

Contents lists available at [ScienceDirect](#)

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Factors influencing vaccine acceptance and hesitancy in three informal settlements in Lusaka, Zambia

Miguel Pugliese-Garcia^{a,*}, Leonard W. Heyerdahl^b, Chanda Mwamba^a, Sharon Nkwemu^a, Roma Chilengi^a, Rachel Demolis^b, Elise Guillemet^b, Anjali Sharma^a

^a Centre for Infectious Disease Research in Zambia (CIDRZ), Plot # 34620, P.O. Box 34681, Lusaka 10101, Zambia

^b Agence de Médecine Préventive, Abidjan, Cote d'Ivoire

ARTICLE INFO

Article history:

Received 19 January 2018

Received in revised form 6 July 2018

Accepted 17 July 2018

Available online xxx

Keywords:

Vaccine hesitancy

Vaccine acceptance

Perceived safety

Perceived effectiveness

Informal settlements

Zambia

ABSTRACT

Introduction: Heterogeneous coverage threatens to compromise the effectiveness of immunization programs in Zambia. Demand-creation initiatives are needed to address this; however, there is incomplete understanding of why vaccine coverage is suboptimal. We investigated overarching perceptions on vaccine acceptability, hesitancy, and accessibility at three informal settlements in Lusaka, Zambia.

Methods: Nested within a cholera vaccination uptake study, we sought to understand overarching perceptions on vaccines' hesitancy in three informal settlements in Lusaka, Zambia. We conducted 48 focus group discussions with a convenience sample of laypersons, lay healthcare workers, neighbourhood health committee members and vaccinators.

Results: Both laypersons and community-based health actors reported high vaccine acceptance though several sources of hesitancy were reported. Traditional remedies, alcohol use and religious beliefs emerged as drivers of vaccine hesitancy, likely reinforced by a background of distrust towards western medicine. Also mentioned were previous adverse events, fear of injections and low perceived need for immunization. Limited understanding of how vaccines work and overlapping local terms for vaccine and other medical concepts created confusion and inaccurate views and expectations. Some reported refusing injections to avoid pain and perceived risk of infection. Discussants emphasised the importance of education and preferred mobile immunization campaigns, with weekend to reach those with poor access and delivered by a combination of professional and volunteer workers.

Conclusions: Vaccine hesitancy in Zambia is underpinned by many factors including personal experiences with vaccinations, alternative belief models, limited knowledge, deep misunderstanding about how vaccines work, and barriers to access. To overcome these, community-driven models that incorporate factual communication by professionals and operate outside of traditional hours, may help. Better research to understand community preferences for vaccine uptake could inform interventions to improve immunization coverage in Zambia.

© 2018 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Despite universal provision, evidence suggests relatively low vaccination coverage in Zambia [1,2]. For example, though Zambia's immunisation programme has routinely delivered vaccines for free to infants in all public health facilities since the 1970s, in 2013–2014, less than 60% of children had received the recommended vaccinations by 12 months of age. Coverage varied between vaccines and between doses for a given vaccine, with higher uptake among infants of more educated mothers, urban

residents and wealthier households [1]. Lower vaccine coverage in some sub-populations may be due to limited availability of vaccines or vaccination hesitancy (i.e., reluctance) [3,4]. Under the World Health Organization (WHO) Strategic Advisory Group of Experts' definition, vaccine hesitancy refers to the delay or refusal of vaccination despite its availability [4]. It can be influenced by lack of confidence in recommended vaccines and providers, complacency regarding the need for vaccination, and the perception of how conveniently can be obtained [4]. All of these are shaped by context (e.g., distance to health services, culture, or history) as well as individual and vaccine-specific factors (e.g. perceptions often vary by vaccine) [4–7] making it important to undertake studies that closely examine people's knowledge and beliefs regarding recommended vaccinations.

* Corresponding author.

E-mail address: Miguel.Pugliese-Garcia@lshtm.ac.uk (M. Pugliese-Garcia).

<https://doi.org/10.1016/j.vaccine.2018.07.042>

0264-410X/© 2018 The Authors. Published by Elsevier Ltd.

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Evidence on determinants of vaccine hesitancy in Zambia is scarce. A cross-sectional study on anticipated response to the introduction of the human papillomavirus (HPV) vaccine reported high acceptance among women [8] in contrast, a qualitative paper voiced healthcare workers' concerns about the influence of male and elders' consent, distrust of western medicine and low education as barriers to uptake of the vaccine in urban and peri-urban settings, distance to health services, poverty, low health literacy and perceptions on accessibility negatively influenced adults' decisions to seek care for their children including for immunisation [10,11]. Modelling on Zambia's determinants of vaccination estimated that demand-related determinants (i.e., positive attitudes and norms towards vaccines and increased perceived control on vaccination) contributed strongly to completion of all required doses of a vaccine, while supply-related determinants (supplies and human resources) contributed more to vaccine initiation [12]. These included perceived purpose and effectiveness of vaccines and the personnel delivering them (attitudes), social networks and communication (norms), as well as perceived control over time, cost and availability (self-efficacy). While determinants may vary by disease or vaccine, (e.g., a HPV vaccine may be more fear inducing than influenza vaccine), addressing these requires understanding the general perception of vaccinations within the given context [13]. Very recently, a qualitative study reported that mothers in the capital generally had positive views regarding vaccination, but signalled that lack of knowledge and rumours in the community acted as barriers to vaccinating their children [14]. To the best of our knowledge, no study, qualitative or otherwise, has examined general perceptions on vaccination of the wider community and health actors to holistically understand vaccine acceptance and hesitancy in Zambia.

