between community engagement and social science (qualitative) research during trial implementation. While community engagement organised for qualitative research field activities, social scientists observed and documented community engagement activities. The synergy was better demonstrated during dissemination of the trial findings. The two worked together to develop the dissemination process and material and disseminated and documented community interpretation of the trial findings (Simwinga et al., 2022). In addition, social scientists and community engagement staff shared office space to enhance better coordination and learning.

"The synergy between community engagement and BBS transformed into a genuinely symbiotic relationship between community engagement and social science (qualitative) research during trial implementation."

In smaller research studies and/or interventions, community engagement may be more low key with fewer resources. Initial contact between researchers and the community and wider governmental structures may be established through emails, phone calls and face to face meetings that allow researchers to introduce the study/intervention and seek interest and support. See the following example from a recent female schistosomiasis study in Zambia, Tanzania and Malawi that used BBS in each country to guide the development of a community education platform.

Community Engagement and BBS in a small female genital schistosomiasis (FGS) study in Malawi, Tanzania and Zambia

All countries followed a similar community engagement approach. The study was introduced to the district health authorities by the country PIs and study managers and then, once sites were selected, to the communities, using local health facilities, health committees and either traditional and/or political leadership. Informed consent processes acted as another strategy to introduce the study to community residents, both in the BBS and the intervention itself. BBS acted as an introduction since the first activity is an FGD with local health stakeholders, which provided an opportunity to describe the study and facilitate local input on FGS.

Detailed example from Tanzania:

One week before the actual BBS fieldwork, the research team, together with the District Neglected Tropical Disease coordinator and District health officer, visited all the villages where the study would take place. In each village, they met with the village chairperson, village executive officer, community health workers, and key opinion leaders who could sensitize the community to participate in the study. In addition, in each village, they introduced themselves, described in detail the project and the targeted group of people who were to be approached to participate in the study. They requested the leaders to inform community members through village meetings and gatherings about the project and to encourage them to participate in the study.

Bond, Mazigo and Kalua, FGS study, 2019-2022. Illustration by Abraham Kiss

Preparing and training the team

Once the researchers have been recruited, it is important to train the team as part of preparing for the BBS. Depending on the size and scope of the study, one or two weeks should be allocated for a participatory workshop training that enables recruited staff to learn more about the research study, be trained in the BBS approach, including the meta-indicator framework and specific methods.

This training should be participatory in nature, so that the team clearly understands the importance and effectiveness of the participatory approach, which underpins the BBS research activities. Team members should have good facilitation skills or be prepared to practice and enhance their skills during the preparation phase. Ideally the training should be face to face. During the COVID-19 pandemic, two studies trained multi-country teams remotely to carry out BBS, staggering the training over two weeks and involving some practice within COVID-19 restrictions.

Outline of training program for BBS researchers

This agenda includes the core topics that we would recommend are covered in the formative training for the BBS researchers. Of course each training will be tailored to the study focus, sites and country context. The important factors are to ensure that it is participatory in nature, that the researchers will leave with a good understanding of the BBS principles and processes, and that participants can discuss, question and practice in a safe space.

BBS training would usually be done over two weeks

BBS Formative Training

Agenda

Welcome and introductions: The opening session sets the tone of the training. Always start with a warm welcome, a creative introductions game and warm-up exercise (we often use songs in Zambia) and an overview of the training program. If you have time, include a round of hopes and fears (about the training and/ or the study) which participants discuss in pairs and then share with the group.

Overview of the study: a short presentation by the lead investigator which describes the aims and outline of the study. Encourage questions from the researchers

Overview of BBS: Ask participants what they know about BBS. Give a brief interactive overview and describe the 4 meta indicators – asking the group for examples from their own communities. E.g. What are the key physical features in the compound where you stay? What do people say about Avondale?

Entering a community (including how to introduce the study) Buzz in pairs and brainstorm What steps would you take when entering a community? Ask the group to think about who are the gatekeepers/

key stakeholders? Discuss what the community might think about researchers. Each researcher should practice how they will talk about the study to the community members (see box below)

Ethics: We recommend that this section is done by a Regulatory Trainer (someone who has been specially trained) Some studies may require researchers to have a certificate to show that they have completed the Ethics course e.g., Good Clinical Practice (GCP)

Fieldwork safety: Start with a paired buzz and brainstorm about some of the fears researchers may have around safety during the study and then use scenarios for either role-play practice or more in-depth discussion and problem-solving or prevention strategies. Agree reporting responsibilities in safety cases

Examples of safety scenarios that we have used include:

- a researcher stops someone to ask the way and a crowd begins to gather, at first curious and then someone becomes aggressive
- a community leader who is key to the study asks you(young woman) to have a drink with him after a meeting, so that he can get to know you. When you turn him down he becomes insistent
- a participant in a Focus Group Discussion arrives drunk and starts threatening you when you ask him to leave

Core facilitation skills – discuss what makes a good participatory facilitator and demonstrate (or ask participants to demonstrate) some of the core skills: asking open questions, listening, probing, rephrasing, encouraging. Include practice sessions when trying out the FGD tools, where you can give feedback to the researchers about their facilitation skills.

Getting familiar with the BBS tools and methods: Read through the tools together to ensure everyone understands how they work. Set up times for practice sessions which will give each researcher a chance to use the tools before the study. E.g. Short observation sessions or transect walks can be done at a nearby site to practice completing the checklists; two researchers can facilitate a focus group discussion with the other participants; an interview can be role-played to try out the questions. Watching others practice in the group also helps the rest of the group to become familiar with the tools. Discussing together after the activities also role models the importance of debriefing

Data management: (tailor to the study)include discussions about security, confidentiality, encryption of data. Practice naming files.

Practising how to introduce the research

The PopART study involved asking community members about their experiences of HIV and ART (anti-retroviral treatment). It can be a sensitive topic, so it was really important that the researchers could find a way of introducing the study that would

not put people off or make them feel uncomfortable. The study was also a complicated research trial design.

The group agreed the core messages that should be included.

During the preparation workshop, as a daily activity, each researcher took turns to practice this introduction. They could choose their own words, but it was important that the message was consistent. They used local language as they would be doing in the community. The other team members gave them feedback.

This practice really helped to build confidence and prepare for the first visit to the community. It also helped the whole PopART team since they also used our suggested introduction, which we shared with them.

Safety in the Field

During the BBS training for PopART (Zambia and South Africa) a session about Safety in the Field was included in the agenda, since several of the team members were new to the organisation and we wanted them to be able to talk openly about any fears they had about going into the field.

Some of their fears included :

- *Lack of security when doing night observations*
- *Fear of being robbed*
- *Fear of working alone*
- *Racial barriers*
- *Catching a communicable disease*
- *Heat (Weather)*
- *Hygiene*
- *Health concerns*
- *Hostility in the community*
- *Causing offense*
- *Suspicion about the trial*
- *Rejection*

The session also provided an opportunity to role-play some possible scenarios, and practice how to stay safe, or avoid escalating difficult situations.

This was an important part of the training because the researchers needed to feel confident as they set out to implement the BBS activities.

Working across disciplines: extra training needs

BBS is a method that can be used in interdisciplinary research, such as engineering, health and social sciences. It is therefore imperative to consider the roles and recruitment of staff who are not trained in social science methods, theory and thinking. For instance, a civil engineering graduate is trained to understand how and where to plan for roads or water infrastructure looking at the soil types, ground level and built environment. Further training would be required for them to conduct interviews and group discussions as part of the BBS approach. Ideally they would be assigned to work alongside one

of the social scientists. Even with social scientists who are new graduates, they may not have been trained in the specific research methods or participatory approaches. So they also have training needs. The following details the reflections of a social scientist on BBS training.

Reflection on lessons learned from BBS

As a new graduate social scientist with a degree in social work and a little experience with social science research (mostly theoretical), my overall experience with BBS was fruitful as well as insightful.

At university, most of the research that I was taught was qualitative with a small component of quantitative research. I had learned about phenomenological studies, grounded theory, and ethnography. I had also learned how to collect data through observations, audio recordings, field notes, interviews, focus group discussions, as well as how to analyze data using thematic analysis and statistical package for social sciences (SPSS)- a quantitative analytical software.

However, I had little practical knowledge on the different ways that research can be conducted, and how data can be collected. BBS provided me with a new learning experience about how communities can be assessed rapidly without losing important details in the process. I acquired new skills and improved the ones I already had; starting from the deskwork search done before entering both communities. This helped me improve my internet search skills by knowing exactly what type of information to pay attention to and where to find it and how to represent it.

During the 15-day BBS fieldwork, we captured specific physical features in the communities, learned about the way they were organized, the intricate networks that have been formed in the community which would otherwise be missed, and the important role narratives play in revealing what meanings people attach to their communities and how they are interpreted.

BBS also helped me learn new skills on how to build and represent findings using maps. In addition, I learned to build rapport with community residents and stakeholders through community engagement which, as I learned from BBS, influences the quality of data collected.

Bi-weekly debriefs across both countries gave me much-needed support and helped me to notice gaps in data collected, and what to focus on. It also enabled me to make comparisons among communities in both countries.

BBS is unique in that it helps in rapidly collecting in-depth data which is particularly useful when there is limited time. By organizing different components of a community into the four meta-indicators you can create both the general community profile and also highlight specific problems or challenges that might need an intervention.

The BBS approach: a sequence of research activities

In Chapter 1, we emphasised the importance of following a set sequence of activities, that move from the general, wider and broad brush understanding of the whole community to the problem specific broad brush understanding, following the layered approach of four meta-indicators (also outlined in the previous chapter).

As long as the principle of the sequence and the meta-indicator framework are

followed, activities can be added and/or adapted, and structured observations can occur from after the transect walk onwards around the other activities. The 'build the picture' days are also not compulsory – as long as the data is written up in a summary form very close to the activity. Indeed, if graduates collecting the data are away from their home town, often the 'build the picture' days are dropped to get all the activities carried out in a more compressed timeframe due to budget constraints and home responsibilities.

Structuring the Activities

Here we present a table of a 15 day BBS fieldwork as a snapshot, positioning days, activities and tools next to each other, and then give a short overview of a description of each research activity in this optimal 15 day BBS for the purpose of planning. In the following chapters, there is a detailed description of each research activity and the appendix includes examples of guides and other tools to support each research activity. There is also a five day BBS timetable in the appendix.

The tables in this chapter can be used for quick reference to plan data collection.

As much as researchers can plan and prepare prior to data collection, they are often faced with unexpected events. Make sure to build in contingency plans when plans do not go as expected. Communication with the lead researcher and the institution carrying out the research is critical to manage unexpected events.

Desk-top research is the first BBS activity

Planning schedule for BBS Fieldwork

	Activity	Type	Description	Duration
Pre-field work	Desktop Research and creating the base map	Desktop research	Learn all that you can before going into the field. Conduct internet search, use local authority reports, government data and other research study results.	Not specified. Usually a useful activity whilst waiting for clearances to be obtained.
Day 1	Community Representatives group (entry) discussion	Group discussion	Discussion with stakeholders/gatekeepers of relevance to the research topic in order to gain entry into the community and assess key issues.	1-2 hours
Days 2-3	Transect Walk	Observation and impromptu discussions	Using physical map, observation sheet and GPS tracker to walk around the community and mark and take notes of important places related to the research question. Can also include a score card to assess physical features of relevance. For example, a score card to assess risk of TB transmission, FGS transmission, water and sanitation infrastructure.	2 x half-days (ideally a morning and afternoon)
Days 5-7	Structured and Timed Observations	Observation	Observations of key places/events, carried out at different times of the day, week and also at night. Uses a structured observation activity report form & more specific observation tools for the transport depot, entry/exit points, health facility.	Between 30 minutes - 2 hours
Days 4, 8, 12, 15	Community report writing and mapping	Iterative report and map: Drafts 1-4	Times to update the community narrative report and build the draft of the community map, with updated key information based on findings. [Budgetary constraints may not allow for this process.]	4 staggered days
Days 9-11	Community group discussions Specialist group discussion (if necessary) Affected group discussion	Focus group discussions	Participatory discussions with groups representing wider community, specialists with knowledge of research area and those who are directly affected by the problem.	1-2 hours per discussion
Days 13-14	Key informant interviews	Interviews	Semi-structured interviews with persons with experience and insight into the problem.	45-60 minutes per interview
15 Mop-up' day	'Final interviews/ discussions Reflections and report writing	Variable	A chance to capture any interviewees who have been missed, or to carry out last group discussions or observations. Reflection time with the BBS team Review of draft report/ Organise data	1 day

Shared Calendar

In planning data collection, the team can create a shared working calendar in order to keep track of planned activities. This can either be a hard copy of the calendar printed and accessible, a calendar on a white board, or an electronic calendar. The purpose of the calendar is to know exactly when and where activities are planned, who will be doing the activity, and the tools needed to prepare for the activity. It can also record if an activity does not take place and needs to be rescheduled (e.g., participant unavailable for interview).

Mon	Tues	Weds	Thurs	Fri	Sat	Sun
30	31	1	2	3	4	5
Internet search of community	Gain community consent	NHC/CAB Meeting	Continue Transect Walk	Structured time obsservations of transport hubs and entry/ exit points		
		Transect Walk				
6	7	8	9	10	11	12
Structured time observatioins of health facility	Structured time observations of market	Group discussions with older men and women	Group discussions with young men and women	Group discussion with community leaders		
13	14	15	16	17	18	19
Group discussion with stakeholders	Group discussion with girls	Group discussion with boys	Speciaslist group discussion			
Key informant interview with alternative care provider	Key informant interview with person living with HIV	Key informant interview with person with TB				

Example of shared calendar

What material resources do you need for BBS?

Equipment and stationery

Researchers should ensure that they have the right equipment and tools in place prior to data collection. This includes stationery, recording devices, printed consent forms, and confirmed transport, if needed. A checklist document is a useful way to ensure that the team is prepared. A laptop is also essential for writing up in the field, including evenings and weekends during fieldwork. Often it is necessary to have petty cash and accommodation and per-diems, as appropriate, in place.

We have found it helpful to purchase a trunk with a padlock and pack all the material resources into the trunk. Even if the fieldwork is within the same town as the host institution, this has proven useful for preparation.

ZAMSTAR BBS Material Resources

- Two ergonomic field bags for RAs
- Study Introductory Letters & Clearance Approvals for each RA and LFW
- Study informative leaflets for enquiring community members
- Maps of area - 2 large copies (preferably A1) and 6 smaller (e.g. A4) copies
- One ream of flipchart paper per site
- Marker pens of assorted colours
- Poster Roll to store flipchart paper
- Drinks and snacks
- Two hand-held GPS receivers (entry level model with Waypoint, Track Log and Time functions) and spare batteries (or recharger for rechargeable batteries)
- Cameras
- Plenty A4 blank paper (for daily activity charts and sketching transect walks)
- Lap-top computer for data entry
- Notebooks for field notes
- Clipboards
- Full set of information sheets, consent forms and tools
- Pens
- Data capture sheets and storage envelopes
- Petty cash, wallet, receipt book

Note: Items over-budgeted to allow for contingency and for possibility of buying soft drinks for other locals as a gesture of goodwill in the field. One graduate to hold petty cash and to account for it on return with receipts.

- Local field worker daily wages
- Drinks and snacks for opening meeting
- Refreshments for Daily time chart participants
- Hairdo at hair salon (observation session)
- Soft drinks for bar observations
- Communication in field – photocopying, phone

Trunk with padlock for transport and storage of all items

References and Resources

Bond, V., Nomsenge, S., Mwamba, M., Ziba, D., Birch, A., Mubekapi-Musadaidzwa, C., Vanqa, N., Viljoen, L., Pliakas, T., Ayles, H. and Hargreaves, J., 2019. "Being seen" at the clinic: Zambian and South African health worker reflections on the relationship between health facility spatial organisation and items and HIV stigma in 21 health facilities, the HPTN 071 (PopART) study. *Health & place*, 55, pp.87-99.

Cayouette, F., O'Hearn, K., Gertsman, S. and Menon, K., 2022. Operationalization of assent for research participation in pre-adolescent children: a scoping review. *BMC Medical Ethics, 23*(1), p.106.

Chambers, R., 2002. *Participatory workshops: a sourcebook of 21 sets of ideas and activities*. Earthscan.

Dickert, N. and Sugarman, J., 2005. Ethical goals of community consultation in research. *American journal of public health*, 95(7), pp.1123-1127.

Emanuel, E.J., 2003. Ethical and regulatory aspects of clinical research: Readings and commentary.

Leach, M., Mearns, R. and Scoones, I., 1999. Environmental entitlements: dynamics and institutions in community-based natural resource management. *World development*, 27(2), pp.225-247.

Macrae, D.J., 2007. The Council for International Organizations and Medical Sciences (CIOMS) guidelines on ethics of clinical trials. P*roceedings of the American thoracic society*, 4(2), pp.176-179.

Mazigo, H.D., Samson, A., Lambert, V.J., Kosia, A.L., Ngoma, D.D., Murphy, R. and Matungwa, D.J., 2023. Correction:"We know about schistosomiasis but we know nothing about FGS": A qualitative assessment of knowledge gaps about female genital schistosomiasis among communities living in Schistosoma haematobium endemic districts of Zanzibar and Northwestern Tanzania. *PLOS Neglected Tropical Diseases*, 17(1), p.e0011099.

Paediatrics, R.C.O. and Committee, C.H.E.A., 2000. Guidelines for the ethical conduct of medical research involving children. *Archives of disease in childhood, 82*(2), pp.177-182.

Murray, E.J., Dodd, P.J., Marais, B., Ayles, H., Shanaube, K., Schaap, A., White, R.G. and Bond, V., 2021. Sociological variety and the transmission efficiency of Mycobacterium tuberculosis: a secondary analysis of qualitative and quantitative data from 15 communities in Zambia. *BMJ open, 11*(12), p.e047136.

Ngwenya, N., Gumede, D., Shahmanesh, M., McGrath, N., Grant, A. and Seeley, J., 2018. Community perceptions of the socio-economic structural context influencing HIV and TB risk, prevention and treatment in a high prevalence area in the era of antiretroviral therapy. *African journal of AIDS research, 17*(1), pp.72-81.

