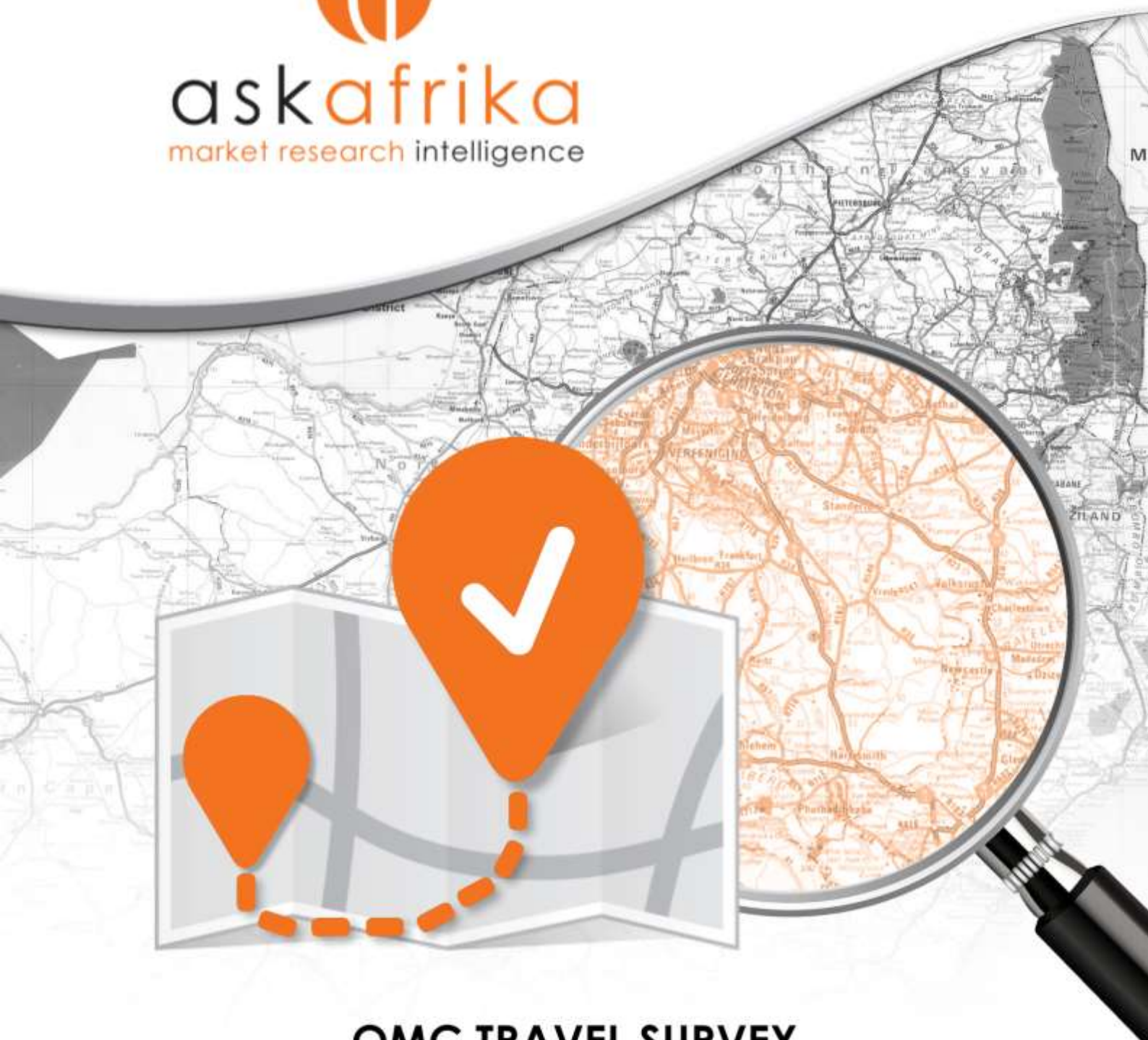




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market research intelligence



OMC TRAVEL SURVEY TECHNICAL DOCUMENT



OUT OF HOME MEASUREMENT COUNCIL



ROADSIDE OUTDOOR
AUDIENCE DATA

OMC TRAVEL SURVEY TECHNICAL DOCUMENT Combined 2-year release 15C16C

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1. Introduction and objectives

Out-of-home (OOH) advertising is advertising that reaches consumers while they are outside their homes. Out-of-home advertising is focused on marketing to consumers when they are "on the go" in public places, in transit, waiting areas (such as in a medical office), and/or in specific commercial locations (such as in a retail venue, shopping malls). OOH advertising formats fall into four main categories of which this research is referring to billboard advertising.