This qualitative study was nested within a larger study on the uptake of two-dose oral cholera vaccine (OCV) in three informal settlements, locally referred to as "compounds", in Lusaka. Compounds are informal settlements characterised by crowding, poor housing, inadequate water and sanitation and large transient populations from rural areas [15,16]. Approximately 1.2 million people living in Lusaka compounds are at risk of vaccine-preventable diseases, which can spread rapidly due to a crowded, unsanitary environment and differential vaccine uptake [10,17,18]. During February 2016, a cholera outbreak affected several compounds, with 1054 cases reported [15]. In response, the Zambian Ministry of Health began a reactive one-dose OCV campaign in May 2016 [15,16] followed by a pre-emptive campaign in December 2016. This provided the opportunity to collect information on communities' views on vaccines, which could contribute to the explanation of differences in vaccine coverage observed in Zambia.

2. Methodology

2.1. Study design

We conducted a rapid qualitative assessment that included 48 Focus Group Discussions (FGDs) with residents and community-based health actors –lay healthcare workers (HCWs), vaccinators and neighbourhood health committees (NHCs) (Table 1).

Participants were recruited using convenience sampling. Each day, research assistants walked from different delivery posts used during the reactive OCV campaign to the nearest gathering to identify adults who reported taking zero or one doses and who were willing to participate in the assessment. They continued recruiting at the house closest to the gathering, moving in concentric circles until they reached eight to twelve people per FGD. During and after the second-dose campaign, they also recruited those who reported taking two doses. Recruited residents were invited to participate in

Table 1
Sample size for procedures before, during and after the 2nd dose campaign.

Participant type	Number of compounds	Phase	Total FGDs
<i>Laypersons</i>			
Not vaccinated (0 doses of OCV)			
Men	3	Before & during/after	6
Women	3	Before & during/after	6
1 dose of OCV			
Men	3	Before & during/after	6
Women	3	Before & during/after	6
2 dose of OCV			
Men	3	During/after only	3
Women	3	During/after only	3
Total laypersons			30
<i>Community-based health actors</i>			
Lay healthcare workers/ community assistants	3	Before & during/after	6
Neighbourhood health committees	3	Before & during/after	6
Vaccinators	3	Before & during/after	6
Total health actors			18

gender and dose-specific groups scheduled for a specific time at the nearest health care facility. Those willing provided a contact number. No-shows were called and if unavailable or unwilling, replaced by new recruits in the vicinity. Community-based health actors were recruited through the compounds' clinics (government health facilities). Sisters-in-charge (equivalent to clinic managers in other settings) provided these actors with study related information and those interested were invited to vaccinator, lay HCW or NHC FGDs at the clinic.

FGDs began with participants' informed consent and were conducted in their preferred language (Bemba, English or Nyanja) and recorded with their permission. They also filled a short anonymous questionnaire regarding socio-economic status and vaccines. Being mindful that discussants' views may have been influenced by the cholera outbreak and the OCV campaigns, questions regarding vaccines in general were asked separately from those specific to OCV and moderators sought clarification when unsure of the point of reference during the FGD.

2.2. Data analysis

Audio recordings in local languages were translated and transcribed verbatim in Microsoft Word and subjected to an iterative process of coding in NVivo QSR™. We used latent content analysis [19], reading transcripts repeatedly to develop a sense of the whole before open coding the data using inductive and deductive reasoning. Meaning units against the codes were compared for similarities and differences to create categories of related codes and sub codes. Themes were then generated by interpreting the codes for their underlying meaning and exported as tables in Microsoft Word© for further synthesis. Themes included general acceptability (including competing practices and beliefs and safety), views on effectiveness and preferences for delivery (See Table 2). As laypersons and health actors communicated the same information, we did not differentiate between the two in our results. Questionnaire data were entered into Excel© and simple descriptive analysis was performed using Stata 14.

2.3. Ethical considerations

The University of Zambia Biomedical Research Ethic Committee (UNZABREC) and the National Health Research Authority (NHRA) approved this study.

Download English Version:

<https://daneshyari.com/en/article/8956416>

Download Persian Version:

<https://daneshyari.com/article/8956416>

[Daneshyari.com](https://daneshyari.com)