Shalowitz, M.U., Isacco, A., Barquin, N., Clark-Kauffman, E., Delger, P., Nelson, D., Quinn, A. and Wagenaar, K.A., 2009. Community-based participatory research: a review of the literature with strategies for community engagement. *Journal of Developmental & Behavioral Pediatrics, 30*(4), pp.350-361.

Shanaube, K., Sismanidis, C., Ayles, H., Beyers, N., Schaap, A., Lawrence, K.A., Barker, A. and Godfrey-Faussett, P., 2009. Annual risk of tuberculous infection using different methods in communities with a high prevalence of TB and HIV in Zambia and South Africa. *PloS one, 4*(11), p.e7749.

Simwinga, M., Ndubani, R., Schaap, A., Ziba, D., Bwalya, C., Belemu, S., Ngwenya, F., Bwalya, J., Shanaube, K., Hoddinott, G. and White, R., 2022. Disseminating complex primary outcome results from a community-randomised trial to Zambian communities: lessons learned using a community dialogue approach in the HPTN 071 (PopART) trial. *The Lancet HIV.*

Sismanidis, C., Moulton, L.H., Ayles, H., Fielding, K., Schaap, A., Beyers, N., Bond, G., Godfrey-Faussett, P. and Hayes, R., 2008. Restricted randomization of ZAMSTAR: a 2× 2 factorial cluster randomized trial. *Clinical trials*, 5(4), pp.316-327.

Sullivan, M., Kone, A., Senturia, K.D., Chrisman, N.J., Ciske, S.J. and Krieger, J.W., 2001. Researcher and researched-community perspectives: Toward bridging the gap. *Health Education & Behavior, 28*(2), pp.130-149.

Taljaard, M., Weijer, C., Grimshaw, J.M. and Eccles, M.P., 2013. The Ottawa Statement on the ethical design and conduct of cluster randomised trials: precis for researchers and research ethics committees. *Bmj, 346*.

Tindana, P.O., Kass, N. and Akweongo, P., 2006. The informed consent process in a rural African Setting:: A case study of the Kassena-Nankana District of Northern Ghana. *Irb, 28*(3), p.1.

Wallman, S. ed., 2003. *Contemporary futures: perspectives from social anthropology* (Vol. 30). Routledge.

Chapter 3: Implementing the Broad Brush Survey – Data collection

Chapter 3: Implementing the Broad Brush Survey – Data collection

This chapter covers:

- Flexibility of the BBS approach
- Building a community profile report during data collection
- Set sequence of data collection activities

Introduction

As introduced in Chapter 1, the four meta-indicators (physical features, social organisation, social networks and community narratives) are central to the BBS approach. All research activities are therefore designed to assist the researcher to collect data on these meta-indicators, with the key research/intervention topic in mind. The BBS then allows us to apply this understanding of local context to the research/intervention issue. In this chapter, we describe the research activities and tools designed for the data collection process.

Flexibility of BBS approach

Researchers may decide to adapt data collection to: (1) prioritise certain activities, (2) combine activities, (3) compress activities into a shorter timeframe, or even (4) consider later adding "top-up" or repeat activities where additional research questions, new studies, and interests emerge. In addition, participatory techniques, although already part of the BBS approach, could be added. It should be noted that, when activities are prioritised or combined, the cost could include losing out on some of the details or broader insights into the place. Considerations in selecting activities include available resources (trained staff and research budget) as well as projected timeframe (including time for finalising reports). The BBS approach can therefore be as short as two days, if only "top-up" activities are conducted, or five to 15 days if all activities are completed. However, the sequence of activities remains important, as explained in Chapter 1. This is because the sequence is designed to first

establish the broad-brush (wider) contextual features of the community, and secondly to start linking these features to the specific research/intervention topic. When researchers veer away from core BBS activities described above, it comes at a cost – data quality, depth and breadth of understanding a place, details and nuances, or thoroughness in descriptions.

Some activities are better suited towards informing certain elements of the meta-indicator framework; for instance, the observational transect walk through the community is key to determining the physical features of a place and the group discussions convey social organisation of relevance to the research topic. However, and importantly, the activities are not designed for a single purpose and should be used to inform all four meta-indicators. Thus, the observational transect walk may focus on physical features but will also portray social organisation, social networks and community narratives gleaned as the researcher/s observe interactions between people and place, people and people. Likewise, community narratives may emerge through informal conversations in the transect walk.

"...importantly, the activities are not designed for a single purpose and should be used to inform all four meta-indicators"

The data collection research activities in this chapter belong to the BBS core set sequence. These, underpinned by the meta-indicators, constitute BBS. Other activities have been and can be successfully added in, and each tool to support each data collection activity should be adjusted to the research/intervention topic.

Building a community profile report during data collection

BBS commits to providing rapid outputs, soon after fieldwork is completed and in a form that is accessible to a wide audience. As outlined in Chapter 2, following any possible desktop research on the community that provides some baseline information, these research activities are implemented over a period of approximately 15 days in the selected community/context. The research activities include structured observational activities, and discussions and interviews with a range of participants. Throughout the process, we have learnt that it is better if researchers actively write and refine research reports as they collect data.

Multiple data collection and repeated report writing allocated time are planned and conducted in the fieldwork sequence to build a comprehensive profile of the community, using the meta-indicator framework. This is an iterative process, meaning the researchers are moving back and forth between the data they are collecting and the report, and in the process they are discussing and reflecting on their findings and revising the report content.

All data collection in BBS is directed toward producing an understanding of the community across the four meta-indicators. An important part of this process involves the research team regularly reflecting on what they are learning about the place in terms of physical features, social organisation, social networks, and community narratives. The meta-indicator field guide in Chapter 1 is a very useful tool for researchers to have at hand as they go into the field.

In conjunction with the reflection, researchers need to be iteratively updating field notes and a report (see Chapter 1 that describes the community in terms of these meta-indicators) and a map of the community. Different templates

assist and guide fieldnote and report/map profile processes, and examples are included in the appendix. For field notes, there are activity report form templates for different observations (e.g. transect walk), observation checklists for some observations (e.g. health facility), and both focus group discussions and key informant-interviews are initially written up as summaries (and only later, post BBS report, transcribed). For the report, there is a template structured around the meta-indicators, with specific probes under each meta-indicator that links the context to the research/intervention topic. For the map, there are stepped instructions about how to gradually build the map in the appendix.

In relation to the iterative composition of the community profile report, we illustrate this in more detail below, drawing on building a community profile in the water and sanitation study to illustrate some early report content during fieldwork. Once again, we urge any researchers to lean on the meta-indicator field guide closely to direct their observations and writing up.

Physical features

A *general* description of the visible, infrastructural features of community, including the boundaries and terrain, entry and exit points, the main roads, the types of housing, the amenities (schools, hospitals, markets, etc.), architectural features, employment and work features, topography.

This section can also contain a description of the physical features *specifically* related to the research question.

General: Physical Boundaries and Terrain

[part of Physical Features, RINSS Study early report]

Neighbourhoods within the community, entry/exit points, boundary features (what lies on the boundaries), roads/paths.

The community of K is one of the thirty-three peri-urban communities in Lusaka, located south of the city. It is in ward 9 of KB constituency with neighboring communities such as C and JH on the west, L to the south, KS and LS to the north and CH to the east. Within the ward are four neighborhoods including LS, G, L, and J compound. The catchment area of this study focused on LS/L extension and J compound. The boundary landmarks are the railway and EL road to the West, the Substation and shaft 5 to the South, and S lodge to the North. From EL road the community has four entry/exit points at D, L turnoff, GL and X sub-station. From the Northern part, the community has one entry/exit through N road popularly known as X road while on the east it has three major entry/exit points. There is only one tarred road that passes through J compound from EL road to the roundabout market and goes all the way to hospital road called CF road. It is this same road that serves as a distinct boundary on the north, separating LS from KS and LS. The J part of the community where the boundary with KS lies is not distinct due to unplanned settlements on the northern part. On the LS/L extension part, the topography has a lot of rock outcrops with much of the land still being used as farm land or subdivided into residential plots.

Specific: Physical Features and Water and Sanitation Services [short extract]

One quarter of the community is serviced by XX (mostly the central part of the ward) while the remaining three-quarters of the population depend on boreholes for drinking water. The water infrastructure includes a suspended water tank which was installed and managed by the utility company. Sanitation services are not provided by the utility and hence people's use of pit latrines, septic tanks and soak ways. Some households have individual standpipes while others buy water from the private boreholes. At the Health post, there are toilets for both patients and the staff that work there, these are free and are cleaned by those responsible for housekeeping at the facility. The patients' toilets are not locked and can be easily accessed by anyone who comes to the clinic. Both rooms are tiled with private water closet toilets with running water and a cistern in place. There is a small ventilation window on the upper part of the wall with male and female written on the doors. The staff toilet is located at the far end of the corridor and is always locked. It is a private wet closet with a functional cistern and a hand basin which is not functional. This toilet is clean and well maintained with old broken tiles, a window for ventilation and tissue on top of the cistern lid. It is accessed by both male and female staff at the facility and outside the door to the toilet are two drums filled with water.

Social Organisation

A *general* description of how the community is organized socially, with the focus on the relations between people and the community. This includes the organisation of the population across housing and work, access to transport and local services, and population movement in and out. Social organisation also includes the characteristics of people who live in the community (diversity, ethnicity, age, socio-economic status, family structure).

Researchers should include a description of social organisation *specifically* related to the research question. For instance, in the RINSS project, a description of the social organisation in relation to water, sanitation and hygiene (WASH); who uses which water and sanitation services, and how are people's movements are linked to water and sanitation.

General: Access to Transport

[part of Physical Features, RINSS Study early report]

Residents in K ward 9 have access to different forms of transport such as private vehicles, public buses, bicycles and walking. Within the community, most residents move on foot and use bicycles to get to more distant places. Residents going to and from different communities and places mostly use public transport especially in J compound. Most local residents commute on minibuses and on average spend K5 to K7 per trip. The buses coming from town pass through J to drop off commuters and collect others going to surrounding neighborhoods including X Hospital, C, JH, KS and L. These buses usually start operating at around 06.00hrs to about 18hrs. Additionally, local residents have access to Taxis from the different taxi points including at L turn-off, the round-about and along CK road opposite XX church Hall.

Specific: Water infrastructure networks

There is also a network based on the sharing of drums used for collecting water. This is because, some community residents cannot afford to buy their own drums and have to borrow from those that do. Some residents are charged to use the drums while other are not depending on the type of relationship they share with one another. Such bonds are primarily tailored around familiarity and trust for one another. Moreover, other local resident's especially young adolescents and women have created connections through pushing of drums for community members. According to participants in a focus group discussion, adolescent girls and boys are usually the ones who push the drums of water, some with assistance from their friends and share the money among themselves.

Community Narratives

A *general* description of what people say about the place. We have found asking local residents 'What kind of place is this?' is a good approach to asking about community narratives. These are stories about the moral community, oral history, myths of origin, local style, commitment to the place and identification with being local. Even such details as who is the butt of gossip is, and who gets blamed for bad luck and misfortune can form part of the narratives.

Also, include a description of narratives *specifically* related to the research question, e.g, the history of X service delivery and who is to blame for problems with the services.

General: Community Narratives

[part of Physical Features, RINSS Study early report]

The name 'K' came after the construction of K Primary School which means 'You see'. The participant suggested that the school might have gotten that name because the residents were trying to tell people to see what development had come to their community. While another local resident said that, when a train going to the Southern part of Zambia stopped working near the farm, many of the passengers stayed in the area while waiting for the train to be fixed and eventually started building their lives there. They would then say to the outsiders that, 'K' meaning, 'Look what we have done' and hence the area become known by that name.

Specific: Sanitation narratives

According to a participant, "Toilet options depend on what someone can afford. Others have flushing toilets, others have VIP, and others have the traditional toilets. It all depends on what is available for the person". *There is one public toilet near the market that local residents use. Many residents especially those who work from the market would rather walk to a friend's house to use their toilet than use this facility because described as expensive and smelly as it is also used by a lot especially those from bars.*

Set Sequence of data collection activities

In terms of the BBS set sequence, the first step is the pre-fieldwork desktop research to create a base map of and to collect any baseline data on the community. This can usefully be an activity for researchers to conduct whilst waiting for any ethical, government or community clearances. Further, this desktop research can sometimes be used to select specific communities, guided by study selection criteria. Community consent and entry precedes fieldwork, as discussed in the previous chapter.

BBS fieldwork itself will then start with discussion with community leadership of relevance to the research topic (Day 1) who help the researchers set out their first 'sweep' of the community by mapping the "hot spot" places to visit in an initial observational transect walk (Days 2 to 3). The subsequent activities build on this opening discussion with local residents and the transect walk, by first observing places of relevance within the community (Days 5 – 7) and then discussing the research topic in more depth with community groups (Days 9 – 11), as well as specialist group/s and affected group/s if appropriate, and individual key informant residents/experts (Days 13 – 14).

"BBS fieldwork itself will then start with discussion with community leadership of relevance to the research topic, who help the researchers set out their first 'sweep' of the community by mapping the "hot spot" places to visit in an initial observational transect walk."

Generic tools for the initial community representative group discussion and all the observation activities are in the appendix. We have not provided other group discussion and key-informant guides since these tend to vary more according to the research topic, but in this chapter we include examples of what topics and participatory approaches made be used in these discussions and interviews.

Note that in the sequence we have built in days for writing up, building the community profile report and the map. However, if this is not possible due to budget constraints, particularly if communities are located away from the research institutional head office, these days can be dropped. In these circumstances, researchers often write up when they can during the day and in the evening.

If BBS has to be conducted in 5 days, the set sequence flow should be retained and we recommend reducing or excluding community group discussions and key informant interviews over observations. Also, as long as the sequence is observed in principle, it may be necessary to do structured observations before and after the group discussions due to time issues.

Researchers conducting the full scope of activities can anticipate completing approximately 3 – 5 group discussions, 8-12 sets of structured observations, including an observational transect walk, and 2 – 5 key informant interviews. A key step during data collection is the continuous updating of the field report and community map. This is not a separate activity but is incorporated into the data collection process.

Pre-Fieldwork: Desktop Research and creating the base map

Aims:

- To gain a thorough understanding of some of the key characteristics of the community before fieldwork commences.
- To enable researchers to decide on appropriate research community sites; while some studies might have communities pre-selected for research, other projects will require researchers to find out more before community sites are chosen.

Overview

An initial enquiry into communities, including key characteristics (e.g. land size, population size) and prior to practical engagement with the community. It is important to note that in different countries, different resources will be available about the community level. For instance, the availability of academic articles, government/NGO reports, news articles, census data, and maps will vary between contexts (country to country or community to community).

Description:

Information is gathered about the community site, using the internet, previous research study results, government reports, local authority and NGO information and so on. A report is compiled about what is already known about the community.

This report can include the base-level information: the location, size (ground area), boundaries (official and unofficial), the population and key demographics, built and natural environment, resources, systems and politics, and the relevant organisations and stakeholders.

In addition, a base map can be created using programmes such as Microsoft PowerPoint indicating the community / study area boundary, different neighbourhoods, adjacent communities, main roads, and water landmarks.

Research tool:

Base-level information guide, base-level map guide.

Data outputs:

A report of the base-level information in a word document; an excel spreadsheet containing a repository of contact details of all relevant organisations and stakeholders; and a base-map.

Day 1: Community representatives group discussion

This discussion is the first step for fieldwork in the community and for getting a sense of the place and the key issues from the community perspective.

Aims:

- To explore the perceptions and experiences of key community groups with regards to the research question being investigated.
- To use the community map as a tool to plan the transect walk (described below) and discuss places of particular relevance to the research topic. Sometimes these places are referred to as "hot spots", but this depends on the topic at hand.
- To elicit suggestions about where community observations should be conducted.
- To ask for recommendations about key informants that should be interviewed.

Number of participants:

8 - 12.

Duration:

60 - 120 minutes.

Activity description:

This is a semi-structured interactive group discussion with a key group representing the interests of the community where the research is being conducted. The discussion can be conducted with existing community advisory boards (CABs), community health committees, neighbourhood committees, community police forums, or other groups, depending on the context and research aim.

Research tool:

Community Representative Discussion guide using participatory activities

Activity structure (example)

1. **Icebreaker and introductions**
2. **What kind of place is this?:** Interactive activity where participants are asked to draw pictures/ write words to describe their community followed by discussion.
3. **Mapping the place:** Activity where participants are asked to either co-create or consider a pre-printed map of the area and to indicate key places related to the research. This is followed by probing questions and discussion. Having a pre-printed map is desirable, since drawing a map take times.
4. **Wealth, poverty and being affected:** Activity where participants select pre-printed character cards and are asked to create narratives typical of the community and how these characters might be affected by the focus of the research question (for example, for water and sanitation where the 'characters' would access water services or the challenges they experience).

Form of data recording:

Photos of activities, field notes, voice recording.

Data outputs:

A map of the local community marked up with the route/s for the transect walk and places of particular interest to the research topic, summary of the discussion and activities to feed into the community profile, scripts/transcripts for finer analysis.

Examples of character cards

Days 2-3: Transect walk

Aim:

To create a detailed description of the key physical features of a community and make observational notes of the movement of people, industries, economic activities, and a description of the demographic profile of the community. During the transect walk, researchers identify places where further observations can be conducted. GIS can be used to document location of key places of relevance, and a structured observation tool is used to document other details briefly (e.g. structure, population mix).

Timeframe:

Two half days (a morning and an afternoon)

Duration:

Total of approximately 8-10 hours if conducted on foot. Shorter if security or practical issues dictate doing this by car.

Activity description:

A structured observational walk starting at a key central point. Researchers then walk in a 'spiral', outwards, or transect through the hub of the community, mapping key items/infrastructure, writing down brief field notes from observations in the observation sheet, and impromptu conversations and taking photos as they go. If feasible, researchers can use GPS devices to pin relevant hotspots and to create a 'breadcrumb trail' of the transect walk. Researchers should ideally work in pairs, one man and one woman, if possible, for gender-balanced observations. The intention is to observe as much of the community as possible. To note, while it is preferable to do the activity on foot, at times researchers can do a transect drive, depending on safety, resources, and other constraints (see below).

Research tool:

Transect walk activity report form and observation checklist, camera, notebook for additional field notes. Optional: GPS device, voice recorder.