The Out Of Home Measurement Council (OMC), registered in early 2015, is a council who is representative of key OOH media owners such as Primedia, JCDecaux, Ad Outpost and Outdoor Network who commissioned Ask Afrika in 2014 to supply travel, demographic and branded product data as part of a solution to produce a common trading currency for roadside static media in South Africa. The data is provided to Cuende Infometrics who uses the travel survey as input in its travel models.

The main objectives of the survey are:

- To provide regular trip data for a representative sample of South Africans.
- To collect individual and household demographics that will be included in the final currency data set.
- To collect travel data that will be included in the Cuende Infometrics travel models.



The purpose of the document is to provide the technical detail behind the OMC travel survey across the research value chain i.e. questionnaire design, fieldwork, universe, sampling and data releases. The information provided is based on the 2015C/2016C surveys.

2. OMC research methodology

2.1 Research design

A cross sectional survey design is employed using personal face-to-face interviews. A probability sample is drawn and respondents are interviewed in their homes on Android powered tablets. The respondent is incentivised in the form of a lucky draw where a monetary sum of up to R5,000 is on offer. Data collection is continuous between February and November annually. Interviews are conducted across all days of the week within set guidelines – no less than 11% on any giving day and no more than 19% on any given day. There are two data releases annually of 7,500 interviews each and an annual release of 15,000 interviews.

Average completes per week

Day of the week	Completes	
Mon	5800	13%
Tue	6758	15%
Wed	7204	16%
Thurs	7249	16%
Fri	7003	15%
Sat	6470	14%
Sun	5065	11%
Total	45549	

2.2 The OMC questionnaire

The entire Out of Home survey is conducted face-to-face with the respondents. The flow of the questionnaire is as follows:

- Household selection and kish grid;
- Demographic section;
- Travel survey.

The face-to-face interview is critical for establishing the demographics of the main respondent as well as the demographics of the households in general. The face-to-face interview is completed via personal interviews with the randomly selected participants using Android powered tablets. Where appropriate, interviewers will hand over the device showing the question to the respondent to clarify certain concepts, aid recall and to introduce sensitive questions. The benefit of using tablets is that they are small enough not to be intrusive, but big enough to present a readable questionnaire to the interviewer and respondent.

The face-to-face interview is pre-programmed so the interviewer does not need to focus on routing or look out for logical inconsistencies, as this is dealt with automatically by the software. This allows the interviewer to focus on building rapport with the respondent which will result in better quality data. The OMC questionnaire takes about 15-20 minutes to complete, depending on the number of destinations chosen by the respondents and is fully quantitative.

The questionnaire includes:

- Details regarding trips taken in the past 7 days in terms of:
 - Destination/Purpose of trip
 - Mode of transport
 - Frequency of trip
 - Time of trip (start/return trip)
 - Duration of trip (start/return trip)
 - Start and end address of each trip
 - Sequence of destinations

2.3 Data releases

The travel survey data is released twice a year, in April/May and August/September. The first release is an A release and the second a B release. These are combined to form a C release which is released simultaneously with the B release. The currency will however only be produced annually.

The current currency release to the Industry is a combined 2-year OMC travel survey data collection period. The currency produced in this document is looking at the annual OMC releases of 2015 and 2016. *Once the 2017 data has been processed, the currency release will be based on a 3-year rolling sample.*

2.4 Universe

The universe is defined as people aged 15 years and older in South Africa, living in households, hostels or similar accommodation, in communities with 8000 or more inhabitants. Institutions (for example hospitals and prisons), industrial areas, recreational areas and farms are excluded.

2.5 Sample frame

A sampling frame is a complete list of sampling units that entirely covers the target population. The existence of a sampling frame allows a probability selection of sampling units. For a multi-stage survey, a sampling frame should exist for each stage of selection. The sampling frame used in the OMC travel survey is as up-to-date as possible (incorporating the Statistics SA' mid-year population estimates). The sampling frame covers the whole survey area (all adults 15 years and older in communities 8000+).

The sample frame used for OMC is the Enumerated Area (EA) frame. This sampling frame is jointly owned by Dr Ariane Neethling and GTI. For the 1996 and 2001 population census, South Africa was subdivided into Enumerator areas (EAs).

An EA is a small geographic unit of a manageable size (in terms of population and land area) assigned to a single person to enumerate during the census count. In their creation, it is vital to ensure that they adhere to certain standards. These standards include, among others, the following:

- EA's cover all areas of the country, i.e. no omissions and no overlapping of EA's
- EA's are accessible and of such a size that field workers can carry out their tasks within stipulated period of census taking
- EA's are as homogeneous in land use as possible

The determination of size is influenced mainly by the EA's geographical location and population density. In thinly populated areas, the EA's tend to be large in terms of area but have a low dwelling unit count of approximately 100, whereas the densely populated areas tend to have small area sizes with a dwelling count of approximately 151.

