

# Khayelitsha Rodent Study (KRS) Dataset Guide

Version 1

*27 November 2018*

## **Motivation for Study**

The main objective of the KRS was to explore the nature of rodent infestation and attitudes towards rodent control and poison use in Site C Khayelitsha. The KRS originated in response to the controversy over a Public Works Programme (PWP) run by the Khayelitsha Environmental Health Unit in which previously unemployed people were hired to set cage traps in people's homes and then drown the captured rats. The Society for the Prevention of Cruelty to Animals (SPCA) threatened legal action (because drowning animals is illegal) and the PWP resorted back to using poison.

## **Scope of Study**

The study collected information about rodent damage, rodent presence, attitudes towards rodents and rodent control, rubbish disposal, building quality and socio-economic status. It also explored more qualitative concerns pertaining to social capital, witchcraft, environmental priorities and animal welfare.

## **Known-problems**

For RESPIDs 68B, 147, 157A, 178, 257A and 257B the location of these respondents are not known with precision. The respondents are in the correct PSUs. This means that they have weights and are suitable for analysis. However for spatial analysis these RESPIDs should be excluded.

There is a severe interviewer effect for Q13.5. The options 1, 2 and 4 have captured ambiguous effects. A derived variable `rubbish_dispose_derived` addresses this issue and should always be used in place of Q13.5.

Question Q22 asks if a respondent can distinguish between rats and mice. If a respondent cannot then their responses are captured under the derived variables `rodents_`. Only respondents that can distinguish between rats and mice have data for the variables `rats_` and `mice_`.

## **Questionnaire versions**

The questionnaire version V1.03 is the last one used in the field. This version differs from the first version deployed in that it incorporates questions q73.1 to q74.5 directly. For respondents

who answered an earlier questionnaire version these questions were asked using a telephone interview.

## Sampling Design

The Khayelitsha Rodent Study was a stratified two-stage random sample conducted between 08-08-2017 and 30-06-2018 in Site C, Khayelitsha, South Africa. The ‘Small Areas’ demarcated by the 2011 census are the primary sampling units. The Small Areas were stratified according to whether they covered formal housing areas (i.e. had a cadastral layer) or were informal shack settlements (without such a layer). The secondary sampling unit (SSU) was dwellings within each Small Area. Backyard shacks in formal Small Areas were counted as separate dwellings. The PSU and SSU were chosen at random. The questionnaire respondent was an opportunistic selection from the one of the dwelling residents. In most instances the questionnaire respondent was the person who opened the door.

The sample of 222 households was drawn from 11 Small Areas (7 informal and 4 formal). The number of dwellings in a formal Small Area are on average 211 and 205 in the informal areas. The number of respondents per Small Area is given by Table 1.

Table 1: Overview of Sampling

Small Area	Strata	Total Dwellings	Sampled	Sample Percentage
1992319	informal	130	22	16.9
1994914	formal	288	19	6.6
1994741	formal	256	29	11.3
1994089	informal	293	23	7.8
1992991	formal	153	18	11.8
1992324	informal	211	20	9.5
1991913	informal	230	23	10.0
1991350	informal	218	14	6.4
1991106	informal	181	18	9.9
1991945	formal	148	19	12.8
1991464	informal	172	17	9.9

## Weighting & Finite Population Corrections

Two weights are provided in the Khayelitsha Rodent Study dataset: `PP_weight` is an individual level weight and `HH_weight` is a household weight. The variable `PSU` has the Small Area number and `stratum` the classification for the PSU. Finite Population Corrections (FPC) for the PSU is given by the `FPC_PSU_within_stratum` variable and the FPC for the SSU by the `FPC_dwellings_within_PSU` variable.

The variables `PSU` and `stratum` capture this in the dataset. There are two weights provided in the KRS dataset: `PP_weight` is an individual level weight and `HH_weight` is a household weight.

## Asset Index

A Stata .do file is provided which calculates various asset indexes as described in The Rat Trap (Nattrass *et. al*, 2018). Use the Stata function `Do` to load a do file. Type `help Do` for more details in Stata.