Form of data recording:

Photos, field notes. Alternative option: Voice recording dictating observations; GPS coordinates with notes on key points.

Data outputs:

Detailed notes on places of relevance, 'breadcrumb trail', first impressions of the community for report writing, an updated community map, photos. Optional: GPS readings.

Day 4: Community profile report writing and mapping: Draft 1

This is time set aside to write up notes from the community entry discussion and the transect walk.

Aim

The aim is to build on the base report to create the first iteration of the community profile in the form of a narrative report. The narrative report should be updated as data is collected.

Description

Researchers start with a blank community profile template to note down observations during data collection and reflect on findings along the four meta-indicators. The team should note down general observations and findings and then proceed to note findings specifically related to the research question.

What to include in Draft 1 of the narrative report?

The narrative report is used to create the community profile, using the four meta-indicators as a guideline. Researchers can include photos, quotations, and descriptions of observations and discussions to help the report come to life. Researchers also include a summary of the data collected. This should be updated as data collection continues.

See Community Profile Report Template in the appendix.

The community base map can also be updated if time.

Photo of water kiosk in Lusaka community from Transect Walk, RINSS study

Why would someone do a transect drive?

During the RINSS study, instead of walking, we decided to do a transect drive through the communities in Cape Town. The drive was preferred because of security issues and the size of the communities.

We worked in two geo-political wards (places) which had 10-20 neighbourhoods each. The transect drive involved driving by car through each neighbourhood and stopping at certain points to spend time noting down important features, streets, people, and taking pictures and GPS coordinates of features.

It took approximately one working day to drive through all neighbourhoods of a ward. During the drive, we noted the different types of housing, how many people are present during the day, what they were doing and who they are (age, gender). We also noted all the open spaces such as parks, rivers, and wetlands. We observed the quality of the roads, checked the stormwater drains and compared these across the neighbourhoods. Due to the size of the wards, it was challenging to reach and observe all the neighbourhoods equally during the drive. Even though we could get from neighbourhood to neighbourhood quickly, we were limited in terms of the amount of time we spent at a place. Compared to a transect walk, the finer details were lost during the drive, such as engaging with residents who are present, or missing certain places due to the speed of travel.

RINSS fieldwork, 2021

Days 5 - 7: Structured and timed observations

Observations are scheduled for different times of the day to ensure that researchers have a broad understanding of the community. These observations could include spending time at health facilities, transport points where people move in and out of communities, in formal and informal markets, at barbers or hair salons, religious gathering places, communal watering points, night clubs, and sports fields.

Aim:

To note details of key places in the community, both in the general sense but also places specifically related to the research question.

Timeframe:

Different times of the day adjusted to what is appropriate (for example, early morning and evening for transport depots and entry/exit points). We strongly recommend also conducting a night and weekend observation, to get a feel of the community at these times.

Duration:

Between 30 minutes - 2 hours

Activity description:

Observations are conducted at places identified in the discussion with the community representatives group and during the transect walk. These observations are conducted at key places and relevant times in the community, including key amenities (e.g. health facility) as well as places and perhaps "hotspots" specifically related to the research question. Researchers should always ensure that they have the relevant permissions and that they do observations in a way that is safe. Observation is usually conducted in teams, preferably a man and a woman to ensure a gender-diverse perspective.

Photos can be taken during observations (with permission).

Research tools:

There are general and specific tools for observation. An activity report form for structured observation can be easily adapted to the research question, the place being observed and the time being observed. For the health facility, there is a health facility report form and a health facility check list to rapidly record health facility use by clients at a general (e.g. out-patient department) clinic. For the transport depot and entry/exit points, there is a rapid check list of the demographics of people coming in and out of the community. There is a weekend/night observation activity report form. Depending on the research/intervention topic, this is often where additional tools are added e.g. a TB transmission score card, a water and sanitation scorecard.

Proposed Observation Activity details:

Notes on people observed (demographics including age and gender, movement, dress, atmosphere, what people are doing, number of people, interactions, conversations, etc.). Notes on the physical features (where is this place, what does it look like, features, smells, state e.g., well-maintained, dilapidated, etc.)

Form of data recording:

Photos, field notes, completed observation sheets, or voice recording of observations.

Data Outputs:

Detailed notes on places of relevance, completed observations sheets, descriptions of the community for report writing, photos. NB. Field notes should be written up immediately after the observation session as much as possible.

Day 8: Community report writing and mapping: Draft 2

Researchers will reflect on data collection and add to Draft 2 of the community profile report and community map, with updated key findings from the observational activities carried out on Days 5-6.

The aim is to create the second iteration of the community profile report, as data is collected. If there is time, the map can also be updated. However, priority should be given to writing the report.

Day 9 - 11: Community group discussions

These group discussions are held with different community groups and are structured around participatory activities.

Sometimes there are challenges when recruiting participants for group discussions and researchers should be responsive to communities and conditions in the field. For example, it has proven hard to hold group discussions more formally in South Africa than in Zambia.

Aim:

To find out about community perceptions of the research questions/ issue.

Research Tool:

A semi-structured community group discussion guide is used to lead discussions..

Number of participants:

8 - 15

Participant type: Group discussions that can be conducted (depending on the research question) include: discussions with younger men/women (18 – 35); older men/women (35+); mixed community groups if necessary/appropriate.

Duration:

Approximately 2 hours

Activity description:

The following are suggested activities that can be included in the group discussion, but should be adapted according to the research question:

Icebreaker and introductions

1. **What kind of place is this?:** Interactive activity where participants are asked to draw pictures/ write words to describe their community followed by discussion.
2. **Wealth, poverty and risk:** Activity where participants are asked to select printed character cards representing different types of people/characters from their community and to write the story of the participants – who they are, what they do, and how they relate to the social issue being investigated (for instance, how are they at risk of contracting HIV? or, how do they access water?). This is followed by probing questions and discussion.
3. **Wealth, poverty and being affected:** Activity where participants select the character cards and are asked to create narratives typical of the community and how these characters might be affected by the focus of the research question (for example, for water and sanitation where the 'characters' would access water services or the challenges they experience).
4. **Pile-Sorting:** Community Participatory Discussion Activity where participants write out ideas about 'What xx in this community is' (for example, HIV prevention, water and sanitation, health care, other issue being investigated). Each idea is written on a separate card. Ideas are brainstormed by the group and then 'ranked' in terms of relevance/ importance in the community. Probing questions are also included.
5. **Institutional mapping:** Participants discuss the different service providers who offer services related to the research question in the community. Service providers are listed on a flipchart and community members are asked about the types of services, their effectiveness, and the groups they offer services to.

Form of data recording:

Photos of activities, field notes, flipcharts and cards, voice recording.

Data outputs:

A summary of the discussion and activities to feed into the community profile, scripts/transcripts for finer analysis, and a list of relevant stakeholders.

Day 9 - 11: Specialist group discussion

This group discussion can be held with specialists in the research topic being investigated and structured around interactive activities.

Aim:.

The aim is to explore the groups' perceptions of the research focus area in their community. A semi-structured discussion guide is used to lead discussions. Group discussions can be conducted (depending on the research question) with health workers, activists, community leaders, government officials, NGO representatives, other persons who could be considered 'experts' on a given research area.

Number of participants:

8 - 15 participants

Duration:

60 - 120 minutes

Research Tool:

Specialist group discussion guide

Activity description: Researchers should arrange with participants in advance of the scheduled discussion, and ask them who else should be invited to participate in the 'specialist' discussion ('snowball sampling'). During the group discussion, researchers should use semi-structured discussion guides and complete field notes.

The following are suggested activities that can be included in the group discussion, but should be adapted according to the research question:

1. **Icebreaker and introductions.**
2. **What kind of place is this?:** Interactive activity where participants are asked to draw pictures/ write words to describe their community followed by discussion.
3. **Concept mapping:** A statement is read aloud to participants, and they are asked to write down, or draw a picture of each idea about that statement that comes to mind. The statement is usually framed as _____ (name of site) and _____ (research focus). This is followed by a discussion.
4. **Pile-Sorting:** Community Participatory Discussion Activity where participants write out ideas about 'what xx in this community is' (for example, HIV prevention, water and sanitation, health care, other issue being investigated), each idea written on a separate card. Ideas are brainstormed by the group and then 'ranked' in terms of relevance/ importance in the community. Probing questions are also included.

Form of data recording:

Photos of activities, field notes, voice recording.

Data outputs:

A summary of the discussion and activities to feed into the community profile, scripts/transcripts for finer analysis.

Day 9 - 11: Affected group discussions

This group discussion is held with community members who are affected by or directly involved in the research topic being investigated. This discussion would only be conducted if the research topic involves groups affected by a particular condition or issue (e.g. people living with HIV) and not the community at large.

Aim:.

The discussions are again structured around participatory activities. The aim is to explore the group members' direct experiences of the research focus area. A semi-structured discussion guide is used to lead discussions. Group discussions that can be conducted (depending on the research question) include: discussion with people living with HIV, teenage mothers, people living with disabilities, TB survivors, drug users, etc.

Number of participants:

8 - 15 participants

Duration:

60 - 120 minutes

Research Tool:

Affected group discussion guide

Recruiting the group members:

Depending on the research topic, these participants can be more challenging to recruit because of closed networks, stigma, safety, or fear of disclosure. Researchers should be sensitive to these challenges. One option is to make use of snowball sampling or to ask familiar contacts/key informants to help with recruitment.

The following are suggested activities that can be included in the group discussion, but should be adapted according to the research question:

1. **Icebreaker and introductions.**
2. **What kind of place is this?:** Interactive activity where participants are asked to draw pictures/ write words to describe their community followed by discussion.
3. **History of ? (research focus area):** Participants jointly complete a timeline of the given focus area. When did they first hear about the issue, when were the first interventions, services, or treatments made available, who accessed these services and where were they made available.

Form of data recording:

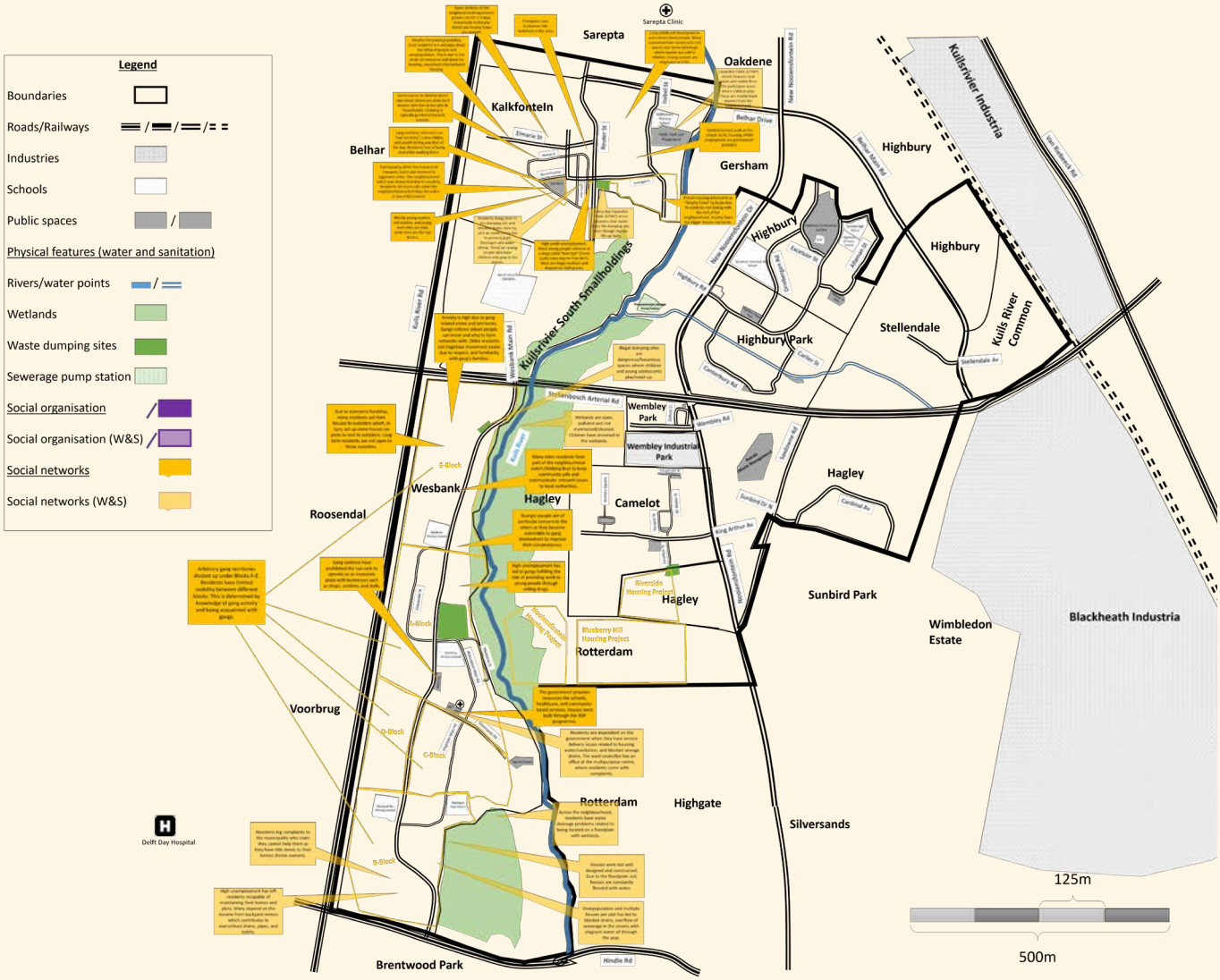
Photos of activities, field notes, voice recording.

Data outputs:

A summary of the discussion and activities to feed into the community profile, scripts/transcripts for finer analysis.

Day 12: Community profile report writing and mapping: Draft 3

Time is set aside to update the community narrative report and reflect on data collected during the group discussions on Day 8 -11. The aim is to create the third iteration of the report, as data is collected. The community map can also be updated.



Example of detailed map after 10 days fieldwork

Day 13 - 14: Key informant interviews

These interviews are held with different key persons who have knowledge of the community, or the issue being investigated.

Aim:

to build on the description of the community from group discussions and observation. Discussions are structured around fewer interactive activities and are more conversational. Participants could include ward councillors, government officials, health facility mangers, and other key members, depending on the research questions.

Duration:

60 - 120 minutes

Research Tool:

Key Informant Interview Guide

Activity description:

A one-on-one discussion structured around key focus areas related to the research question. These discussions expand on previous group discussions, focusing on how people interact and understand this place/community, including how they relate to the place and the history of the place. Discussion with key informants are likely to require appointments and are usually held at a location indicated by the participant. For instance, health facility managers would be interviewed in their offices at the health facility.

The following are suggested framings of topic areas that can be included in the interview, but should be adapted according to the research question:

- Introductions and explanation of study
- Who is doing what in this community?: exploring relevant stakeholders and service providers.
- Exploring community awareness of (research focus area).
- The history of (research focus area) in this community.

Form of data recording:

Field notes, voice recording.

Data outputs:

A summary of the discussion to feed into the community profile, scripts/transcripts for finer analysis.

Days 13-15 ‘Mop-up’ activities and site exit

During data collection there might be challenges in completing certain activities, or group discussions might be postponed, interviews rescheduled, or researchers might want to re-do observations based on feedback from participants during group discussions. Researchers should budget an additional day or two to do ‘mop-up’ activities and to ensure that they have all the information needed to “build the picture”.

Day 15: Community profile report writing and mapping: Draft 4

Time is set aside to create the fourth community narrative report and reflect on data collected during the individual interviews conducted from Day 13 -14. This report will then be revised to rapidly produce key community profile outputs, detailed in Chapter 6.

Similarly, researchers will update the draft of the community map, with updated key information inserted based on findings from all data collection. The map will also be revised to discuss and share with the community and other stakeholders.

Chapter 4: Organising and analysing the data: Preparing for rapid feedback

Chapter 4:
Organising and analysing the data: Preparing for rapid feedback

This chapter covers:

- Tailoring data management to the BBS approach
- The iteratively created community profile report
- Naming and dating data and outputs
- Ethical issues about data storing and future sharing
- Analysis of a community
- Analysis across communities

Introduction

In this chapter we describe how data collected as part of the BBS approach can be managed, organised, and prepared for analysis. Data organisation, processing, storage, and analysis are relevant throughout the BBS approach. From the start of the approach when defining the project communities and topic(s) of interest up until the dissemination of the reports, we need decide and know how to manage the data. Remember, the BBS approach is outcome-directed; we know from the start what we want to do with the data. Also, the BBS approach is almost always implemented by research teams (not individuals), which makes consistency between team members' handling of data especially important.

Tailoring data management to the BBS approach

1. Working in teams and (often) across many communities.

It is more common to be using BBS when researching multiple communities,

sometimes across geographically distant places including across countries. Teams often constitute at least the senior socio-behavioural scientist, at least two graduate socio-behavioural scientists, and often local field research assistants who are all part of data collection and management. The data are shared between members of the team as part of the iterative analysis process. It is therefore imperative that (a) all members of the team can easily see in data documents what the document includes – e.g., was it a group discussion or field notes from observations, where, on what date and so on. Further, that (b) data can be sorted by type (e.g., all data with women participants or all data from community X) across data collectors. This means that BBS data must have a document naming system that is universally applied by all team members.

2. Meta-indicators framework:

As emphasized throughout the manual, the uniqueness of a BBS approach is that contextual detail on communities is organized according to four layered meta-indicators – physical features, social organization, social networks, and community narratives. Data activities do not directly link to any of one these meta-indicators necessarily. For example, in an individual key informant interview we may learn about all or only some the four meta-indicators. However, during analysis, it is very important to be able to look at all data relevant to a specific meta-indicator together and excluding those data that are not relevant to the meta-indicator.