The EA sampling frame consists, for each EA, its demographic information (main-place, sub-place, municipality, district, province, EA-type, EA-Geographic type, community size, estimated population counts of the number of households, number of people as well as numbers per population group, gender and per five-year age interval). The current EA sampling frame, based on StatSA's lists of main place, sub-place and EA numbers for 2016, consists of 14 039 main places over the whole of South Africa. These main places are sub-divided into 22 108 sub-places, which are further divided into 103 576 EAs.

2.6 The current universe and realised sample

The defined universe (South African population, aged 15+ years in communities 8000+) for this survey represents 25,212,488 adult South Africans which is 43% of the total South African population of 54,956,920. These numbers are based on the 2016 StatsSA Mid-year estimates.

The table below shows the realised sample characteristics of OMC2015C2016C, aged 15+ years in communities 8000+

The current sample frame by population group:

	BLACK	COLOURED	ASIAN	WHITE	TOTAL
Population	18433002	2956944	1014742	2807800	25212488
Gender	MALE	FEMALE			TOTAL
	12561613	12650875			25212488
Age	AGE 15 to 24	AGE 25 to 34	AGE 35 to 49	AGE 50 to 64	AGE 65+
	5517059	6476190	7306180	4140073	1772986
Province	BLACK	COLOURED	ASIAN	WHITE	TOTAL
EC	1563909	328853	28403	177292	2098456
FS	1310017	141273	0	146096	1597386
GP	8032371	573654	354275	1179588	10139888
KZN	2683406	154412	493320	354264	3685403
LP	616803	2994	25791	85768	731355

MP	1043990	38157	31933	127265	1241344
NW	897495	70423	26424	126369	1120711
NC	244651	183806	2757	42221	473434
WC	2040361	1463372	51840	568938	4124511
TOTAL	18,433,002	2,956,944	1,014,742	2,807,800	25,212,488

The realised sample by population group:

	Black	Coloured	Indian	White	Total
Population	14981	4491	2805	8356	30633
Gender	Male	Female			Total
	15317	15316			30633
Age	AGE 15 to 24	AGE 25 to 34	AGE 35 to 49	AGE 50 to 64	AGE 65+
	6465	8291	8960	4738	2179
Province	Black	Coloured	Indian	White	Grand Total
EC	1304	616	129	708	2757
FS	1193	226	0	452	1871
GP	6660	870	890	3461	11881
KZN	2122	261	1420	1031	4834
LP	340	15	56	158	569
MP	900	58	84	443	1485
NW	646	126	90	421	1283
NC	275	218	9	119	621
WC	1541	2101	127	1563	5332
Total	14,981	4,491	2,805	8,356	30,633

2.7 Updates to the current sampling frame

Stats SA and GTI data are used to update the EA sampling frame to produce the latest population estimates at an EA level. The EA sampling frame is updated at least once a year when the new midyear population estimates are released by Stats SA.

The latest information gathered by GTI, from fieldwork reports, and other sources, is also used to update/adjust the sampling frame to reflect the latest population, housing and other developments. Stats SA's mid-year estimates include updates on migration, HIV, death rates, birth rates etc.

Benchmarking techniques are applied in the updating process to ensure that the sum of the values in the EA sampling frame are equal to the estimates obtained for the variables in the midyear population data. These population estimates are the only official statistics in South Africa and form the base of the EA sampling frame.

2.8 Sample design

A Multi Stage Stratified Probability Sampling methodology using probability proportionate to size (PPS) is used in the design of the OMC sample. Province (Gauteng, Free State, Limpopo, Mpumalanga, North West, KwaZulu-Natal, Eastern Cape, Western Cape and Northern Cape), Geo-type (Metro-Urban, Metro-Rural and Non Metro-Urban) and population groups (White, Black, Coloured and Indian) are taken as the stratification variables to ensure the best possible precision for province, geo-type and population groups.

Sample design

- A stratified, multistage probability sample design
- Probability Proportion to size (PPS) with number of households as measure of size (MOS)

Stratification and allocation

- 3 Explicit Stratification variables: Primary strata: Geo-type by Province and Population group
- Implicit Stratification variables: District Municipality, local municipality, EA Type, main-place, sub-place and EA within each Explicit Strata

Selection of units and weighting

- 3,750 EA's are selected
- 15 000 HH points are selected systematically from a random starting point (4 points per EA)
- Interviewers use a Kish grid to select households and main respondent
- GIS maps and GPS co-ordinates supplied to interviewers
- Substitution rules x+1, x-1 employed
- Weighting variables: District Municipality, Race, Agegroup, Gender and Workstatus
- Design weighting to correct the unequal inclusion probability of respondents
- RIM weighting to adjust the design weights to the demographic population estimates

2.10 Disproportionate sampling and power allocation

Due to the significant differences in the population sizes between the strata, it is meaningful to deviate from proportional allocation. The power allocation rule is used to determine the number of EAs to be drawn per strata. The power allocation will thus determine the optimum sample size per province, community size and population group, in each of the primary stratification split, without sacrificing the precision.

