

## BRC RAMS AMPLIFY TECHNICAL REPORT

# **BRC RAMS Amplify CATI DAR TECHNICAL REPORT**

## 1. Introduction to CATI DAR

The collection of data on South African radio listening behaviour for the Broadcast Research Council's BRC RAMS Amplify Computer Assisted Telephone Interviewing (CATI) Day-After-Recall (DAR) study commenced on 19 April 2021. The study is a bespoke audience survey forming part of a wider radio audience measurement programme including a passive listening panel using MediaCell technology which is still in set-up phase. The RAMS Amplify CATI DAR survey is designed to meet the immediate needs of radio broadcasters and advertisers and to provide a robust sample in the longer term.

The CATI DAR survey consists of daily telephonic interviews, adding to 3 000 interviews every month:

- With individuals aged 15 years or older to collect their demographic information, general media behaviour and radio listenership in the past 7 days and the day preceding the interview ('yesterday').
- With those individuals who have listened to the radio on the day preceding interviewing ('yesterday') to collect their radio station listening data for 'yesterday' by daypart, quarter hour, device and location, for all South African Commercial, Public Broadcasting Service (PBS) and Community radio stations.

The aim is to build a 12-month rolling sample of 36 000 by the end of March 2022, but with the option to provide earlier releases with available data. After a process of scrutiny and independent auditing, it was decided to release a 5-month (April to August 2021) cumulated sample of 15 058. The next release will be based on a 7-month cumulated dataset (April to October 2021).

## 2. Definition of terms

### Area classification or Geo-type

Areas are classified into one of three area types using the Stats SA Census classification as a guideline. In the CATI DAR sample these areas are not pre-determined (see RDD below), but rather respondents are asked to classify their area type during the interviewing process. Using a funnel approach, respondents are first asked in which province they live, then in which district municipality, and finally in which of these area types:

- **Metro** – where respondents live in a metropolitan municipality, namely Buffalo City Metropolitan Municipality, Nelson Mandela Bay Metropolitan Municipality, Mangaung Metropolitan Municipality, City of Johannesburg Metropolitan Municipality, City of Tshwane Metropolitan Municipality,

Ekurhuleni Metropolitan Municipality, eThekweni Metropolitan Municipality and City of Cape Town Metropolitan Municipality, their area type is automatically programmed as “metro”. Respondents who do not live in one of the metropolitan municipalities are asked to choose one of the options below:

- **Non-metro Urban** – in the questionnaire this is defined as “city, town, large or small village.
- **Rural** – in the questionnaire this is defined as “rural settlement or deep rural”.

To mitigate possible miss-classification arising from self-classification, a system was introduced starting October 2021 whereby respondents are asked to provide the name of the suburb in which they live. Where provided, these suburb or sub-place names may be correlated with Enumeration Area data and used to define the respondent’s area type more accurately.

## **CATI DAR**

Computer-Assisted Telephone Day-After Recall Interviews are interviews done via out-bound telephone calls. The Day After Recall method of questioning for audience measurement is a method where respondents are asked about their radio listening on the day preceding the day of interviewing. An interviewer conducts the interview as per the CATI computer script and captures the answer on computer. Data is uploaded to a central database once the interview is complete.

## **Random Digit Dialling (RDD)**

The monthly sample is achieved through random digit dialling. This method provides a random sample of South Africans aged 15 years or older who own cell phones. A random set of cell phone numbers to be used during fieldwork is generated using all prefixes available in South.

## **Disproportionate sample**

In a disproportionate sample, the achieved CATI DAR sample size per stratum does not match the proportion of that stratum in the population. This requires the results to be adjusted so that the correct profile is re-established through weighting some strata up or down. Disproportionate samples may be the result of the RDD and CATI DAR field process, or the result of pre-set targets based on certain required variables. For BRC RAMS Amplify disproportionate targets are set with a higher disproportionate allocation to Urban areas.