## Funding

The KRS was funded by the Centre for Social Science Research and the Institute for Communities and Wildlife and an NRF Grant CSRP170413227090.

## Ethics Approval

Ethics approval for the survey was obtained through the University of Cape Town's Research Ethics Committee (REC/2017/03/001 and REC/2018/02/006).

## Citation

In accordance with fair-use policies and reproducible research, please use the following academic citation in your publications to acknowledge use of this dataset:

This style is preferable.

**In-text Reference:** (CSSR & iCWild, 2018)

**Reference List:** Centre for Social Science Research and the Institute for Communities and Wildlife, University of Cape Town. 2018. Khayelitsha Rodent Study 2017-2018 [Dataset]. Version 1. Cape Town: CSSR and iCWild [producers], 2018. Cape Town: DataFirst [distributor], 2018.

## Dataset Version

v0.1: 26/01/2018

- Initialised

v0.2 30/01/2018

- Corrected Stata labels (prototype)
- Corrected data capturing errors

v0.3 31/01/2018

- Corrected incorrect filtering on certain questions with the prefix "council\_"
- Corrected miscellaneous Stata labels

v0.4 11/02/2018

- Added elements of complex survey. Namely strata, PSU and weights
- Miscellaneous corrections of respondent data
- Added string variables for all questions which specify an "other" prefixed by "other\_" followed by the question
- Corrected the question number for the date of birth question

- Changed the “occupation” variable to “labour\_market\_status” variable
- Corrected incorrect numbering in Stata for the asset index
- Miscellaneous corrections of dataset formatting

v0.5 14/02/2018

- Corrections and enhancements to the Guide
- Corrected error with GIS for respid 188

v0.6 16/02/2018

- Corrected data capturing errors for respid 127
- Tidied measures of rodent, rat and mice presence
- Minor typographical changes to the guide

v0.7 April 2018

*(Internal release)* - Added additional refuse collections (Emma’s Questions)

- Split question q2.1 into q2.1\_main (main type of roof) q2.1b\_sec (secondary roof type) (All data was retrospectively updated)
- Split question q5 into q5\_main (main flooring of the dwelling) and q5\_sec (secondary flooring type of the dwelling) (All data was retrospectively updated)
- Added additional observations from wave 1B
- Added capture checks
- Survey check corrections

v0.8 25/04/2018

- Completed and data captured expansion (wave 1B)
- Survey check corrections
- GIS corrections for respid 190A and 190B (these had misclassified small areas)
- GIS corrections for respid 193A and 193B (these had misclassified small areas)

v0.85 01/05/2018

- Corrected a GIS issued for point 68B.
- Ordered the dataset according to question number

v0.9 03/07/2018

- The variable `distance_walking` is the walking distance to a container for houses in the informal settlements. Thanks to Emma!
- There is a variable for interviewer. This can be used to control for suspected interviewer effects.
- Devised a person/individual level weight. This weight is called `weight_PP` and is a probability weight (so set up in `svyset` appropriately). The household level weight is retained as `weight_HH`.
- Two new small areas are added (35 more respondents); this ends the fieldwork the only outstanding respondents are those with errors noted below.
- An derived variable for rubbish collection is added. This variable overcomes a severe interviewer effect in previous versions. The variable is called `rubbish_dispose_derived`.
- Corrected numerous Stata labels

v0.91 03/07/2018

- The variable `distance_walking` is was not included in the Stata release. Version v0.91 correctly includes the variable.

v0.92 03/07/2018

- Corrected an error with the `distance_walking`

- Corrected the PP\_weight variable

v1 19/11/2018

- Corrections to data-capturing.

- Finalised dataset.

## References

Nattrass, N., Stephens, J., Loubser, J. The Rat Trap: Contestation over rodent control in Cape Town. CSSR Working Paper no. 410. Feb 2018. Available: <http://www.cssr.uct.ac.za/pub/wp/410>