The aim of using the power allocation rule is to somewhat decrease the allocation of EAs to the larger strata and to increase somewhat the allocation to the smaller strata. Hence, with this technique one can ensure, as far as the overall sample size allows, that the sample sizes are large enough in each stratum representing the different provinces and population groups within the sample frame.

Since a sample is drawn independently in each stratum, the design in each of the nine primary strata - Provinces – will be considered separately. Different disproportional allocation, by using different power allocations were used to ensure the best possible coverage of the elements.

Why do Ask Afrika employ a disproportional allocation on a population group level

Ask Afrika employ a disproportionate sample. A disproportionate sample is drawn to ensure a more optimal allocation when the strata (e.g. provinces, race groups) differ in size. One need to ensure optimal sample sizes to ensure better precision for the smaller strata. Thus, Ask Afrika boost smaller groups to get a better precision. Proportional allocation does not necessarily give optimal allocation.

Proportional allocation - Sample proportions are a true reflection of population proportions

Disproportional allocation – Sample proportions are not a true reflection of population proportions, some strata are over sampled and some are under sampled

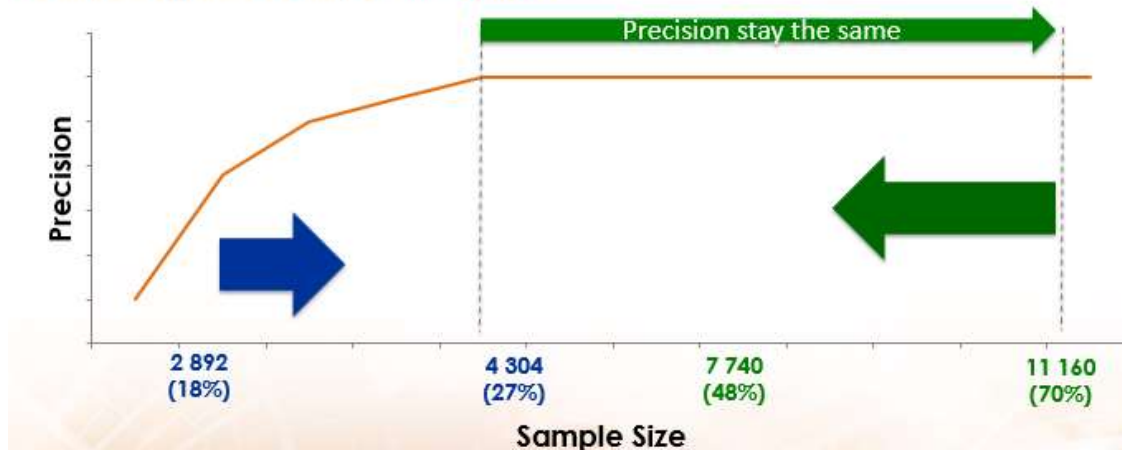
Use proportional allocation when:

- * The strata are equal (e.g. Provincial sizes, population group totals etc.)
- * If you are interested in overall conclusions, thus no interlocking quota data conclusions e.g. between Provinces, Province by population groups etc.

Use disproportional allocation when:

- * The strata vary greatly in size (e.g. Provincial sizes, population group totals etc.)
- * The variation within strata differ (some strata are more heterogeneous compared to other, thus the variances differ)
- * If you want to report and make conclusions on a lower level than just on an overall level

Example: Population groups, Black and White



2.10 Split samples for gender

Given the nature of South African society some level of control over gender groups needs to be maintained in order not to have a bias towards one gender group that might be more likely to be at home at the time of the interview. The number of interviews to be conducted in each EA was randomly allocated to each gender group. There are an equal number of males and females in the sample.

2.11 Sampling points selection

The EAs in each of the above explicit strata are ordered according to EA type, Main-Place, Sub-Place and EA number upon which the predetermined numbers of EAs are drawn using PPS (i.e. probability proportional to size) systematic sampling with the number of persons 15 years and older per EA as measure of size. In each of the drawn EAs, 4 house points are selected with equal probability. As all dwellings types is known in each EA, a systematic approach can be followed to determine the 4 sampling points per EA.

2.12 Selection of dwelling, household and respondent

The success of a probability sampling procedure depends on the success of the final stage of the sample design, namely the random selection of the main survey respondent. In each of the drawn EA's, three households need to be selected from which one adult 15 years or older will be interviewed.

The Kish grid is employed to select the dwelling, household and respondent if more than one of these with the predetermined gender is present at the visiting point. The Kish Grid is a well-established means of random selection and is widely used in the market research sphere. Only 1 person 15 years and older per household will be required and allowed to complete the questionnaire.