## **Enumeration area (EA)**

The smallest geographical unit (piece of land) into which the country is divided by Stats SA for census or survey purposes. For BRC RAMS Amplify, EA targets are not pre-set, but monitored by collecting location data from respondents.

## **Flooded respondents**

CATI DAR is based on individual respondents and not households. In cases where certain demographic cells prove challenging to fill, respondents are asked if any other household members fit the requirements. These leads are then followed up in field.

## **Geography type (Geotype)**

The geography type is based on the official Statistics South Africa classification which uses input from the Surveyor General. The three geography types are Urban, Farm and Traditional.

## **GTI**

Geoterra Image (GTI) Geoterra Image is a company which transforms remotely-sensed data into spatial information which is enriched with supplemental information from unrelated sources to provide insight on human activities and which is able to be generated and supplied in the form of map-based products. Furthermore, GTI provides advisory services on sample targets, frames, updated population estimates and weighting procedures.

## **Respondent**

All respondents on CATI DAR are individual respondents and their answers represent those of individuals and not households.

## **District Municipality**

District Municipalities and their boundaries are officially recognised areas as defined by the Municipal Demarcation Board. Eight municipalities have been classified as 'Metropolitan Municipalities', namely Buffalo City Metropolitan Municipality, Nelson Mandela Bay Metropolitan Municipality, Mangaung Metropolitan Municipality, City of Johannesburg Metropolitan

Municipality, City of Tshwane Metropolitan Municipality, Ekurhuleni Metropolitan Municipality, eThekweni Metropolitan Municipality and City of Cape Town Metropolitan Municipality.

## **Province**

The nine provincial boundaries in the BRC RAMS Amplify sample align with those of Statistics South Africa.

## **Radio listening: past 7 days and yesterday**

Respondents are asked which stations they listened to for 5 minutes or more in the past 7 days, and, of these, which on the day preceding the interview.

## **Radio stations**

All stations broadcasting on an AM or FM frequency, as published by The Independent Communications Authority of South Africa (ICASA). This excludes radio stations that broadcast exclusively through streaming.

## **Sampling frame**

The RAMS Amplify CATI DAR target sample frame comprises target sample proportions by gender, age group, race, province, Geotype and Neighbourhood Lifestyle Index (NLI).

## **Neighbourhood Lifestyle Index (NLI)**

NLI is a GTI proprietary demographic index that indicates a neighbourhood's relative wealth at EA level. For CATI DAR interviewing, annual gross household income is used as a proxy for NLI and forms part of the target sampling frame.

## **Time spent listening**

The number of hours people listen to the radio across an average day, derived from the total quarter hours of listening recorded against each station.

### **3. The BRC RAMS Amplify sample**

The monthly sample size is 3 000 individuals, building up to an annual (or 12-month) rolling sample of 36 000 individuals.

#### **The sampling approach**

The sample is achieved through Random Digit Dialling (RDD) and compared to the target sample on an on-going basis.

Random Digit Dialling, by nature, provides samples that fall out proportionately to the general South African population. As a way to monitor and ameliorate the possible under-representation of non-urban areas, a control measure has been introduced by monitoring ranges of deviation from a proportional ideal as follows:

- If proportion is 50% or more: 7.5% deviation
- 25% - 50%: 15% deviation
- 10% - 25%: 10% deviation
- 10% or less: 20% deviation

The BRC RAMS Amplify CATI DAR target sampling frame is constructed through a stratified multistage design process in consultation with GTI, using their up-to-date population estimates on key strata, namely Geotype, province, race, age and NLI.

These key sample variables are determined for each respondent during the CATI DAR interview. Achieved sample reports are provided daily to monitor the sample performance against the target.

## 4. Survey technique

### Methodology

Respondents are called using the CATI RDD system. Respondents who are 15 years old or older and who are willing to continue with the interview are asked about their radio listening, namely the stations they listened to in the past 7 days and 'yesterday'. Quarter hour listening, device and location are recorded for stations listened to 'yesterday'.