3. Outcome-driven pragmatism and rapidity:

The data must be analyzed in parallel to data collection, and toward the pre-specified project aim and objectives. The BBS approach is directed, not exploratory. For example, if the project is about challenges for implementing a tuberculosis preventive therapy trial in 12 potential study communities, then the project's BBS team must be able to make concrete recommendations about this issue within a short time (1 week to a month) of completing fieldwork. The BBS approach, including each of the activities and the meta-indicators framework, generates very rich data that are easy to be distracted by. Communities are highly complex, dynamic, and multi-layered. All too often we see novice users of the BBS approach spending far too much time detailing descriptions of the community generally. For example, the micro-politics of participant A saying something about their neighbour. Rather, the value of the BBS approach is through framing that data in terms of social organization and networks relevant to the project focus (e.g., lack of community connectedness undermines door-to-door health intervention). Data management organized by project aim and objectives is a tool for keeping the project focus on these rapid, pragmatic outcomes.

"The BBS approach is about orienting outsiders. BBS should provide people planning a research or implementation project sufficient understanding of the community (across the four meta-indicator layers) for them to be able to make good choices about practical things"

4. Taking a birds' eye view snapshot by 'mapping it out':

The BBS approach is about orienting outsiders. BBS should provide people planning a research or implementation project sufficient understanding of the community (across the four meta-indicator layers) for them to be able

to make good choices about practical things like who to be in contact with locally, how much time to allocate to various activities, what challenges might be encountered and so on. For example, in planning for a large community-randomized trial for an intervention that included door-to-door HIV testing services, the BBS approach enabled the trial team to know in advance that residents of a particular community would be very unlikely to be at home during working hours because of local labour options and networks. We have found that for people to understand place, they require at least a geographical mapping orientation as a starting point to begin their orientation to the community. Therefore, all data management in the BBS approach is toward locating information relative to places in the community. This means, that more than usual detail is required for knowing where in the community the data were collected and where the participants are talking about when they do so in group discussions or individual interviews. Further, it means labelling these data accordingly such that the links between data and the place can be represented graphically in a map.

"We have found that for people to understand place, they require at least a geographical mapping orientation as a starting point to begin their orientation to the community."

5. A stepwise process with multiple iterations:

The BBS approach is premised on the idea that the research team may visit a community for approximately two weeks, and then return from the 'field' with a rapid report describing their understanding of the local dynamics. Classically, this might have meant collecting data during the day, and organizing analysis of this in the evenings. The set sequence of activities, designed around the meta-indicators and broad context to specific topic detail, is mirrored in the process of data being analyzed iteratively, with incremental understanding of the community built up with every-increasing depth of understanding in parallel to data collection. This means that data must be readily to hand and easy to sort through. It also means that the data collectors' thoughts (iterative analysis) must be recorded and tagged to data as these develop – see 'community profile description' below. Data also need to be organized in a way that facilitates sharing and iterative analysis across geographically distant team members using electronic platforms. For example, we have implemented several BBS projects across multiple provinces in Zambia and South Africa and have made increasing use of file-sharing software to facilitate real-time access. This is not easy given the need to protect participant and community anonymity (see below). We recommend careful planning in advance to facilitate this process.

The iteratively created community profile report

Given the rapid nature of the BBS approach and the dynamics of data management (as above), we suggest that the BBS project team be actively working on three key outputs even before they have gone to the field to collect data:

1. A long narrative report, usually 15-25 pages, which describes the community in detail as organised by the four meta-indicators.
2. A graphical representation (map) of the meta-indicators.

3. A 1-page (landscape) matrix of key information about the community organized by the meta-indicators (i.e., four columns).

On each one of the suggested four community profile report and map writing days of data collection (see previous chapter), the project team will be iteratively updating these outputs as they learn new details about the community. These updates must be shared across the team who will provide 'live' input, asking for clarifications and similar, so that the data collection team can them collect additional data if needed in an iterative back-and-forth between data collection and analysis toward profiling the community.

Importantly, these updates must distinguish between 'corrections' to earlier errors in understanding and the 'greater complexity' in understanding from other perspectives. For example, frequently residents of different neighbourhoods have very different perspectives on services in their community. The revisions to the community profile reports should include the evolving complexity rather than trying to distil and edit down to 'the' truth. Our suggestion is record as much detail on evolving complexity in the long narrative report. For example:

Include both of *"On 01 May 2022 we learned that according to residents in 'happy place' neighbourhood they have been without water services for the preceding three months"* as well as *"On 04 May 2022 we learned from the local ward councillor that water services in 'happy place' are running smoothly – see field notes from 01 May 2022 above".*

It is critical that these outputs differentiate between meta-indicator information that is general to the community from that which is specific to the project topic in focus. For example, the physical feature of neighbourhood boundaries might be a physical meta-indicator general to the community, whereas the location of a communal water point is a meta-indicator specific to a BBS project on water services. We have found that colour-coding meta-indicators and having dark versus light shading for general versus specific is very helpful in generating outputs that can be rapidly understood and analyzed across team members.

NB. We have learned many difficult lessons when we have attempted to only start to develop these outputs after completing fieldwork. Inevitably, detail is lost and the analysis process much longer than planned because memory has faded, and the team must return multiple times to the raw data.

Naming and dating data and outputs

We recommend that every data element and every iteration of the community profile report and map include the same core identifying elements in the file name. For example, this includes audio recordings of discussions, typed field notes, photos, and anything else relevant. This includes renaming scanned copies of documents that were initially collected as hard copies but will be analysed on computer.

We suggest that training on file naming be core at the start of BBS projects and that the project leaders actively monitor compliance with the agreed naming system to ensure that the unique challenges of BBS data are mitigated. We recommend minimum elements to naming files to use the CAPIDD acronym of:

- Community (ideally a prespecified number code, e.g., Zam01)
- Activity type (e.g., 'GD' for group discussion, or 'EveObs' for evening

observations)

- Participant type (e.g., 'stakeholders' or 'young women')
- Initials of the data collector
- Document type (i.e., field notes, transcript, photo (numbered 1 upwards), etc.)
- Date; written YEARMMDD

For example, a file named "Zam03_GD_young men_VB_photo4_20220912" is readily identifiable as the fourth photo taken at a group discussion with young men in Zam03 by VB on 12 Sep 2022. Using this naming convention consistently has the added benefit that computer systems will auto-sort alphabetically meaning that data from the same communities and activities will be sorted close to each other in data folders.

We further recommend that data folders be organised by community code only – i.e., within project folder 'BBS01' to have separate folders for each of the project communities and all data relevant to those communities within the community folders. In addition, to include four sub-folders labelled in line with the meta indicators:

- "Project_Community_Physical"
- "Project_Community_SocOrganisation"
- "Project_Community_Networks"
- "Project_Community_Narratives"

As part of daily storage of the data, the data collector would store a master copy of all data in the general community folder, plus a duplicate of each data file in each of the sub-folders that are relevant. For example, perhaps "Zam03_GD_young men_VB_photo4_20220912" is relevant to networks and narratives. If so, it would be stored in the master "BBS_Zam03" folder, plus the "BBS_Zam03_Networks" and "BBS_Zam03_Narratives" sub-folders. Although this may seem laborious, it is integral to the intra-project team sharing and iterative analysis processes that enable the BBS approach to be rapid.

Ethical issues about data storage and future sharing

By definition, the BBS approach produces a highly detailed description of a place that people could recognise. Further, this is likely to include negative perspectives about the place and people identifiable in that place. For example, in projects we have implemented about health or other social services, it is almost always true that 'poor' service delivery complaints are levelled against local government officials by the residents. But these same local officials are key stakeholders and often partners in implementing the project. The findings from BBS are a collation of a small proportion of residents' perspectives synthesized by the project team (outsiders) that is subject to a variety of potential biases. And it is only a birds' eye view snapshot at a specific point in time when we know that communities are dynamic.

It is therefore essential that the project team have a clear plan for how they will manage (a) community anonymity (i.e., that the community that participates in the research not come to be labelled as X because of a BBS finding), and (b)

internal anonymity of BBS participants (i.e., that JP said "my local politician is the worst"). This must be considered for all 'raw' data and any public presentations of findings. Further that (i) this plan be clearly articulated in the project protocol reviewed by the local research ethics committee, (ii) all project personnel are thoroughly trained and have appropriate oversight on this matter, and (iii) that during community entry local stakeholders are informed of this tension and how the project team will protect anonymity.

During projects, compliance with this principle is relatively easy to implement. However, because the BBS approach allows for understanding of communities across contexts, it is also primed for data sharing across multiple teams working in different places, often across institutions and countries. Further, it is primed for understanding communities over time if there are multiple rounds of data collection in the same community. Therefore, beyond having internal consistency within a project, we suggest that the same conventions are followed across BBS projects. Pragmatically, we recommend that all BBS projects:

1. Include inter-institutional data sharing agreements that specify measures to protect community anonymity and operationalize beneficence toward these communities.
2. Specify as far as possible in the protocols reviewed by local research ethics committees how these issues will be managed.
3. Ask permissions for longer-term storage and sharing of anonymized data from both individual participants (during consenting) and from the community (during the community-level dissemination process).
4. Do not include BBS data in public repositories even if required by journals, instead keeping these data protected in a repository with restricted access following local research ethics committee approval.

Analysis of a community

Using the BBS approach, every community will already have the community profile reports written as a long narrative report, a graphical representation (map), and a one-page matrix of key features.

"We suggest that immediately post-fieldwork, the BBS project team participate in an analytic workshop. The focus here is to co-develop and write a short narrative report about the study community using the meta-indicators framework."

We suggest that immediately post-fieldwork, the BBS project team participate in an analytic workshop. The focus here is to co-develop and write a short narrative report about the study community using the meta-indicators framework. The audience for this short report is the study or implementation team who will use the BBS to inform their planning.

The analytic process is to have a facilitator (typically the BBS project lead) who asks the data collection team members to describe the community in terms of each meta-indicator in turn – physical features, social organisation, networks, and narratives. The team use the sub-folders (e.g., "BBS01_Zam03_physical") to supplement their memory and provide illustrative examples. Another member of the project team will draft this short report in the workshop.

We recommend that this report be approximately 2-pages, including figures. Typically, this would include at least a picture of the main physical features of

the community and then text to describe each of the meta-indicators.

Analysis across communities

BBS has proven to be extremely effective for comparative community level research analysis because of the systematic application of: 1) the meta-indicator framework; 2) the set sequence of qualitative research activities; 3) the core training of the BBS team. Done well, BBS data should be comparable.

In analyses to date, BBS researchers have compared community level data across each meta-indicator, topic-specific meta-indicator data, and additional contextual topic specific data. The data are prepared for this cross-community, and often cross-country, comparison through manual, stepped analysis by one or more researcher. This process might draw on data that has been transcribed, coded and managed using a qualitative software package, and/or data that has been organised more manually according to themes and/or within community profile reports. Comparative analyses can be both rapid and finer, with the latter often leading to higher-education and/or peer-reviewed outputs.

Resulting cross-community analyses have included technical reports and meeting/conference presentations that present findings linked to the study specific BBS aim and objectives by summarising topic landscapes (e.g. 'HIV landscapes'), or focusing on one topic across communities (e.g. HIV related-stigma or the informal economy of water and sanitation infrastructure). Finer analyses using BBS data are aided by using matrices to systematically organise and compare data within and across communities. The screenshot below illustrates this approach. See the following references for examples of publications that used BBS analysis across communities: Bond et al., 2016, Viljoen et al., 2017, Seeley et al., 2018, Bond et al., 2019, Bond et al., 2020.

Finer BBS analysis using a matrix

South Africa Community Example from the HPTN 071 PopART study (Bond, Hoddinott et al., 2021)

Physical Features	Social Organisation	Social Networks	Community Narratives
South African community – classified as very closed			
Housing options: Mostly formalised housing, older community, some hostels (apartments) that are more dangerous to live in. Housing is middle density. **Employment:** There are more employment options although mostly outside the community, (in town or on farms, tourism). Little economic development inside the community. Some lower SES community members rely on recycling for income. Also some criminal activity. **Boundaries:** community is located at the outskirts of affluent tourist/ student town and is flanked by an affluent private (mostly white) development and a lower SES (mostly black/ Xhosa) more informal community **Population:** Mostly Afrikaans; coloured population who have been living in the community for generations; older population with small number of Xhosa speakers and foreigners. Mostly middle-class. **Infrastructure:** There are two clinics, a few parks, mostly well-maintained roads. Hospital close by. Large rugby stadium. Pride in sport	**Housing Distribution:** Formalised housing for older generations of families, established households. Some informal housing at the outskirts of the community. **Employment distribution:** Slightly higher SES employment for some segments. Formal and informal employment. **Transport and services:** Community located close to town and close to two main roads, easily accessible. **Population movement:** Predictable movement on a daily basis to and from work. Less seasonal movement.	**Connection and relationship:** Close familial ties, close networks, older generation as gatekeepers. Gang members, although more muted in recent times. **Network Spread:** Gang members, closed sexual networks (although inter-generational) **Social Capital:** Very few active NGOs. HIV incidence here is higher than in SX/SY. Suggests the risks of gangs, intergenerational and closed sexual networks, coupled with not acknowledging the risk of HIV. **Network Boundaries:** Very closed community, distrustful of outsiders. No mention of strong leaders or individuals, although older community members do hold some sway. No mention of political affiliations.	**Histories:** Old community, multiple generations living here, established. Identification with networks. Closed community cautious of outsiders, believe that HIV is 'other' (Moral high ground) **Commitment to place:** Strong degree of closeness and family ties provide stability and strong intergeneration support but also mean that residents feel very boxed in and confined and stuck. Sport is seen as a way out of the community **Gossip:** Strong blaming patterns towards other ethnic groups, young people ('immoral') and KPs. **Health narrative:** Alternative support in herbs (folk knowledge) and religion (some mention that if you pray enough you can be healed)

Finer BBS analysis using a matrix

Zambia Community Example from the HPTN 071 PopART study (Bond, Hoddinott et al., 2021)

Physical Features	Social Organisation	Social Networks	Community Narratives
Zambian Urban community- classified as very open			
Housing: planned small houses mainly (council, mine history), some new bigger houses (3 bedroomed+) being built by middle class moving in. **Employment:** some formal work in mines, trading, artisans, (welding, carpentary) mobile money, young people entrepreneurs (barber shops). **Physical features:** shopping mall, bank, clinic , secondary school. Close to main road. Porous (people pass through). **Population:** enthically mixed, young people very visible, mainly lower social-economic status but new middle class growing.	Population and work/ housing divisions more legacy of past. Big new houses built by often employed middle class moving in. One clinic within – others in surrounding community. Neighbourhood health committee very active. Long history of HIV initiatives middle 1990s testing. Community Health Workers working with HIV a good reputation. High value on education. Secondary school within. Very mobile community. Predicatable, daily mobility includes large market that pulls traders in, mine workers that bus workers out, seasonal mobility linked to fishing. Bus stop very busy. Young people very active & enterprising. Outsiders come in and pass through.	**Extensive networks:** market & bus depot (inc. Sexual exchange), sex work in bars & guest houses, alcohol venues pull people in, trading pulls people in & out (some rural traders spend the night at the market), open to door to door testing, open, welcoming, too busy to test/not home. **Intensive:** rumours re testing making you HIV+, faith healers, Patronage (politically favoured), voluntary medical male circumcision resistance, community protective, middle class less involved unless retired or living with Hiv. Bridging: immediately patronage (politically favoured), voluntary medical male circumcision resistance, community protective, middle class less involved unless retired or living with HIV. **Bridging:** immediately responsive to PopART, trusted trial specific workers, excellent response to HIV self-testing, clinic flexible & friendly, support group for adolescents living with HIV & parents re discloure etc., give ART to mobile clients.	Residents consider it the capital city of the town you haven't visited the town if you haven't visited Z1! They say they have everything they need in Z1 because they have infrastructure & options that others don't. Historically strong links to the council and mines. Now linked to the ruling president (born there) and politacally favoured. Protected, connected, contained. Upbeat, busy, open. Hardship is alcohol abuse and economic. Although relatively robust, growing middle class, extremely mobile.

References and Resources

Bond, V., Hoddinott, G., Viljoen, L., Simuyaba, M., Musheke, M., Seeley, J. and HPTN071 (PopART) Study Team, 2016. Good health and moral responsibility: key concepts underlying the interpretation of treatment as prevention in South Africa and Zambia before rolling out universal HIV testing and treatment. *AIDS patient care and STDs*, 30(9), pp.425-434.

Bond, V., Hoddinott, G., Viljoen, L., Ngwenya, F., Simuyaba, M., Chiti, B., Ndubani, R., Makola, N., Donnell, D., Schaap, A. and Floyd, S., 2021. How 'place'matters for addressing the HIV epidemic: evidence from the HPTN 071 (PopART) cluster-randomised controlled trial in Zambia and South Africa. *Trials*, 22(1), pp.1-13.

Bond, V., Nomsenge, S., Mwamba, M., Ziba, D., Birch, A., Mubekapi-Musadaidzwa, C., Vanqa, N., Viljoen, L., Pliakas, T., Ayles, H. and Hargreaves, J., 2019. "Being seen" at the clinic: Zambian and South African health worker reflections on the relationship between health facility spatial organisation and items and HIV stigma in 21 health facilities, the HPTN 071 (PopART) study. *Health & place*, 55,

Krishnaratne, S., Bond, V., Stangl, A., Pliakas, T., Mathema, H., Lilleston, P., Hoddinott, G., Bock, P., Ayles, H., Fidler, S. and Hargreaves, J.R., 2020. Stigma and judgment toward people living with HIV and key population groups among three cadres of health workers in South Africa and Zambia: analysis of data from the HPTN 071 (PopART) trial. *AIDS patient care and STDs*, 34(1), pp.38-50.

Murray, E.J., Dodd, P.J., Marais, B., Ayles, H., Shanaube, K., Schaap, A., White, R.G. and Bond, V., 2021. Sociological variety and the transmission efficiency of Mycobacterium tuberculosis: a secondary analysis of qualitative and quantitative data from 15 communities in Zambia. *BMJ open, 11*(12), p.e047136.

Murray, E.J., Bond, V.A., Marais, B.J., Godfrey-Faussett, P., Ayles, H.M. and Beyers, N., 2013. High levels of vulnerability and anticipated stigma reduce the impetus for tuberculosis diagnosis in Cape Town, South Africa. *Health policy and planning, 28*(4), pp.410-418.

Murray, E.J., Marais, B.J., Mans, G., Beyers, N., Ayles, H., Godfrey-Faussett, P., Wallman, S. and Bond, V., 2009. A multidisciplinary method to map potential tuberculosis transmission 'hot spots' in high-burden communities. *The international journal of tuberculosis and lung disease, 13*(6), pp.767-774.