Dwelling selection

When more than one house/dwelling is located on the selected visiting point, the interviewer records the number of houses on the stand (from left to right). The interviewer then refers to the Kish grid to identify the dwelling that should be targeted for the interview. A dwelling unit is defined as a home, residence or sleeping place that is occupied by at least one person.

Household selection

When more than one household is located in the selected dwelling unit within the predetermined gender the interviewer records the number of households staying in the house. The interviewer then refers to the Kish grid to identify the household that should be targeted for the interview. A household is defined as people living in the same dwelling and usually eating together for at least 4 nights per week or more.

Respondent selection

When there is more than one individual within the predetermined gender aged 15 and older in the household, the interviewer records the number of people by looking at the ages and list it from youngest to oldest. The interviewer then refers to the Kish grid to identify the individual that should be targeted for the interview.

The Kish Grid uses a pre-assigned table of random numbers to find the person to be interviewed.

The kish grid instructions are as follow:

1	2	3	4	5
The interviewer counts the number of dwellings on the stand. A dwelling is defined as a structure that is used as a home, residence or sleeping place by at least one person	The kish grid is used to determine which dwelling to interview. After the dwelling is selected the interviewer then counts the number of households in the dwelling - within the predetermined gender. A household is defined as people living in the same dwelling and usually eating together for at least 4 nights per week or more	The kish grid is used to determine which household to interview. After the household was selected the interviewer then counts the number of people living in this household who are older than 15 - within the predetermined gender	The interviewer lists the ages of these people from youngest to oldest. The kish grid is used to determine which respondent to interview.	The interviewer reintroduces him/herself to the respondent (if necessary) and commences with the survey

2.13 EA map production

EA maps are used for the selected EAs. These maps clearly indicate the EA boundaries as well as street names. The GPS coordinates of the EAs on the maps ensure that the fieldworkers go to the correct area. In areas with unstructured boundaries/street names, more emphasis was on the provided GPS co-ordinates which identify the selected 4 points within the selected EAs.

The EA maps indicate the following information:

- A density map of the selected EA which indicate the population distribution.
- Black and white maps providing navigational information into the EA interviewing points (systematic allocated) per EA according to EA density
- Preselected systematic interviewing points are allocated on each EA map. This show the exact location of interviewing (GPS coordinates will also be indicated especially in more informal settlements).

Image 1: EA Map information



2.14 Mix population groups within an EA

A 'perfect' sample is a sample that mirrors all the characteristics of the population and it is important that enough people of all the population groups are included in the sample. Since the population size of the different population groups deviate largely in size the only way to 'control' the number of each population group in the sample, is to include population as a stratification variable and to apply power allocation.

Many EAs consist of more than one population group. The population group with the largest population number in that EA is taken as the dominant population group.

From experience over the years, Ask Afrika knows that if one does not control population group, especially the Indian and White population groups, the chance is high that one ends with very small numbers of these two population groups in a sample. The method that Ask Afrika uses, is that for EAs with dominant White and Indian (and one can add Coloured) population groups, only persons from that specified dominant population group can be interviewed in that EA. Since persons from other population groups are thus 'excluded' in these EAs, the fieldworkers must keep a record of the number of households that are 'skipped' because of a "wrong" population. To calculate the design weight scientifically in these EAs, these 'skip' numbers are included in the formula of the household design weight. This is a statistically sound and practically proven method with very satisfactory results.

Population group is a stratification variable and is automatically built into the design weight. Population group is also part of the RIM weighting and will be representative of the population figures of all individuals 15 years and older in communities 8000+. To note, all respondents with the predominant population group within the EA's will be given an equal or know opportunity to be included in the sample

2.15 Substitution and response rates

In many surveys, non-response is handled by substituting households that are available or willing to respond. The substitution procedure is biased in the same way as non-response cases are. There is nothing to be gained in statistical accuracy by substitution over what would be achieved by over-sampling to account for non-response in the first place. The substitution method does, however, achieve the targeted sample size, thus rendering it unnecessary to over-sample for non-response. In this way sampling reliability is the same for the two methods of dealing with non-response, because the ultimate sample size in terms of completed interviews is the same (Turner, 2003).

For cost and pragmatic reasons, we believe the house to the left or right method (x+1, x-1) is suitable for the OMC and does not introduce any additional bias to the survey.

Reasons for substituting:

- The interviewer gets to the specified address and there is no household on that stand.
- The interviewer contacts the address three times to set up an appointment and each time there is no one at home.
- The interviewer attempts at least three times to contact the selected respondent, but to no avail.
- The interview is refused by the respondent.
- The interviewer cannot gain access to security estate after all attempts to obtain the interview failed.

The higher the response rate the better generally.