Where respondents do not listen to the radio, their demographic details and general media behaviour are recorded and added to the dataset.

The interview takes approximately 20 minutes for non-radio listeners and 28 minutes for radio listeners.

### Securing a respondent

Respondents are called from a random set of numbers and are screened for age and for their willingness to participate in the interview.

In case of refusals, non-qualified respondents, or drop-offs, the next available number in the RDD list is called.

### The CATI DAR questionnaire

The following topics are covered in the questionnaire:

- Demographics: home language, gender, age, population group, residence by province, district or metropolitan municipality, suburb/town/village, general media usage, SEM, household size, level of education, work status, gross monthly household income used as a proxy for NLI, marital status and shopping responsibility;
- radio station(s) listened to in past 7 days
- radio station(s) listened to by day of the week, based on 'yesterday listening';
- daypart and quarter-hour listening for radio station(s) listened to 'yesterday';
- device on which radio was listened to, based on station(s) listened to 'yesterday';
- location when listening to the radio, based on station(s) listened to 'yesterday';
- favourite radio station;

- favourite presenter on favourite radio station;
- kinds of radio shows preferred;
- attendance at any radio events in past month;
- any radio stations stopped listening to in past month, and reason;
- any radio station switched to in past month.

Stations not included in the master list, which start airing during a month of fieldwork, are added for the following month's fieldwork. The same applies to stations removed from the list.

All stations included in the master list will be reflected in the BRC RAMS Amplify survey for a given rolling 12-month period. Given the cumulative nature of the dataset, stations removed during a rolling 12-month period will be automatically removed as and when the month of removal is deleted from the rolling dataset.

The release deck will include profiling analyses of all Commercial and PBS stations, and for those community stations with sample bases of 40 or more. Past 7 days and 'yesterday' listenership figures will be included for all the above and for those community stations with sample bases of 20 or more.

## **5. Data collection and quality control**

The CATI DAR questionnaire is scripted for computer interviewing and as such has check-edits built in. If any changes are made to the questionnaire, such as stations added or removed, then the script is thoroughly checked before fieldwork.

For monitoring and quality control purposes, all CATI calls are recorded and stored securely. The call centre has real-time listening facilities that enable supervisors to listen in real time and watch interviewers' key strokes live on the spot.

A minimum of 20% of all interviews are monitored through listening.



## 6. Sample weighting

After data collection and capturing, the data will be appropriately weighted, to align the sample with the target population as closely as possible, and to compensate for disproportions resulting from the fieldwork process.

The BRC RAMS Amplify data is weighted to match the data provided by GTI. Weights are applied at province level using these variables:

- Race
- Gender
- Geotype
- Age
- Day of week

A Random Iterative Method (RIM) weighting is applied. RIM weighting uses a mathematical algorithm to help provide an even distribution of results across the province, while balancing the required weighting variables with predetermined totals. It weights the specified variable simultaneously and disturbs each variable as little as possible. This in turn protects the integrity of the data and supports the precision of research estimates.

A weighting efficiency report is produced with each release.

Different weighting schemata are computed for individual-level data and will form part of the dataset as separate weight factor variables.

## 7. Reporting

Once a 12-month set of data is achieved, audience data will be released on a monthly basis. In the interim releases are determined based on scrutiny and independent auditing recommendations as to the stability of the available data.

A scrutiny deck and session, as well as a listenership report will be provided with each release.

A full release presentation will be provided and quarterly (3-month) cycle.

The release presentation outlines the full sample, general listening trends and station-level results.

In addition, dashboards are produced on a quarterly basis for all Commercial or PBS stations and for community stations with a base size of 40 or more. The dashboards show the listening figures, station-listener profiles (demographics, device and location listening) and quarter-hour curves.

The data is released to the industry through Third Party Software Providers approved by the BRC.