Seeley, J., Bond, V., Yang, B., Floyd, S., MacLeod, D., Viljoen, L., Phiri, M., Simuyaba, M., Hoddinott, G., Shanaube, K. and Bwalya, C., 2019. Understanding the time needed to link to care and start ART in seven HPTN 071 (PopART) study communities in Zambia and South Africa. *AIDS and Behavior,* 23, pp.929-946.

Simwinga, M., Bond, V., Makola, N., Hoddinott, G., Belemu, S., White, R., Shanaube, K., Seeley, J., Moore, A. and HPTN 071 (PopART) Study Team, 2016. Implementing community engagement for combination prevention: lessons learnt from the first year of the HPTN 071 (PopART) community-randomized study. *Current HIV/AIDS Reports, 13*, pp.194-201.

Simwinga, M., Ndubani, R., Schaap, A., Ziba, D., Bwalya, C., Belemu, S., Ngwenya, F., Bwalya, J., Shanaube, K., Hoddinott, G. and White, R., 2022. Disseminating complex primary outcome results from a community-randomised trial to Zambian communities: lessons learned using a community dialogue approach in the HPTN 071 (PopART) trial. *The Lancet HIV, 9*(11), pp.e801-e808.

Tindana, P.O., Kass, N. and Akweongo, P., 2006. The informed consent process in a rural African Setting:: A case study of the Kassena-Nankana District of Northern Ghana. *Irb, 28*(3), p.1.

Viljoen, L., Hoddinott, G., Malunga, S., Vanqa, N., Mhlakwaphalwa, T., Marthinus, A., Mcimeli, K., Bond, V., Seeley, J., Bock, P. and Hayes, R., 2021. Women's sexual scripting in the context of universal access to antiretroviral treatment–findings from the HPTN 071 (PopART) trial in South Africa. *BMC Women's Health, 21*(1), pp.1-13.

Viljoen, L., Ndubani, R., Bond, V., Seeley, J., Reynolds, L. and Hoddinott, G., 2017. Community narratives about women and HIV risk in 21 high-burden communities in Zambia and South Africa. *International journal of women's health,* pp.861-870.

Chapter 5: A worked example of the BBS approach in the ‘RINSS’ project

Chapter 5:
A worked example of the BBS approach in the 'RINSS' project

This chapter covers:

- Overview of the RINSS case-study
- Pre-field desktop research on water and sanitation in targeted communities
- WASH Score Card
- BBS Field Activities adapted to WASH
- Reflections on using BBS in Zambia related to WASH

Introduction

In this chapter, we illustrate how the BBS approach was applied in a water and sanitation research study by both social scientists and water engineers. The chapter was a collaborative contribution across both disciplines. It aims to demonstrate how a mix of disciplines understood and used BBS in two urban communities in Lusaka, Zambia with the intended purpose of improving water and sanitation infrastructure.

Overview of the RINSS Case Study

The BBS approach is a way of rapidly assessing a community to address an applied social, economic or health research problem through a structured set of data collection activities.

In collaboration with water engineers, the RINSS study adapted BBS to assess the local context in four urban communities in Zambia and South Africa for the purpose of water and sanitation infrastructure interventions. The usefulness of community-specific findings and outputs were assessed the with communities, other stakeholders and across disciplines. The study team was multi-disciplinary and comprised of social science (social anthropology, psychology, development studies, ethics, community engagement, geography), public health and water engineering.

Water, Sanitation and Hygiene (known as WASH) is one such research problem where the application of BBS was extremely effective. BBS allows for the exploration of the status of WASH within a community relative to the four meta indicators. It allows the researcher to gain a holistic sense of WASH issues within a community through the exploration of elements such as access to clean drinking water, the public health implications, and an exploration of the broader social and economic constructs around gender, safety, costs, and reliability of drinking water sources (United Nations, 2022). Issues related to sanitation include the adequacy of disposal and therefore the public health and environmental consequences as well as community safety. Aspects connected to hygiene include knowledge and education on access to soap and washing facilities in order to reduce disease (United Nations, 2022).

The BBS approach was used in two communities in both Zambia and South Africa to document, compare, classify, and communicate community features specifically related to WASH. Through a set sequence of participatory qualitative methods and fieldwork as outlined above, rapid community profiles were generated for the four key indicators: physical features, social organisation, networks, and community narratives.

Pre-fieldwork: Desktop research on water and sanitation in targeted communities

Pre-field work included desktop work to develop a background understanding of the communities. During this period, a search through relevant literature and any other sources from the local authorities, regulatory bodies, and government agencies was conducted. Furthermore, information from previous research conducted in the community and data from other peer- reviewed articles was included in our search. Area development plans and similar documents were available online and provided a good baseline source of information.

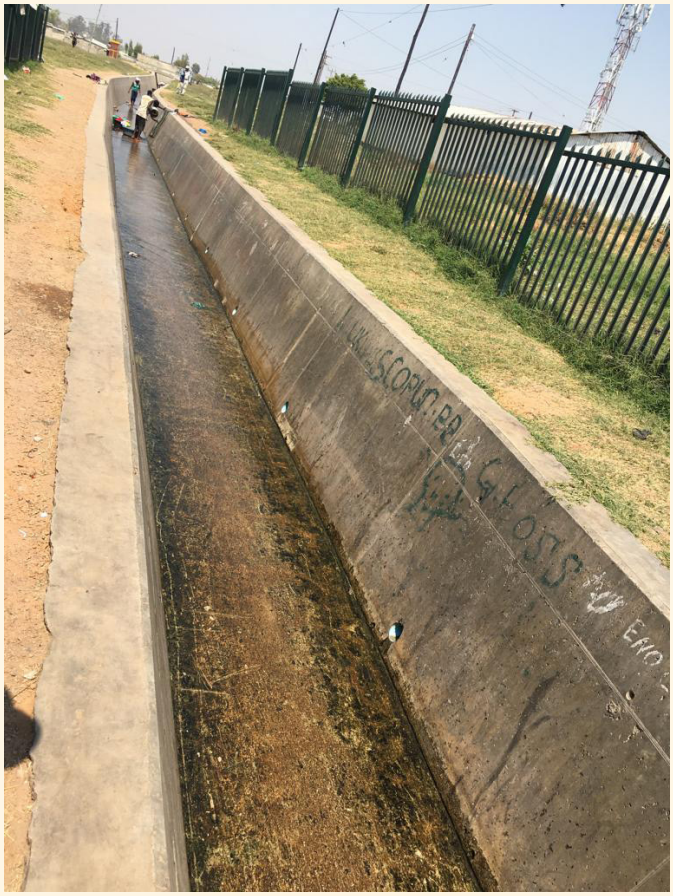
General community information (as described in earlier chapters) along with detailed WASH information from the background search needed to be organized. The development of a matrix was helpful for this step. This matrix included community information according to: political boundaries, ground area, dwelling profile/housing type, demographic profile, socio-economic characteristics, geo-topography, land utilization, services, and resources provided by government or private and the identified challenges. This matrix of background information formed the basis on which the long community profile and the four meta indicators were then developed.

The table below summarises the data of relevance during the desktop phase of BBS as related to WASH. This data was compiled alongside the community information that was collected (e.g. boundaries, housing types, topography) to complete the baseline information about the community to be studied.

Table of Data types and sources for WASH applications in BBS, Desk Top Research

Data type	Description	Source
Water Infrastructure	**Data included layout drawings and reports detailing:** water pipes, water treatment works, standpipes, connections to households, water sources	**Local Authority Planning Documents** e.g. Water Services Development Plan available online
Sanitation Infrastructure	**Data included layout drawings and reports detailing:** sewerage pipes, wastewater treatment works / sewerage ponds, toilet facilities	**Local Authority Planning Documents** e.g. Water Services Development Plan available online
Stormwater Infrastructure	**Data included layout drawings and reports detailing:** stormwater pipes, culverts, canals, rivers, and detention ponds	Local Authority, online map providers
Topographical map	1: 50 000 map showing geospatial information	Director General / Provincial Planning Authorities, online map providers

Old Kiosk with token system in Z2



Bombay drainage system - social networks around washing and drawing water including playing area for children

Social networks based on water collection

Social networks based on sharing water and drums in Z2 - a form of social capital

Social networks based on sharing water and drums in Z2 - a form of social capital

VIP dry Pit latrine – constructed under the Lusaka Sanitation program

Individual Household Pour flush toilet

WASH Score Card

To assist in the field visit data collection related to WASH, a score card checklist was developed after the Desktop search. This was an additional observational tool to add to the BBS set of tools. This WASH score card helped field staff to know what to look for, document key information, and organize their findings. Depending on the local context, this score card should reflect the type of infrastructure in place, with photos or diagrams to help illustrate the aspects that should be observed during field work. WHO guidance provides a good source of base information (WHO, 1997) that can be adapted for the local context. Note that the purpose of the BBS was not to conduct a detailed inspection of the WASH infrastructure but rather to focus on observation of several key elements within the community: the physical location and configuration of the infrastructure, the condition and accessibility of the infrastructure, and where possible, the different uses of the infrastructure at each location.

The following table provides an example of the BBS WASH score card developed for RINSS. This example was designed to provide a simple list of features to be observed, with yes/no answers to be recorded in the field rather than detailed descriptions. Other notes can also be recorded.

Table of RINSS WASH score card

Variable	Variable description and measure	Yes) or No (x)
Water	**Type of water source**	
	Piped Water	Yes ☐ No ☐
	Standpipe	Yes ☐ No ☐
	Kiosk	Yes ☐ No ☐
	Bottled water or sachet	Yes ☐ No ☐
	Borehole water	Yes ☐ No ☐
	Dug well hand pump	Yes ☐ No ☐
	Scoop well water	Yes ☐ No ☐
	Running stream or river water	Yes ☐ No ☐
	Stagnant dam water	Yes ☐ No ☐
	Condition of water and facility/source	
	Obvious pollution sources nearby (e.g. animals)	Yes ☐ No ☐
	Treatment present	Yes ☐ No ☐
	Water pressure good, available any time	Yes ☐ No ☐
	Well maintained, clean	Yes ☐ No ☐
	Tap can open/close	Yes ☐ No ☐
	Poor physical condition (e.g. leaking, muddy)	Yes ☐ No ☐
	Method of collection/distribution if not piped system	
	Containers for filling and carrying	Yes ☐ No ☐
	Prefilled bottles or containers	Yes ☐ No ☐
	Use on site	Yes ☐ No ☐
	Utilisation of this water source	
	Toilet Flushing	Yes ☐ No ☐
	Bathing, washing clothes, washing dishes	Yes ☐ No ☐
	Gardening	Yes ☐ No ☐
	Irrigation of edible crops	Yes ☐ No ☐
	Animal use/watering	Yes ☐ No ☐
	Other household chores and activities	Yes ☐ No ☐

Table of RINSS WASH score card (continued)

Variable	Variable description and measure	Yes) or No (x)
Sanitation	**Type of sanitation**	
	(Wet) Water closet toilet -private	Yes ☐ No ☐
	(Wet) Water closet toilet -shared/community	Yes ☐ No ☐
	(Dry) Ventilated Improved it Latrine	Yes ☐ No ☐
	(Dry) Pit Latrine	Yes ☐ No ☐
	Open defecation/urination	Yes ☐ No ☐
	Condition of sanitation	
	Obvious pollution (solid waste)	Yes ☐ No ☐
	Obvious sewage spills	Yes ☐ No ☐
	Odours	Yes ☐ No ☐
	Type of structure-permanent, concrete or similar	Yes ☐ No ☐
	Type of structure-temporary, makeshift, or similar	Yes ☐ No ☐
	Well maintained facility	Yes ☐ No ☐
	Well maintained toilet	Yes ☐ No ☐
	Toilet can flush	Yes ☐ No ☐
	Poor physical condition (e.g. leaking, muddy)	Yes ☐ No ☐
General (Water and Sanitation)	**Access**	
	Private use household or institution	Yes ☐ No ☐
	Shared by other households	Yes ☐ No ☐
	Public use-free (uncontrolled access)	Yes ☐ No ☐
	Public use -free (controlled access)	Yes ☐ No ☐
	Public use -paid (controlled access)	Yes ☐ No ☐

BBS field activities adapted for WASH

Following the general BBS procedures (as outlined in Chapter 3), the following sections describe the specific additional details that were included for a WASH application of BBS.

Gaining Community Consent and initial discussions in the community

During initial data collection in the communities, the community leaders were engaged. These included leaders of health facilities, churches, schools, and ward leaders. The stakeholders were first asked to draw a map of their communities indicating places of relevance linked to water and sanitation, such as the formal water sources, the informal water sources, the schools, the health facilities, the places of employment, markets, and other areas with water-related uses. After the mapping activities, the stakeholders were then asked to indicate the usability of each WASH facility indicated on the map.

Informal group discussions at this stage were helpful to draw out information about the type of activities that occur at water points and who is responsible for collecting water. This discussion also helped researchers understand the history of WASH in the communities and what implications the community layout and topography had on the sources of water used.

Other information that was collected included the accessibility, popularity, cost, and preference among the different water and sanitation options. A ranking exercise was conducted at the end of the discussion which was used to identify places and spaces that could have been considered hotspots for water borne diseases in the communities and a list of common diseases was compiled.

This information could then be used to help design the transect walk with stakeholder input on which routes to use and places of significance to visit.

Transect Walk

Using the route co-developed with the stakeholders, teams carried a GPS device and a GPS data capture sheet to record the geographical coordinates of places of relevance to the study, such as the clinic, schools, and WASH facilities. While walking, researchers endeavoured to interact with community members at water points and get a good visual understanding of the type of water, sanitation, and stormwater infrastructure that was in the community. The transect walk was used to identify WASH facilities that were later observed during the timed observations.

Structured Timed Observations

These observations included observing key WASH locations in the community for a specified period of time, generally 10-15 minutes. The first observations covered the main entry or exit points for the community, and significant transport depot locations, where the focus was to observe movements made in the morning and evening into, out of, and around the community. This observation provided information about mobility patterns within and outside the community related to WASH provision and at what times the communities were the busiest.

For WASH infrastructure, timed observations using the WASH score card

were carried out at selected water and sanitation facilities. For water points with formal infrastructure, focus was on different parameters including the type of water provision, physical structure, its condition, water pressure, and cleanliness of the overall environment. For informal water points, observation on the type of source water and the environment around the source were carried out. Where possible, community members were asked questions about accessibility, what the water was being used for, and the methods of collection and treatment used. The score card for each facility was filled in and short-hand notes were written to provide extra details about the facilities.

For the sanitation facilities, the focus of the observation was the type of toilet structures, their condition and use, including who was responsible for cleaning, usability, emptying, and access. Where applicable, consent from the owner of the facility was obtained prior to the observation period. Additional information such as the number of households using the facility was sometimes obtained from the owners.

At health facilities, observations focussed on the facilities' source of water and the type and condition of the sanitation facility including how the facility managed solid waste. Where possible, researchers also conducted a short interview with the Environmental Health Team (or equivalent) about WASH at the facility and in the community.

The team also explored the types of water sources and any local knowledge that would link water sources to diseases that were in the communities. They also explored what activities were carried out in the communities with regards to WASH sensitization. The researchers then conducted a clinical checklist that involved asking about 30 to 40 participants (patients seeking treatment/ services) to establish whether community members had ever contracted a water-borne disease and how often it had happened. Other questions that were included were the type of water related diseases in the community they have heard about and whether they knew of any neighbour or friend who has had contracted such a disease.

A scope during a timed structured observation in Z2 – A resident uses a small plastic bottle to fill a water bucket

Weekend timed observations were also carried out, with weekend definition adjusted for the local customs. These observations within the communities allow the researchers to understand how community organization, behaviour, and WASH activities differ from weekdays. The weekend observations followed the same route taken during the transect walk, noting where people fetch water from, the methods of collection and water related activities during the weekend such as washing of clothes. These observations were carried out for two hours in each community during day time and at night. During night observations, researchers were accompanied by a local field worker and also observed bars, clubs, or other locations that may have been closed during the day.

Similarly, on worship days (varies depending on the dominant religions in the area), timed observations at different churches within the community were conducted, in order to understand the extent of WASH sensitization conducted in churches and to assess their sanitation facilities.

A weekend activity around children fetching water at a common water point in Z2.

Group Discussions

Group discussions to target under-represented groups like adolescents, women, and the elderly, were conducted to capture knowledge and opinions with regards to WASH provision in the community. The discussions were held at public community locations like schools or community halls.

The first activity of the discussion involved the participants in mapping their movements in the previous 24 hours to understand the extent of their movements and actions related to water and sanitation.

Participants were also asked about their sources of water and what influences their preference with regards to water options. The use of toilets and their access was part of the discussion including discussing types of measures that can be put in place to increase sensitization with regards to WASH in the communities. Typically, these discussions took a few hours!

Key Informant Interviews

The key informant interviews were conducted with key stakeholders who were identified during the stakeholders' discussion. These included health and other community staff or volunteers. The interviews were meant to gather comprehensive information about the communities and for stakeholders to highlight what, in their opinion, the major challenges are regarding WASH. Typically, these lasted an hour and at the end of the interview, the participants were asked to suggest what type of interventions would work in the communities.

Reflections on using BBS in Zambia related to WASH

The BBS approach was a useful tool in assessing WASH infrastructure in the two communities in Lusaka, Zambia. This case study used Focus Group Discussions (FGDs) comprising of 12-16 community members, Key Informant Interviews (KIIs), In-depth Interviews (IDIs) and structured timed observations at water points, churches, entry/exit points to the community, markets, and clinics to develop an assessment of the history, type, usage, and quality of WASH infrastructure. The approach allowed researchers to gain comprehensive information about the community within a short period of time.