2015C2016C Response rates

Province	Original %	Substitute %
Eastern Cape	84%	16%
Free State	83%	17%
Gauteng	80%	20%
KwaZulu-Natal	86%	14%
Limpopo	77%	23%
Mpumalanga	83%	17%
North West	80%	20%
Northern Cape	84%	16%
Western Cape	80%	20%
Grand Total	82%	18%

The low substitution rate is contributed to working with the land-use classification per interviewing point from GTI and a controlled sign-off process by Management.

Ask Afrika experienced refusal of access to several security estates, boomed areas and complexes. Due to the number of refusals from these types of areas, the procedure was to contact the body corporate or facility care taker and explain the reason for our interest. This led to completed interviews particularly in complexes. In certain cases that the body corporates required an Ask Afrika manager to speak to them it was handled on a case to case basis.

Estates/complexes allowed interviewers entry into the estate and in a few estates/complexes interviewers were asked to complete interviews with respondents outside of the estate gate (if practical). Interviewers would approach the residents at the gate, request for an immediate interview (given that the KISH grid selected the resident) or arrange for an appointment. This allowed interviewers to complete successful interviews with the respondents as they had their contact details and could gain entry on the specified dates.

Affluent areas and boomed-off communities could not be easily interviewed as respondents were reluctant to participate. The success in these areas were contributed to the type of interviewer used relevant to the area.

In addition to having a clear view on the type of dwelling the interviewing points fall on and the panning around gaining access, strict control regarding approval on substitution is also being followed. Substitution is signed off by Management and only signed-off where a clear execution plan in gaining access is evident.

2.16 Weighting

Due to the differences in population sizes, a two-step process of weighting was implemented after the data collection and data cleaning process:

- Weighting to adjust for the sample design; and
- RIM weighting to adjust for demographics.

For any probability sample, the design weight must be calculated first. Design weights are assigned to make weighted sample records represent the target population as closely as possible. Weights are usually developed in various stages to compensate for:

- unequal inclusion probabilities (design weight);
- non-response;
- non-coverage and skewness resulting from sample design and fieldwork.

After the design weights have been calculated, a second phase of weighting was implemented, namely RIM weighting. RIM weighting adjusts for demographics and corrects for overs or under sampling. Since some population variables will be over/under sampled, it is necessary to adjust 'reduce' the contribution of the smaller variables and 'increase' the contribution of the larger ones.

Adjusting for demographics (age, population group and gender) is necessary because some demographic groups will be over or underrepresented in the sample. It is thus required to bring the sample in line with known population demographics.

Weights are assigned to the respondents records to make the weighted sample records represent the target population as closely as possible. These weights are usually developed in various stages to compensate for unequal inclusion probabilities, non-response and non-coverage, resulting from sample design and fieldwork.

Stratified sampling with disproportionate allocation in the different strata is generally used to obtain a sample with sufficient respondents from smaller subgroups of interest in the population. Such substrata or subgroups are generally defined by province and geographical area.

2.17 Weighting efficiency

It is important to control the range of the weights since extreme weights can significantly increase the variance of estimates. A golden rule implemented in practice is that the ratio between the minimum/maximum with the mean weight should not differ with more than a factor of 2 to 3. There are two main factors that influences weighting efficiency:

1) Disproportionate sampling 2) Collapsing of cells during RIM weighting

- Disproportionate Sampling (it is important to note that weight efficiency should be calculated per primary stratum accordingly to the design). Disproportionate sampling naturally produces a lower weighting efficiency.
- Collapsing RIM weighting variables to smooth the extreme weights. *Collapsing of weighting cells produces a higher weighting efficiency.*

Weighting efficiency since 2015A

	2015A	2015B	2015C	2016A	2016B	2016C	2015/2016
Individuals							
Weighting Efficiency Overall %	97%	96%	97%	98%	97%	97%	89%

Industry Norm: Weight efficiency percentage between 77.8% and 100%

3. Briefing and Training

3.1 Introduction

The field teams are trained at the start of February each year. The training starts with the existing supervisors / suppliers that have worked on OMC for the last couple of waves – this was deliberately done to get the teams with the least amount of training required into field first. The new teams were trained after the experienced teams to allow ample time for first time training on OMC.

Over the past 4 waves, twenty (20) field supervisors/outsourcer companies as well as two hundred and fifty-five (255) interviewers on average worked on OMC. The field supervisors/suppliers were responsible to evaluate the interviewers' performance and oversaw the quality of each interviewer's work.

3.2 Fieldworker briefing and training

Field training and briefings took place for each wave, one to two weeks prior the data collection in-field date.

Training schedule

Within these sessions, interviewers and supervisors were briefed on the objectives of the study as well as being trained on the following data collection aspects:

- Basic research principles;
- The questionnaire and understanding of interviewer instructions and skips;
- How to read and interpret the maps;
- How to use the Kish grid to select a specific respondent;
- The process to be followed in the case of non-response;
- Substitution rules to be followed;
- How Geofencing works and the settings of the tablets required
- The key questions that interviewers generally struggle with

The following steps were taken to ensure that interviewers were sufficiently skilled and trained to conduct the OMC surveys:

- Interviewers were briefed by Ask Afrika Project Managers, Regional Managers, and Field Supervisors
- Interviewers conducted pilot interviews with Respondents under supervision;
- Supervisors evaluated each interviewer's performance and delivered further training, where it was required;
- Qualified interviewers conducted independent fieldwork.