- The stakeholders' group discussion was the first step in the sequence of activities after obtaining consent from the community leaders. This meeting helped researchers to gather information about the status of WASH in the communities from the different community stakeholders, including the local WASH authorities.
- The map was drawn during the first discussion which provided information about where in the community the infrastructure was situated and how it was distributed. For example, in C we learnt that the communal water kiosks are distributed according to population density.
- Initial meetings also gave an in-depth understanding of who controls access to the formal water sources and what alternative water options exist within the community.
- Stakeholders were also able to paint a clear picture of the different areas in the community that they considered potential 'hotspots' for water borne diseases and other water-related problems.
- The map drawn by the stakeholders was used to guide observations of the different WASH infrastructure points.
- During the timed observations, the water score card was completed to assess the different WASH infrastructure for a specific period, giving more information about the methods of water collection, the distance covered from the household to the water point, and the users' opinions about the water and sanitation facilities. For example, in K we were able to interact with young adolescents who push water drums and their views about who should be responsible for collecting water.

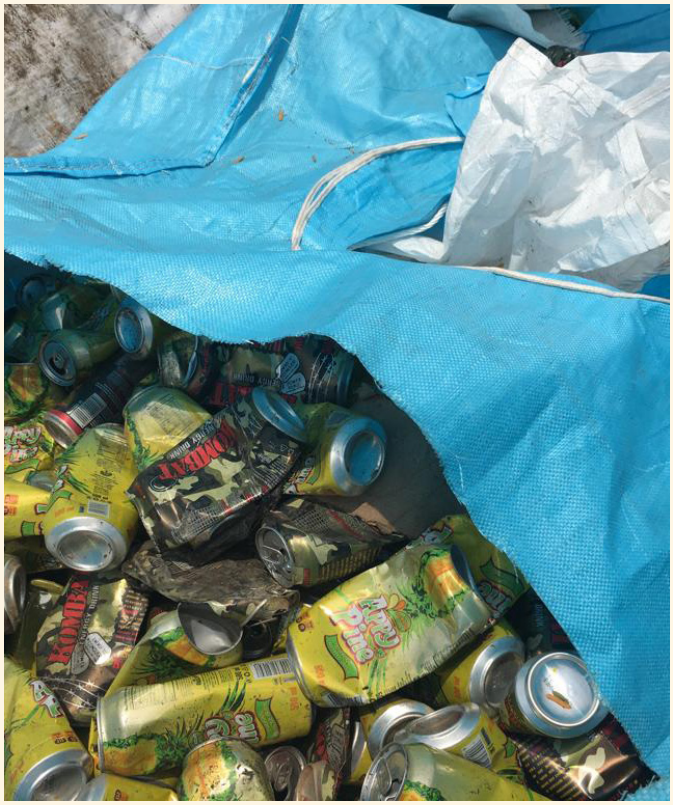
- The group discussions, particularly with different gender groups, provided an understanding of the use of informal sources of water in C and the sharing of toilets in both C and K.
- Interactions with the residents through the discussions and interviews revealed stories about WASH in the communities including the history of water and sanitation, the challenges related to WASH, and what residents thought could be improved.
- A final dissemination event was conducted to brief the community and government leaders on the findings. After this dissemination, further interviews validated the results with community members.
- The outputs included: a long narrative report on each community, a matrix report on each community, a poster summarising the BBS findings on each community, one academic manuscript.

Conclusion

Although engineering research is typically focused on technical aspects of infrastructure related to WASH, this approach can lack understanding of local context, how community services are organised, and the networks formed as a result. Using the BBS approach alongside an engineering evaluation for this case study enabled a better-informed understanding of the WASH dynamics in both communities and through community participation, how best a given intervention could work. This multidisciplinary approach also helped us to see the similarities and differences between the two communities, and how WASH solutions need to be adapted to the community context for interventions to be successful.

Solid waste management value chain in Z2

Solid waste management value chain in Z2



Solid waste management value chain in Z2

Solid waste management value chain in Z2

References and Resources

United Nations (UN) 2022. Water Facts. Available at : https://www.unwater.org/water-facts/water-sanitation-and-hygiene

World Health Organization (WHO). 1997. Guidelines for drinking-water quality, Second Edition, Volume 3, Surveillance and Control of Community Supplies, https://apps.who.int/iris/handle/10665/42002

Chapter 6: Reporting, sharing and disseminating the findings

Chapter 6: Reporting, sharing and disseminating the findings

This chapter covers:

- Different formats for disseminating findings from BBS
- Examples of dissemination reports
- Research dissemination platforms
- Ethical considerations for reporting BBS findings
- Everything you need to know to be able to share your research findings using the BBS approach.

Introduction

Using the four meta-indicators as the foundational framework to design, prepare for, collect and manage data during the BBS approach, this chapter illustrates how the same structure is used to disseminate research findings to different audiences and on varied platforms. In this chapter we provide guidance to create the final community profile reports in different formats, as well as other output documents.

How do we share our findings?

Scientists have noted that while resources are often invested in the research process, only a fraction of research findings are appropriately translated and disseminated to impact practice and policy and benefit affected communities (Tabak et al, 2012). Many community members have stories about meeting researchers, helping them to set up a study in the community, taking part in group discussions and interviews and then, once the research is over, never hearing from the research team again!

The BBS approach is participatory, practical, pragmatic and produces useful material. By using the BBS method, researchers have the benefit of building a detailed report and map as the study progresses.

Researchers can create different reports with varying levels of detail, based

on the needs of different audiences. For example, comprehensive community profile narrative reports can be produced to provide rapid feedback to researchers, programmers and implementers of interventions based on the community profile reports created during data collection. These community profile reports usually require more time and input after fieldwork in order to provide a detailed overview of the communities, the methods, and the issue being investigated.

In addition to written community profile reports, the BBS process requires that researchers provide feedback to those who have been involved in the study, including participants, stakeholders and study partners.

As the BBS approach has been established as a rigorous and systematic research method, researchers also have the opportunity to contribute to the academic world – both in terms of academic manuscripts and presentations or papers at academic meetings such as conferences.

We propose that there are five central outputs that should be produced from implementing the BBS approach:

1. Built and mostly written during data collection, a detailed community profile **narrative report** of the place, summarising all data collected.
2. A detailed **community map**, also created and refined during data collection.
3. A short **summative report** after data collection completion for each community or place. These reports describe the community in a nutshell, distil the meta-indicators findings and apply them to the research/ intervention topic, and often end up being the most useful.
4. A **comparative cross community (and country) report**, if data is collected in more than one place.
5. **Reporting visuals** that can be used to disseminate findings from data collection.

There are also additional reporting outputs (such as a matrix report, power point presentations, and a policy brief) that can be considered, depending on project requirements. The following table summarises key and possible BBS community profile reports and outputs.

Key BBS Community Profile Reports

Report format	Description
Narrative report	A detailed description of the research community using the meta-indicators as guidelines. The report is mostly created by the graduate social scientist/s, who conduct BBS fieldwork, in a step-by-step process as part of data collection. Soon after data collection this narrative is finalised, with support from the lead social scientist.
Detailed map	A detailed visual description of the research community, indicating key features. The map is created in a step-by-step process as part of data collection by the social scientist who conducts BBS fieldwork. This map can have meta-indicator detail (general & specific) represented in interactive layers.
Short summative report	The community in a nutshell – a short easily digestible report summarising key features of the community relevant to the research/intervention topic by using the meta-indicators. This can be presented in different formats e.g. a large poster, a flyer, a short A4 report. This can also be translated.
Comparative technical report	A report detailing the findings across communities (if more than one place is included in the study). The includes key meta-indicator detail that are similar, notable differences between the places, and specific aspects that are relevant to the research/intervention. This is sometimes referred to as a technical report, required by the funder.
Reporting visuals	Printed visual outputs with key information about the community, structured around the meta-indicators and highlighting key findings, used for dissemination to stakeholders and at community presentations.

Additional reporting formats

Report format	Description
Data matrix	A summary of data collected in each study community, in a two-page table format. This can be structured around the meta-indicators or just focus on the research/intervention topic, with recommendations for key findings in a right-hand column.
Policy brief	A short descriptive of key lessons and recommendations from the findings, as requested by policy makers.
Academic manuscript for publication	An academic article structured according to journal specifications.
PowerPoint presentation	A community specific or cross-community/country summary of BBS findings in PowerPoint for specific audiences (e.g. annual research study meetings, conferences). This should build on reports (and not be constructed ahead of reports).
Poster presentation	A community specific or cross-community/country summary of BBS findings either for community stakeholders or for a conference.

Overview of different reports

Below we provide an overview of each of the different reporting forms, including the format, the purpose and when each form should be considered. Researchers should ensure that reports are created in a systematic way to make comparison across places easier. The templates and examples are provided to guide researchers through the process.

The Narrative Report

Note: The steps involved in building and writing the narrative report is described in Chapter 3 (Data collection).

What is it?

The long narrative report is key to the data collection process and includes a detailed description of the community, referring to the meta-indicators and relating the meta-indicators to the key research questions. The narrative report is created and expanded, as data collection is done and includes desktop data collected prior to fieldwork. It includes a summary of all the data collected (e.g., number of interviews, participants and observations), photos, and a detailed profile of the place. The report varies between 10 and 25 pages per place. At this point, the narrative report is an overview of a given place and does not entail theoretical contributions or consideration.

What is the purpose, where can it be used, and who will read it?

The narrative report presents a detailed profile on the community, including key aspects related to the research questions. It is used as the base for subsequent reports or presentations (either short or comparative reports) where researchers are required to condense, summarise or elicit key points from the narrative reports for select audiences. Although the report is not often shared widely (partners and stakeholders may not have time or capacity to read such detailed reports), the narrative reports are a vital first step to creating further reports for dissemination. In our experience, these reports are also useful to share with research, funder or intervention team members who have a particular interest in one community or who are visiting a community.

What information is included?

Generally, the narrative report includes:

- A detailed description of the research community using the meta-indicators as guidelines.
- A summary of the data collected (number of interviews, participants, observations), including quotes from group or individual interviews.
- A description of data collected, structured according to the meta-indicator framework.
- Photos taken during observations, photos of activities, maps, illustrations.

A template of the narrative report is provided in the Appendix.

A detailed Community Map

Note: Creating and building the detailed community map is described in Chapter 3 (Data collection) and in detail in the Appendix.

What is it?

The detailed community map is a visual representation of the community, created as data is collected. This includes an outline of the community (may be created in Microsoft PowerPoint- see Appendix) from an online map, with community borders, key landmarks and infrastructure indicated. As more data is collected, more notes of information are added to the community map. This includes details, colour-coded for clarity, pertaining to the meta-indicators – physical features (grey/green/blue), social organisation (purple), networks (yellow), narratives (red).

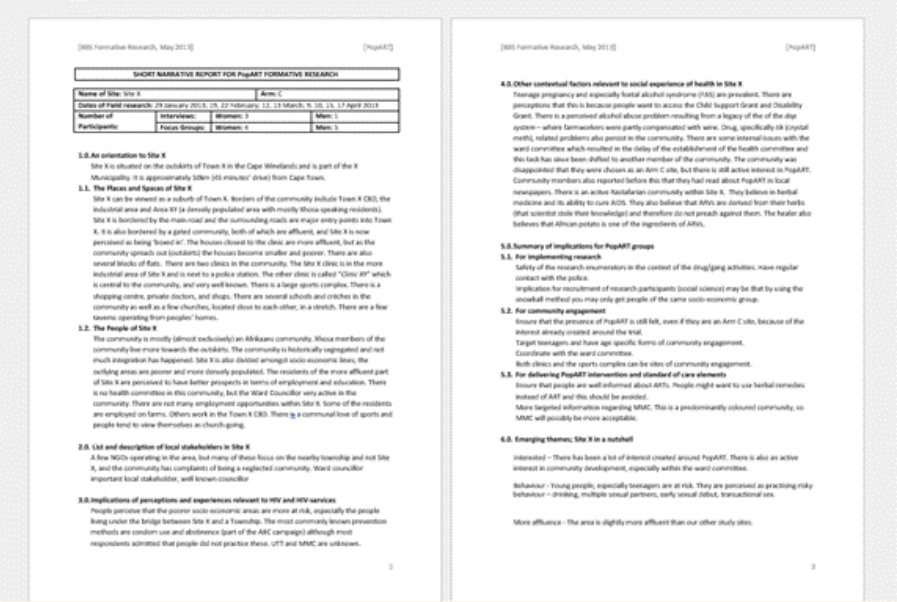
What is the purpose, where can it be used, and who will read it?

The detailed community map is a visual detailed summary of what is known about the community from information prior to fieldwork and from data collected in the field (observations, transect walk and input from participants during interviews and group discussions). The detailed map can be used to inform short summative reports and to share a visual representation of the findings with relevant stakeholders.

What information is included?

- Community borders and main transport routes
- Landmarks and key infrastructure (e.g., parks, health facilities, markets), especially relating to the research question
- Photos "zooming in" to key points/features of the community (optional)
- Colour coded blocks containing data related to the four meta-indicators (both general and specific; lighter and darker shades can be used to convey general and specific)

Short Summative Report



Example of a short report

What is it?

The short report is a two to three page report with key information on the community and a summary of the findings related to the research question. This is the community in a nutshell, and it is a key document when communicating findings to stakeholders. In the summative reports, researchers use the long narrative reports as a starting point and reduce the content to highlight the most notable features and key findings of the place of relevance to the research/intervention. In our experience, this is the report that is mostly widely read and useful.

What is the purpose, where can it be used, and who will read it?

The purpose of the summative report is to convey key findings about the community in an accessible and easily digestible report. It is shared with the community. It can be shared with stakeholders, participants, research partners, and others who have an interest in the study findings or those interested in getting a sense of how the community context shapes how the research topic is experienced or the intervention is delivered and responded to.

What information is included?

In the summative report, researchers include a brief overview of the data collected in this community, including number of participants and number of observations. Key findings are then usually structured around the four meta-indicators, highlighting features relevant to the research question. Sometimes a map and visuals (photos, drawn characters or features) are included.

The Comparative Report

What is it?

One of the key benefits of the BBS approach is the systematic collection of data across places. As the process is replicated across communities and data organised according to the four meta-indicators (physical features,

social organisation, networks, and narratives) researchers are able to draw comparisons, highlighting similar features or pointing out key differences between places. The comparative report draws on both the longer and shorted narrative reports. There is also space in the report for drawing conclusions about the differences between the places and how community features interact in different ways with the research question. The report is generally 6 – 10 pages, depending on the number of communities being compared.

What is the purpose, where can it be used, and who will read it?

The purpose of the comparative report is to convey the differences and similarities between the different communities included in the study. This detailed report can be shared with research partners and study implementers, policy makers and planners. If a technical report is required by the funder, this comparative report constitutes a technical report.

What information is included?

The comparative report includes sections on data collection, context, maps, findings across the four meta-indicators where similarities and differences are highlighted, and a concluding section. Photos and maps are used throughout the report.

Reporting Visual

What is it?

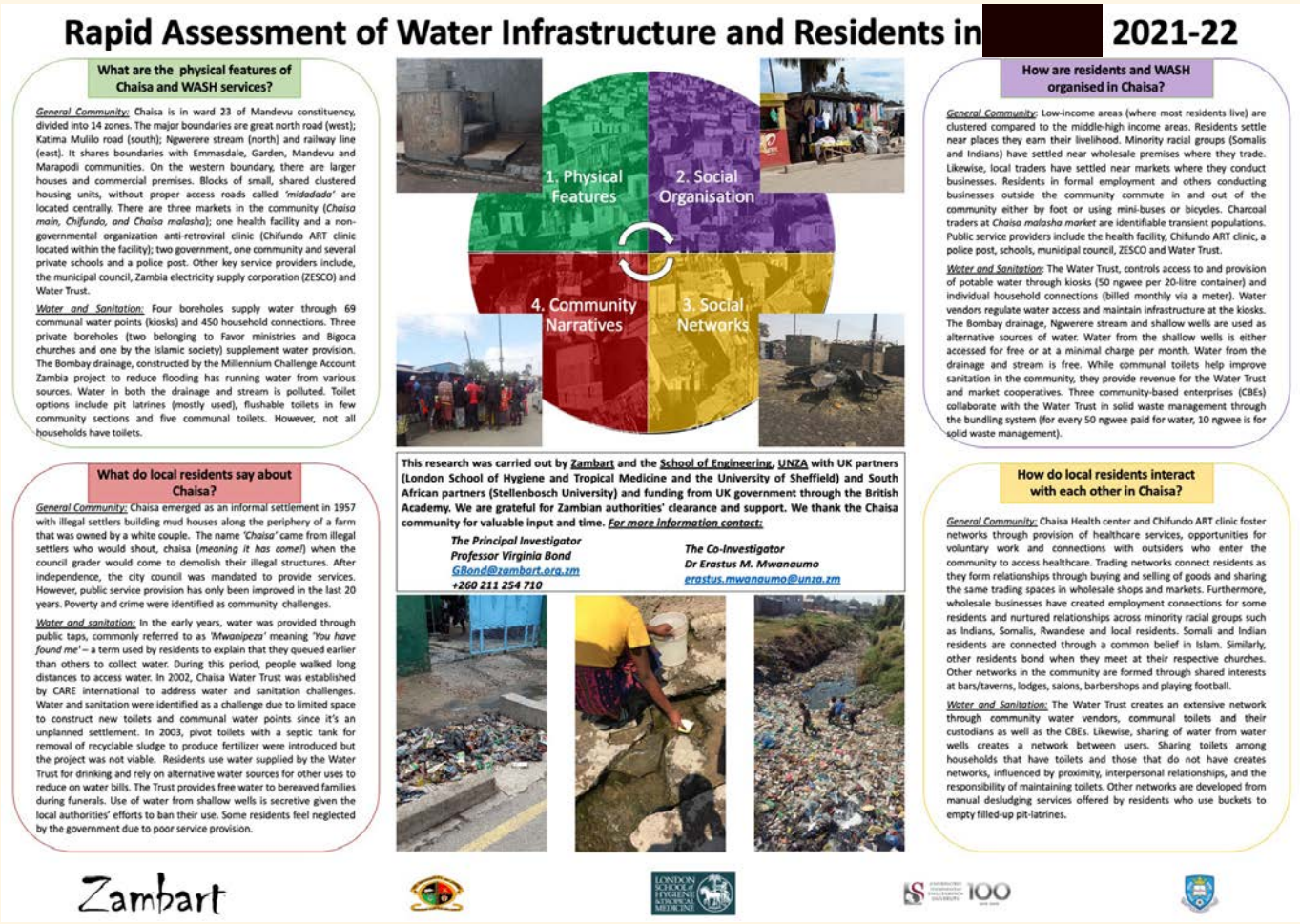
A poster or other visual representation of key findings can be created for each community. The colourful and concise output should be created on one page and include relevant findings, organised according to the four meta-indicators. The meta-indicators should be colour coordinated for ease of reference. Posters should be printed in colour and big enough to ensure that audiences are able to read the details included - preferably size A0. The visual should include photos taken during data collection.

What is the purpose, where can it be used, and who will read it?

The visual outputs are based on the short summative reports and are used primarily during data dissemination to participants and other community stakeholders.

What information is included?

The visual data presentation will contain much of the data used in the summative reports, although no information related to data collection is included. Findings are pasted in four blocks, reflecting the four meta-indicators. A fifth block is included to represent recommendations or overall key points related to the research questions.



Example of Reporting Visual (taken back to the community)

The Academic Manuscript

As we have demonstrated, the BBS approach involves both a rigorous and systematic process to collection of high quality data. Therefore, the findings from BBS can be published in peer-reviewed journals or can be used to complete post-graduate research theses. When producing journal articles, researchers should be mindful of the journal guidelines, scope, and publication criteria.

The following publication should be recognised and included in your references list to support the BBS approach:

Bond, V., Ngwenya, F., Murray, E., Ngwenya, N., Viljoen, L., Gumede, D., Bwalya, C., Mantantana, J., Hoddinott, G., Dodd, P.J. and Ayles, H., 2019. Value and limitations of broad brush surveys used in community-randomized trials in Southern Africa. *Qualitative health research*, 29(5), pp.700-718.

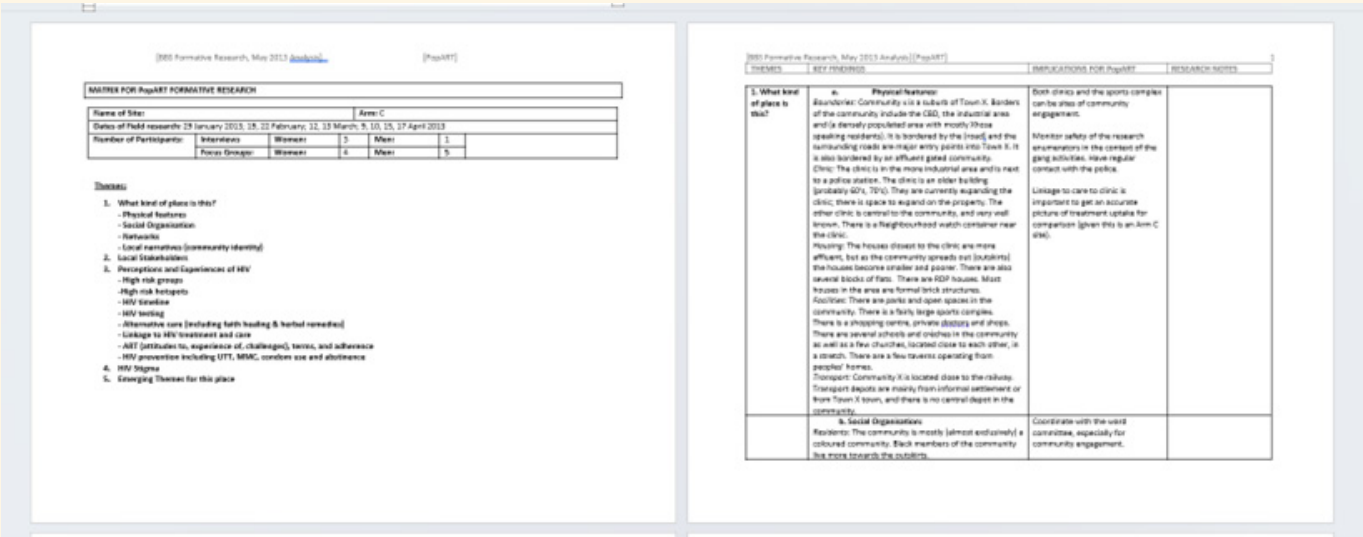
Other reporting formats outside the scope of this manual

The policy brief

A policy brief is not always produced as part of the BBS approach but might be required by (usually government) partners. The short (usually two page) document can be a useful platform to summarise key findings from the BBS process in order to inform policy makers and to suggest input for changes in guidelines/policies.

Matrix

A matrix is a simple way of displaying the research findings in a table format. It can be appealing because it is easy to understand and can be a useful tool for discussing results and planning future interventions. For example, BBS matrices of two communities that was presented to a district health management team linked to a HIV study was subsequently used by the district HIV taskforce to adjust HIV service delivery in the two communities.



Sample from a matrix

Theme	Findings	Recommendations
Social Organisation: Population Mobility	Very mobile population with porous boundaries. Many adults travel daily out of the community for work and trading. Many adults move through the community on a daily basis.	Health services should provide flexible opening hours and mobile outreach services could be planned.

Dissemination meetings

When and how?

In addition to creating written reports, data should be shared with those who were part of the research and knowledge production process and those who have a stake in where the knowledge/research will be used. Different versions of the research reports are often shared during dissemination events. For instance, the summative report might be shared with local government officials, like ward councillors, or the visual presentations could be used during community dissemination events. In the section below we describe these different dissemination events.

Community feedback

Community feedback involves the process of reporting back the main findings of the research to relevant community members and leaders who were involved in the research. Feedback sessions are pre-arranged at designated venues within the community, i.e., community hall, church hall, multipurpose centre, or participant's home. If a session is arranged at a community hall/ centre, all community members/leaders should agree to a suitable time and date to meet. In the event of not being able to meet with everyone at once, smaller group sessions can be arranged with community members in the comfort of their homes or other convenient locations.

What should be included in the feedback meeting?

Ideally the feedback meeting should be as participatory as possible (in the spirit of BBS activities) with an aim of finding out what the community thinks of the findings: *Do they ring true? Is this what is happening in our community? What does this mean for us?*

The meeting can start with introductions so that everyone knows who is in the room. It also helps community members to feel more able to contribute in the meeting if they have already introduced themselves.

A presentation (on PowerPoint if electricity allows) can be prepared, that includes background of the study; permission and ethics to conduct the study; main findings under each meta-indicator; study recommendations and future plans. Alternatively, key findings can be represented on flip-chart paper prepared before the meeting.

This can be followed by an open discussion that involves questions and clarifications, followed by shared reflections from the community, about the findings. These may be recorded and added to the narrative report after the meeting.

If BBS is applied as a formative research approach with clear intentions of an intervention study to follow, more can be said about the intervention study and how BBS is used to describe the community related to the intervention issue. Ideas from the community about implementing the intervention, in light of the BBS findings can be a valuable output from the feedback meeting, and should be included in planning for the next steps.

The short narrative report is distributed at this meeting. This can be illustrated and translated, and in a flyer format if more appropriate and if the study budget can support this output. It is important to leave a written output with the community members attending the meeting.

When is this dissemination event held?

The events should be planned to take place after community-level outputs have been prepared and finalised, i.e., the narrative report, the community map, and the summative report/reporting visual/matrix. This meeting is held BEFORE sharing BBS findings with other stakeholders more publicly. Other study team members may have read and commented on drafts of the short narrative report ahead of this interaction.

Stakeholder feedback

Stakeholder feedback involves the process of explaining the methodological approach and reporting back the main findings of the research to various stakeholders, including government-level stakeholders, researchers/ academics, and NGOs. Feedback sessions are pre-arranged at designated venues. These sessions can also be conducted online . All stakeholders should be informed via email or telephone regarding the time and date of the session. It is prudent to ensure that the most important or relevant stakeholders can attend and that a suitable time and date is selected well in advance.

What should be included in your presentation?

A stakeholder presentation provides the opportunity to convey and explain the BBS approach, its relevance to community research and its application to a research topic. BBS is generally applied in interdisciplinary research contexts and the presentation can include an explanation on how to implement this approach keeping in mind different training backgrounds.

A PowerPoint presentation should cover the following:

- Overview of BBS method and meta-indicators framework
- Study background, aim and objectives
- Selection of study communities and permission
- BBS methods and data collection/fieldwork
- Research findings
- Recommendations
- Feedback from the community disseminations
- Research outputs
- Future plans

The presentation can be followed by an open discussion, questions and clarifications. There is also an opportunity to find out what the stakeholders think about the findings. You could use small group discussions to ask for feedback, by asking some key questions: *What stood out for you from the findings? Were there any surprises? How can these findings inform future programs and interventions?*

When is this dissemination event held?

The stakeholder dissemination event(s) follows the community feedback sessions. This allows the opportunity to report to stakeholders whether there is any new information or clarifications regarding certain issues that was unclear during data collection, and to ensure that the necessary ethical obligations were met to inform study communities about the findings.

Other dissemination opportunities outside the scope of this manual

Conferences

As data collected using the BBS approach is rigorous and academically sound, findings can be disseminated at national or international conferences through oral or poster presentations. Researchers should use the guidelines provided by the conference.

Ethical considerations for reporting on findings from BBS

The BBS approach is used to rapidly collect data in specific communities using the four meta-indicators framework. While the reports are created to represent an overview of the community, the people, and the social structures in a place, it is important to remember that these reports are timed snapshots of a place. Therefore, the findings (and the reports where they are described) are neither predictive nor a reflection of the place for all time going forward.

One way of acknowledging this, given these specifications, is that all reports should be saved as PDF documents to avoid future editing and should be clearly dated.

At community level, the community name should be retained in a report output. However, no individuals or individual places should be named and should be de-identified. For example, the name of a bar, the name of a key informant. Likewise, within country, the names of the communities in district and other national presentations can be retained with care taken to reflect on any detail that could have social harms. For example, detail on clandestine activities would be vague e.g. gang presence, recreational drug transactions, sex work transactions would not be detailed and linked to a specific place

within the community but can be noted/included as a feature of this community.

As explained in Chapter 2, photographs should have appropriate consent. The type of consent may vary across countries and institutions. International ethics regulations often stipulate that any photographs where a person is identifiable should be accompanied by written voluntary consent. The information sheet and the consent should explain the use of photos. Likewise, content of reports should adhere to community consent, verbal consent and written consent processes and content.

Outside of the country, the names of the communities that were part of BBS should be excluded and replaced with codes e.g. Z1, SA12. If part of a community-randomised trial, there are often trial codes for each community that BBS outputs (e.g. academic manuscripts, conference presentations, study meeting presentations) can use.

As already mentioned in Chapter 4, BBS reports should not be part of national or international data depositories but should be kept by the in-country research institution in a secure server, and any requests to access the reports should be asked of these institutions.

References and Resources

Tabak, R.G., Khoong, E.C., Chambers, D.A. and Brownson, R.C., 2012. Bridging research and practice: models for dissemination and implementation research. *American journal of preventive medicine*, 43(3), pp.337-350.

Appendices

Appendix 1: Guide to Meta Indicators

'Material fabric of the local area'. **Visible, countable, mappable. Includes: housing types, other architectural features, employment & work options, physical boundaries, topography (bird's eye view).**

What could happen here?

What are the features of particular relevance to the problem?

'Relation of people to place'. **The organisation of people in the place, across housing, work, mobility (access to transport, movement in/out of community). Characteristics of population diversity, age, ethnicity, family structure, socio-economic status.**

How are people organised in this place?

How are people organised in relation to the problem?

'What do people say about this place?' **Oral history (origin, style), identify with the place, commitment to the place (chosen/no choice), blaming patterns, butt of gossip.**

What kind of place is this in local narratives?

What are people's opinions about the problem?

'Relation of people to people in this place' **Links between people and groups. Patterns of interaction for example ethnic/local, chosen/ascribed. Extensive/intensive networks. Bonding/bridging social capital. Flexible/fixed network boundaries. Networks of services (formal and informal).**

What are the patterns of interaction between people within and outside of the community?

What networks are relevant and active for the problem?

Appendix 2: Desktop research Guide

Community 1:

Describe location/size in hectares of community within broader city/town:

Neighbourhoods/areas in the community:

Table 1: Community descriptions of potential study areas in:

Community/Neighbourhood

Political boundary/ward number

Ground area (ha)

Adjacent/neighbouring communities

Year established

Population size/growth

Households

E.g., 436 - 550 structures (2 - 3 average household size)

Demographic Profile

Race

Ethnicity

Religion

Culture

Household and local services and resources provided by governments/private sectors

Roads/pavements infrastructure, toilets, water standpipes/ points, electricity, schools, waste collection, hospital/ clinic, fire station, police station

Socio-economic characteristics

E.g. No. of children
Informal businesses

Land utilisation

E.g. Cattle grazing /Growing and harvesting medicinal plants / Recreational and initiation rites

Identified issues

E.g. Fires / Flooding / Crime / Lack of electricity / Poor environmental health related to sanitation: Illegal dumping

Key stakeholders Community leader:

NGO / Ward councillor / Government department(s)
(Include names and contact details)

References

Census data / Government reports (websites) / Research publications and reports / Maps / Wikipedia / News articles

Age Profile

0-4 years

5-14 years

15-24 years

25-64 years

65 years+

Education:

No education / Primary education / Some secondary education / Grade 12 / Tertiary education

Economic profile:
Average wages / Unemployment rate / Informal/seasonal/ infrequent work

Dwelling/housing profile:
Formal (constructed) / Informal (shacks)

Household services profile
Water/ sanitation

Geographic topography
Landscape, ground types, water/river terrains, landforms such as hills mountains, vegetation, elevation, glaciers, slopes, inclines, forests

Appendix 3: Template of community profile report

Cover Page: Project Title, BBS, Date of Fieldwork, In-country Research Team + PI, Photo of BBS Fieldwork

Page 1: Tables listing activities conducted, including dates of fieldwork [partially filled in to illustrate]

		Number of participants		
Activity name	**Date**	**Women**	**Men**	**Total**
e.g. In-depth interview	20210610	1	0	1
e.g. Group discussion	20210611	4	5	9

Activity name	**Date**
e.g. Household observation	20210610
e.g. Transect walk	20210611

Page 2-5 (1 page per meta-indicator): Use the four meta-indicators to describe community. Separately, but on the same page as the description of the community, use the four meta-indicators to describe [public health issue/study topic] in the community.

Page 2 – Physical features of the community

Physical boundaries and terrain: Neighbourhoods within the community, entry/exit points, boundary features (what lies on the boundaries), roads/paths.

Architectural and housing structures: Housing types (size, building material, density), facilities including health facilities (government, private), schools, markets/shops, transport depots, NGOs, churches.

Economic options: Formal and informal employment options.

Population: Diversity (mix of groups/classes), ethnicity, age, class, size.

Physical features of [public health issue/study topic] in the community: Water supply points, sanitation infrastructure.

Page 3 – Social organisation between local residents and the place

Population across housing & work: Type of population living in different neighbourhoods and types of houses, type of population involved in different types of work

Access to transport and local services e.g. transport options and use, government, NGO and community-based services (excluding water and sanitation)

Population movement in and out: Daily mobility, seasonal mobility, more erratic mobility patterns. Where (within, outside), why and when people are moving.

Social organisation of [public health issue/study topic] in the community: Who uses which water and sanitation services, how peoples movement is linked to water and sanitation

Page 4 – Networks between people in the community

How are people connected to each other in this place? Are networks tightly organised or are they more flexible and open to outsiders? Or does it vary according to the network? Are there networks that are extensive (many people, reach beyond the community)? Is social capital bonding (tight, looking inward, protective) or bridging (open to outsiders)?

How do networks relate to women, men, young people, local power structures, school, religion?

Who controls resources in this place?

Networks of [public health issue/study topic] amongst people in this community: How are residents linked by water and sanitation service networks, who controls particular water and sanitation networks.

Page 5 – Narratives about the community and people who live there

Moral community, oral history, myths of origin, local style, commitment to this place, identification with being local, who is the butt of gossip/ who is blamed for disease and misfortune?

Narratives about [public health issue/study topic] in this community: What is the history to these services, who is to blame for problems with the services?

Appendix 4: Example of BBS 5 Day Fieldwork Schedule – TREATS-COVID 2021, Zambia

The highlighted tools are included in this appendix, and mostly include the observation tools as well as one opening group discussion with community representatives. Other tools are not included since they will be tailored and/or added specifically for the research topic.

Day	Activity	Tools required
All days	• BBS Key Purpose & All Activities	• Overall BBS Design & Guidelines for specific research
One	• Group Discussion with Neighbourhood Health Committee (NHC) and Community Advisory Board (CAB) (morning)	• NHC/CAB Interview Guide
	• Transect Walk in the Community (afternoon)	• Day 1 and 2 Guide for Spiral Transect Walk • Transect Walk Observation Checklist • Transect Walk Activity Report Form • TB Transmission Score Card • Global Position Satellite Tracking Sheet • First Impression Activity Report Form
Two	• Transect Walk continues (whole day)	
Three	• Structured Observations • Entry/exit points (transport depot and other places of relevance)	• Transport Depot Observation Guide • Transport Depot Data Capture Sheet • Daily Time Charts • Diagnostic Centre Data Capture Sheet • Observations of the Health Facility Activity Report Form • Activity Report Forms for Structured Observations of Significant Events and Weekend/Night observations
Four	• Structured Observations (health facilities and other places of relevance, night observation)	
Five	• Structured Observations of markets and churches (weekend) • Group Discussion with mixed age and gender (men and women separate)	• Activity Report Form for Structured Observations • Men/Women Group Discussion Guide

Appendix 5: Focus Group Discussion Guide Template

Community Representatives Discussion Guide

Time: Two hours maximum

Objectives:

- To use a brief presentation on *[study topic]* to start the discussion (following a deliberative FGD approach)
- To document the local key opinion leaders and community representatives' understanding and experiences of *[study topic]*
- To map *[study topic]* points and gathering places used by *[study participants, e.g. women and girls]*, identifying a route for a transect walk and structured observation
- To understand local experiences of accessing the local *[health/education/etc. facility]* for *[...]* services

Participants: 12-15 local community leaders representing different interest groups and men and women and different ages in the community.

Venue: Community venue that offers privacy (free of distractions). A meeting place that is open will be selected if possible. Chairs in a semi-circle

Roles: One researcher facilitates the meeting while the other researcher makes notes of the conversation. LFWs are present to help to clarify references made to places and local particularities, but do not give input of their local knowledge nor assist in facilitation.