3.3 Data collection

Data collection for each annual A wave commence in February, whereby the annual B wave commence in July. Weekly schedules are set up to which the regional managers, supervisors and interviewers had to adhere. We also implemented an approach of first focusing on the more challenging EA's to ensure challenging areas are given the required time to be successfully completed.

3.4 Data quality control processes

The data capture process included the following main activities:

1. Questionnaire changes and formatting
2. Printing of training materials
3. Distribution
4. Fieldwork
5. Quality assessment

3.5 Quality assessment

1. Geo-fencing

Going to the right interviewing point is the first line of quality control Ask Afrika employ when in field. To ensure this, all points are geo-fenced with a 150m radius.

What is Geo-fencing

- It is a feature in Ask Afrika's CAPI software program that uses the global positioning system (GPS) to define geographical boundaries.

Benefits of Geo-fencing

- Ensure the interview is taking place at the correct location
- No interview will be able to activate if the interviewer is not within 150 meters of the interviewing point
- Assurance that the whole interview is taking place within the selected area

The data processing team verified all interviewing point coordinates against the coordinates uploaded during the activation of the interview.

2. Covert recordings

At the start of the OMC2016B data collection period, Ask Afrika implemented a new quality control measure, namely the covert recordings. This means that predetermined questions in the interview is voice recorded.

Benefits of voice recordings:

- Quality control interview captured data against the actual respondent voice responses
- Determine if interview is taking place
- Understanding of questions

Questions are changed throughout the data collection period.

The supervisors and team leaders were responsible for the first line of quality assessments. Once the supervisors initially approved an interview, the Ask Afrika data processing team listened to 15% covert recordings per interviewer to ensure the validity of the interviews.

The supervisors thoroughly checked the questionnaire for:

- The respondent selection procedure and whether it was correctly completed
- Missing values, missing trip information and
- The flow and routing instructions provided in the questionnaire

During the OMC2016B data collection period the status of the covert recording quality control was as follow:

Row Labels	Approved	Redo	Grand Total
Eastern Cape	144	4	148
Free State	77		77
Gauteng	337	47	384
KZN	153	2	155
Mpumalanga	81	7	88
Northern Cape	25		25
Western Cape	151	11	162
Limpopo	21	1	22
North West	48	3	51
Total	1037	75	1112

The unapproved interviews were sent back to field for corrections.

The process followed are as follow:

- Strategic questions (which requires interviewer/respondent interaction) are assigned as "Recordings" questions on Dooblo
- During fieldwork period, covert audio recordings are activated on the tablet devices for the specified questions
- These recordings are uploaded together with the data once the interviews are completed with their interviews
- 15% sample is drawn of every interview's work that is indicated as "Initially Approved"
 - **Initially Approved** interview status means that Supervisors have reviewed the data/recordings and are happy with the fieldwork
- The DP team reviews the recordings and provide feedback on the quality and authenticity of the recordings.
- The DP team's feedback is collected, and each survey is given a QA rating (%):
 - **Approve:** Clear audio evidence that the interview is conducted per brief, and that the interview is authentic.

- **Investigate:** Any instances where interviewer quality of interview authenticity is questioned is sent back to supervisors for internal investigation.
- **Fail:** Unmistakable evidence that the interview quality or authenticity cannot be verified is rejected(Cancelled), and calls for a re-do.
- Should an interview be coded as “failed”, a further 50% of the interviewer's work is added to the sample for recording review.

3. Call Backs

Zero and one trips

Call backs are made on all interviews where respondents indicated that they made no trips or only one trip in the past 7 days. On average a total of n=870 call backs are made per wave to gain more trip information from respondents. It was found that respondents are more comfortable to provide additional trip destinations during the call backs due to the interviewer-respondent relationship which was established during the interview.

4. Methodology compliance

A few methodology compliance activities are also tracked and monitored on a weekly basis while in-field. These checks include:

- Monthly sample compliance – do the interviewers keep to the monthly sampling plan
- Dominant racial group – do the interviewers keep to the dominant racial group per EA
- Weekly day of week/time interviewing – is there a spread of interviews throughout the day and week/weekend
- High income locked EA's – are the interviewers' compliant
- Interviewing length – flag all interviews with an interviewer length < 60minutes
- 100% coordinate check with house addresses (visiting points)
- Duplicated home address checks
- Duplicated contact detail checks
- Kish grid compliance

5. Address verification

All OMC destination address fields are verified on Google Earth. A total of 111,493 addresses were verified for OMC2015C2016C. This verification process is to ensure:

- That the destination address exists
- That the correct information is provided
- That the full address fields were provided
- To improve the address quality

The OMC address quality over the past 4 waves can be seen in the table below:

	15A	15B	16A	16B	15C16C
Main place/Sub place	14%	20%	7%	9%	13%
Main place/Sub place/Street Name	35%	37%	45%	31%	37%
Main place/Sub place/Street Name/Street #	50%	43%	48%	60%	50%

6. Data checks

The final leg of the quality control phases is the data checks which is the most intense phase of all the quality control measures.