Materials: Study topic presentation; Map of the community (basic or draw at beginning) Flipchart; Coloured cards; Marker Pens; Scissors; Masking Tape; Facilitator Notebook Pens, Consent forms; Information sheets; batteries; Digital recorder; GPS device

Preparations: All researchers should be familiar with the FGD guide and have participated in community entry processes.

General

- Drinks and snacks for the participants and facilitators.
- Form to record participant details
- Flipchart stuck on walls
- Flipchart pre-drawn for the intervention discussion
- Coloured cards cut up and ready to use
- Sticky stuff ready to use
- Cards with natural numbers on them to use as identity during discussion i.e. as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12

Procedures:

Participant characteristics

As you wait for participants to arrive, one facilitator should talk to each participant , explain why they are collecting the data and record the following: **Participant number, Age, Sex, and Marital Status, number of children, source of income, religion, length of time resident in site, and phone number or address.**

Please note this should be done by the facilitator, not filled in by participants themselves. This should be done before the introduction, with the exception of latecomers.

Introduction [15 minutes]

"We have selected all of you to represent your community here as we really value what you as the leaders can share with us about your experiences of [insert study topic]. This information will help us to plan and develop an intervention/ policy guidelines for [insert area of interest, e.g., disease] in this community. Although we will not be providing money, we will be providing a drink and a snack during the discussion."

Administer information sheet and informed consent.

Explain the following:

- Ask: Which language are you most comfortable using?
- This will be a two hour (or less) activity.
- We want it to be as participatory as possible. We want to hear your views. There are no right or wrong answers.
- Please feel free to give your ideas and also give a chance to everyone to speak.
- You may have different ideas from others – that's okay – we want to hear them.
- Any question you feel uncomfortable about, please feel free not to answer it.
- Your names will be kept confidential – when we write up the discussion, we never use people's real names.
- We will be happy to answer any questions you have at the end of the discussion
- Please put your cell phones on silent if possible
- Is it ok with you if we start the discussion?

Note: record the time the activity starts

1. Presentation on [insert study topic]

"We will start this discussion by first showing you a brief presentation on [insert study topic]. This will take 10 minutes. If you have any questions on the presentation, please ask them at the end. Also please note that one of the facilitators is an expert in this topic so they can answer your questions."

Presentation followed by questions (20 minutes)

2. Community mapping exercise

Time: 30 mins

Stick a large sheet of paper to the wall or spread out on a table (3 or 4 flipcharts stuck together).

Have lots of markers/pens/crayons available.

Also have small cards or post-it notes to stick on the map.

Ask the group to draw a map of the community, indicating all the sites where the main activities take place e.g. places of employment, markets, schools, clinics, places of worship, farming, other industries. Ask the group to include all the [study topic related] places and so on.

Ensure that everyone contributes.

[Study topic] Activities/Practices: Once the map is complete, ask the participants to work with a partner and think about the activities/practices that take place at the [study topic places]. Ask them to write each activity/practice on a card and stick it where it takes place e.g. [provide examples].

Who/ where/ when: Ask the pairs to think about who does these activities and what time they take place (e.g. early morning/ evening etc). Ask them to add these details to the map.

3. Questions (study topic 1)

Note: Adapt these questions according to the study focus. For example, 'Health issues in the community.

Time: 15 mins

- What are the common health problems affecting people in your community? List these on a flipchart
- Probe on study topic if not mentioned, and why they think so?
- Do you know what causes *[study topic]* and how is it transmitted?
- In your opinion, how serious is the *[study topic]* condition in this community? Probe for the severity, morbidity, disability and mortality
- Which groups of people are more at risk of contracting *[study topic]*? You can refer to the map if appropriate (e.g. who draws water here?)
- Probe: [different groups of people, e.g., older women, women of child bearing age, adolescents girls, students]
- Ask: Does anyone know about different types of *[study topic disease]*? What causes it/ how is it transmitted? (You can mention symptoms if participants are unaware- *[insert symptoms]*)
- Ask participants to discuss with the person next to them: What is the relationship between *[study topic and other health issues/diseases/illnesses]*?

4. Questions (study topic 1)

For example, 'Health services, treatment and stigma'

Time: 15 mins

Say to the group: *"Let us imagine that a [insert study interest group, e.g.,] young woman we know in this community (it could be a daughter, a sister, a niece, a friend) has some of the symptoms of [insert study topic disease/illness]. Let us call her.....(add local name). What might she do"*

- Would she/he/they tell anyone about the symptoms? Would she/he/they ask anyone for advice? Who might she/he/they go to? [You can refer to the map if someone mentions a clinic or a traditional healer or any other support place]
- If she/he/they goes to a traditional healer, what kind of treatment would she/he/they get?
- If she/he/they goes to the clinic, what might happen?
- Do the health workers here have enough information about [insert study topic disease/ illness]? Would they know to test her/him/them for this? Are there other diseases that they might consider first?
- What are the available health services for [insert study topic disease/ illness]? Do you think health facilities are adequately equipped in handling patients with [insert study topic disease/ illness] for treatment, If Not why? Probe: for availability of Equipment, personnel, incentives

What are the barriers faced by [insert study interest group] seeking health services for [insert study topic disease/ illness] and other related health issues?

How are [insert study interest group] with [insert study topic disease/ illness] treated in this community by others?

Probe: *"Would you say there is stigma around [insert study topic disease/ illness]? Why? Do some associate [insert study topic illness/ disease] with [insert related health issue]? Do different groups get treated differently? E.g. young women, older women, married women?"*

"What do you think should be done in the community to encourage [insert study interest group] to seek health care for [insert study topic illness/ disease] and [related health issue]? What can be done to reduce stigma?"

5. Community intervention/education

Time: 30 mins

Write up the question on flipcharts.

Prepare the table for question 2 on flipcharts for each group.

Type of intervention	Why?	Who should provide it?	Any challenges that there might be with this intervention?

Buzz pairs: Ask participants to find a partner and discuss: *"What do you think should be done so that [study interest group] can have access to services for [study topic illness/ disease]?"*

Ask each pair to share their ideas and record them on the flipchart.

Small groups: ask each pair to join with another pair and discuss: If the government or another organisation wanted to support your community with an intervention, what type of interventions do you think would work? Think about why you think it would work? Who should provide it? Are there any challenges to this intervention? Give each group a flipchart with the prepared table and ask the groups to fill it in and then share them with the big group.

6. Closing

"We have talked about many things, but if there is something you think we haven't discussed and would like to talk about please share?"

"Thank you very much for your participation"

Appendix 6: Transect Walk Guide and Observation Checklist

This transect walk will be conducted over a period of two half days. The first observation should be conducted from as early as 06:00 hours to lunch time while the second day observation should start from 14:00 hours and end at 18:00 hours.

Please make sure you record the following;

- Date, time and community observed
- Time of the day the observation started, and time taken and rough estimate of distance covered

Objectives:

- Collect GPS readings and observations of the range of gathering places
- Observe activities and movement of different age and gender groups
- Gain a rapid understanding of places of significance to the public health issue
- Identify places for timed structured observations during fieldwork

Research Assistant Roles: One RA to take GPS reading whilst other writes a description of the place. Both RAs to chat to local people during the transect walk.

Materials: Transect Spiral Guide, map of community with transect spiral plotted on (drawn by health committee), GPS, GPS Data Capture Sheet, Transect Walk Observation Guide, few sheets of A4 paper, notebook, pens.

Time of Activity: Afternoon of Day One and morning of Day Two.

Length of Activity: One afternoon and one morning.

Flow: Going in concentric circles from the health facility, through the hub of the communities.

At the start:

- Set off from a central place in the community (ideally a health centre) and move from there from place to place.
- The GPS receiver is to be switched on and left on during the entire walk so as to be able to view the route walked on the device's display screen. This is a "breadcrumb trail" called a Track Log.

During the walk

- Observe the places passed, noting conditions in different sub-areas and housing clusters, activities and movements of people and livelihood options.
- Ask others who they pass probing questions about the different housing clusters and important places in the area with regarding a particular public health issue/study topic. Make rough notes or sketches in the notebook.
- Look out for the types of places suggested by the Transect Walk List of Places i.e. health facilities, commercial premises, places of worship, recreational spaces, boundary landmarks, graveyard, etc (see Transect Walk Observation Checklist). Stop at each such place.

For each place (called a waypoint in GPS terms):

- Take an accurate GPS reading to verify in an unobstructed position. The waypoint number and coordinates are recorded on the GPS Data Capture Sheet.

- The type of place (selected from the Transect Walk Observation Checklist) and the name of this particular place (if applicable) are indicated for the waypoint.
- A description is given of: time (use time of GPS waypoint reading); type of gathering place; size of building; what people are doing; the approximate number of people; the age mix of people there.
- Assess whether the place is a possible observation point to return to on the following days.
- If people ask, explain that the team are doing this for the purposes of understanding the the community before a new public health related project/intervention Engage in brief informal conversation, making field notes afterwards.

Data Collected and Stored:

- Make a rough sketch of the transect walk on blank A4 paper, indicating all the places plotted and observed during the walk.
- Complete the Transect Walk Activity Report Form on the same days as carrying out the walks, describing the process and the findings (from notes made in the note book) as they relate to activities and mobility of people and perceptions of the public health intervention
- Record all the words for the public health issue (vernacular, English, slang, street language) that you have heard during this observation.
- Complete the GPS data capture sheet (tidy up, fill out).
- Store GPS and data collected.

Transect walk description observation checklist

Places

1 Health facility
- 1.1 Formal
- 1.2 Informal

2 Place of worship (what denomination?)

3 Recreational spaces
- 3.1 Library
- 3.2 Sports venue
- 3.3 Disco
- 3.4 Community hall
- 3.5 Video club
- 3.6 Other

4 Liquor outlet
- 4.1 Liquor store
- 4.2 Night club
- 4.3 Shebeen (informal)
- 4.4 Hotel / Guest House / Lodge
- 4.5 Bar
- 4.6 Tavern
- 4.7 Home Brewing
- 4.8 Other

5 Commercial Premises
- 5.1 Market area
- 5.2 Shop
- 5.3 Beauty salon / Barbershop
- 5.4 Other

6 Stations / stops
- 6.1 Bus
- 6.2 Mini Bus
- 6.3 Railway
- 6.4 Taxi

7 NGO

8 School

9 Residential housing (what type?)

10 Boundary landmark

11 Police Post / Station

12 Other (As suggested by local experts)

Transect Walk Activity Report Form

Time: **Location:**

Type of Place (see list of places above) Note: Type of place is dependent on what is relevant to the particular public health issue/study topic

Structure of building – large/small (estimate in metres); new/old; cramped/spacious; well ventilated/not well ventilated (explain why); Air Conditioner (AC): AC being used and present/not used or present; temporary/permanent; building materials – brick, concrete, grass, mud; etc.

People – busy/quiet; estimate number of men/women/children; estimate average age of children/youth/adults/elderly present

Activity – what is happening? (e.g. playing football, watching a video, waiting, drinking etc.). Also if there is an event (e.g. football match, fight, outreach education etc.) note this.

Relevance to particular public health issue – note or sketch briefly of particular relevance and write up in more detail later. Record all the words for particular public health intervention (vernacular, English, slang, street language) that you have heard during this observation

GPS data capture form

Time	GPS way point	GPS reading	Place	Name	Description	Observation point (e.g. Bar)
		S E				
		S E				
		S E				
		S E				
		S E				
		S E				
		S E				
		S E				
		S E				
		S E				

Appendix 7: Structured and Timed Observation Templates

Significant Events/Place Activity Report Form

This form can be used for observations of any significant place or event in the community as related to your public health study for example a cultural event, mobile service, or a drama activity

Date: **Location:**

Researcher:

Times (Actual time period, total time):

General Probes for observations of the place: what place(s) is this? Who is there? Gender mix. What activities are going on? What is the general atmosphere?

How did you hear about the event or place?

Observations specific to certain places e.g. public spaces, (who goes where, who is there, what are they doing?

People – what kind of people are there? Men/women/children. Age range. Local or from outside? Approximate number of people.

Relationships – interactions between people in event/place

Any interesting Conversations about particular public health issue?

Any other activities happening at the same time?

Terms used for public health in this place – record all the words (vernacular, English, slang, street language) that you heard during this observation

Detailed description of what took place – add sketch if it helps

Weekend/Night Observations Activity Report Form

This form can be used for observations of any significant place or event in the community as related to your public health study for example a cultural event, mobile service, or a drama activity

Date: **Location:**

Researcher:

Times (Actual time period, total time):

Bar: Who is there? Gender mix. Levels of alcohol consumption? What are people drinking? Any other activities going on – e.g. playing pool, dancing, watching football? How are men/women dressed? General atmosphere

Guest house (in bar) Who is there? What is going on? Conversations. Exchanges. Gender mix. Age range. Are condoms visible/available? Check out availability of rooms (e.g. are they rented by hour?)

Market General atmosphere. Look out for interactions between men and women, traders and customers. Are people hanging around, not buying things? Is there anyone drinking alcohol? Other activities?

Bus station General atmosphere. Interactions, exchanges. Gender mix. Greetings between men and women, gestures. Are people sleeping there? Is trading going on?

Shopping mall/parade Who's around? Interactions between men and women? Couples? How are people dressed? Are people hanging around?

Salon/barber shop Who is there? Gender. Age range. Conversations- what are people saying? Any talk about the particular public health issue?

Church/after church/choir practice People – gender. Age range. Local? Messages in the sermon? Relationships between people? Any services offered? After the service – interactions on the walk home. Choir practice – interactions between men and women.

Other places: describe place and activities

Terms used for public health in this place – record all the words (vernacular, English, slang, street language) that you heard during this observation

Guide for Transport Depot Observation at Entry/Exit Points

Objectives: Indication of the movement of people – women, men and children – in and out of the community.

RA Roles: Work together at the same transport depot – one RA counts and records people coming in whilst the other records people going out. No conversations are held during this observation as focus on the counting of people is to be sustained for the entire observation period. Both make additional observations of minibuses.

Time of Activity: Morning 6-8am; Evening 17-18.30 hours.

Length of Activity: Three and a half hours.

Venue: Most central and busiest transport dept area from which they are able to view people boarding and alighting from vehicles as best as possible. This is often a bus depot but can also be a major entry/exit area (e.g. a bridge).

Flow:

The Transport Depot Data Capture Sheets consist of four forms to record:

- people coming in the morning
- people going in the morning
- people coming in the evening
- People going in the evening

For the entire period of the observation, count and record the number of people coming per age and gender category (i.e. men and women, youths under 20, between 20 and 35, between 35 and 50, over 50, babies and children under 12) OR count and record those going.

Record numbers in digits OR use ticks or use convention of making four vertical strokes crossed by one horizontal stroke for every five people. If there are many people leaving and coming, estimates can be made in terms of tens or hundreds as appropriate.

At the end of the observation period, count the strokes/ticks/numbers and indicate the total number.

Once this exercise is completed, make additional observations based on informal conversations of where people are heading to, for what reason and when they mostly return (i.e. at lunch, in the evening, after two weeks). Ask about migration patterns in the community and whether these are seasonal or year round.

Observations particular to the research issue e.g. for COVID-19, observations of handwashing facilities, mask-wearing, social distancing etc.

Data Collected and Stored:

- Completed Transport Depot Data Capture Sheets
- Notes transferred to Transport Depot Activity Report Form

Transport depot activity report form

Date: **Location:**

Researcher:

Times (Actual time period, total time):

General observations of transport depot and movement of people in and out of the community: local/ not local; type of transport; age and sex:

Local perception of migration: daily, weekly, other – reasons for, where to and which groups

Local perceptions of travelling out of and into the community for treatment for the public health issue

Record all the words for the public health issue/study topic (vernacular, English, slang, street language) that you have heard during this observation

Any other observations of relevance: add a sketch if it helps

Transport Depot Data Capture Sheet

Site:

Entry/exit point:

Time: **Date (Day of week/dd/mm/yyyy):**

Research assistant:

Local field worker:

Two research staff insert one tick for each category of person to arrive at a rough estimate of people coming in and going out from transport depot/hub. The staff should position themselves strategically to observe the flow.

Coming in	Morning (6.00 – 8.30)	Evening (17.00 – 19.00)	Total
Men			
Under 20			
20 - 35			
Above 35			
Women			
Under 20			
20 - 35			
Above 35			
Babies and small children			

Clinic Observation Activity Report Form

Date: **Location:**

Researcher:

Times (Actual time period, total time):

Observation of Place/Space including: type of place and use of space; what people are there (ages, gender, local/not local); body language; posters/other visuals; activities during the day; movement of clients and staff; interactions between clients and staff; activities; gossip (use an extra piece of paper to sketch a map)

Any information on alternative treatment options, costs, waiting time: (for ART clinic, checklist will provide some of this detail)

Record any words/phrases you have heard people use to talk about the public health issue: (English, slang, vernacular, street etc...)

Any additional observations of relevance:

Clinic observations check list Health Facility Data Capture Sheet

Site:

Health centre:

Date: **Times** (Actual time period, total time):

Researcher:

Question	Responses (Circle responses for up to 16 participants)															
1. Who is the patient?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Woman	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Child	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Man	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2. Where are you normally resident	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Outside this place	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
If yes: Kin in this place?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
This place	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
If yes: Born here	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
If yes: Permanent resident	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
If yes: Temporary resident	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
3. How did you get here?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
On foot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Bus/taxi	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Bicycle	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Carried/wheelbarrow	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4. How long did it take to get here?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Less than one hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 - 3 hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
More than 3 hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
5. How often do you come here?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
First visit (Skip to Q8)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
More than once a week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

About once a week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
About once a month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Less than once a month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6. When were you last here	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Earlier this week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Last week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Last month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
More than a month ago	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
7. About how long were you here last time	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Less than 1 hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 - 2 hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2 - 3 hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
More than 3 hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8. How much money will THIS visit cost?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Nothing	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Less than $5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$5 - $20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
More than $20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9. Have you ever come to clinic because you were suffering from _____ (health problem specific to study)																
Yes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
10. Does that happen often?	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Yes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11. Have you ever (or you relative or children you live with) suffered from any of the following?																
Disease name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Disease name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Disease name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Disease name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16