4. Data analysis

4.1 Data tracking and trip totals

Data were monitored on a weekly basis for the tracking of progress of field surveyors and the overview of the approved data.

Weekly reports were created that included the monitoring of the following:

- Number of completed interviews
- Number of respondents indicated that they do not travel and the reasons for not travelling
- Number of respondents indicated that they travelled
 - Overall
 - Per province
 - Per trip type
- Number of trips per mode of transport
- Destination Types selected by respondents
- Mode of transport used to travel in relation to the Destination selected
- Mode of transport used per Province
- Mini bus taxi versus taxi rank
- Address level information to maximise number of full addresses

Monitoring of the data on a weekly basis enable the team to track the progress of the project and identify and pre-empt any problems that could arise in the project relating to the data and field workers.

The table below reflects the final OMC travelled population, destinations visited in past 7 days, trip totals and average number of trips taken after data cleaning and address validations:

OMC2015/2016										
	Total	EC	FS	GP	KZN	LP	MP	NW	NC	WC
Total 2015A	7764	724	480	3000	1226	152	384	320	160	1318
Total 2015B	7585	712	459	2812	1220	140	396	327	160	1359
Total 2016A	7775	690	475	3067	1206	143	360	328	155	1351
Total 2016B	7509	631	457	3002	1182	134	345	308	146	1304
Total 2015/2016	30633	2757	1871	11881	4834	569	1485	1283	621	5332
% - Not travelled 2015A	7%	10%	10%	8%	6%	5%	8%	15%	6%	2%
% - Not travelled 2015B	1%	1%	0%	2%	0%	3%	0%	1%	1%	1%
% - Not travelled 2016A	1%	2%	2%	3%	0%	1%	0%	1%	0%	0%
% - Not travelled 2016B	1%	3%	2%	2%	0%	1%	0%	3%	1%	1%
% - Not travelled 2015/2016	3%	4%	4%	4%	2%	3%	2%	5%	2%	1%
Trip Destinations 2015A	23278	2366	1251	8567	3654	473	1175	811	503	4478
Trip Destinations 2015B	29550	2784	1620	10841	4647	522	1629	1197	607	5703
Trip Destinations 2016A	29826	2516	1588	11433	4604	470	1427	1173	563	6052
Trip Destinations 2016B	28839	2242	1814	11652	4569	501	1465	1056	520	5020
Trip Destinations 2015/2016	111493	9908	6273	42493	17474	1966	5696	4237	2193	21253

Completes per District Municipality will yield a minimum of n=100 per District Municipality at the end of the 3-year OMC cycle, end of OMC2017. The totals per District Municipality at the end of the two-year cycle, OMC2015/2016 are as follow:

Row Labels	OMC2015A	OMC2015B	OMC2016A	OMC2016B	OMC2015/2016
Alfred Nzo	4				4
Amajuba	32	36	36	32	136
Amathole	4	8	4		16
Bojanala	120	120	116	111	467
Buffalo City	204	192	202	190	788
Cacadu	48	28	20	4	100
Cape Winelands	136	132	124	114	506
Capricorn	92	84	100	90	366
Central Karoo		8	4		12
Chris Hani	16	28	12	14	70
City of Cape Town	1054	1051	1059	1031	4195
City of Johannesburg	1085	1006	1123	1094	4308
City of Tshwane	572	536	598	597	2303
Dr Kenneth Kaunda	164	164	168	162	658
Dr Ruth Segomotsi Mompati	24	12	28	12	76
Eden	88	120	120	115	443
Ehlanzeni	40	52	40	46	178
Ekurhuleni	645	641	640	648	2574
eThekweni	886	884	883	861	3514
Fezile Dabi	24	24	28	28	104
Frances Baard	88	104	91	94	377
Gert Sibande	136	132	116	115	499
Greater Sekhukhune	4		4		8
iLembe	12	16	16	32	76
Joe Gqabi		4	4		8
John Taolo Gaetsewe	12	8	8	8	36
Lejweleputswa	84	88	79	79	330
Mangaung	348	331	348	334	1361
Mopani	12	4		4	20
Namakwa	8		8		16
Nelson Mandela Bay	440	444	436	423	1743
Ngaka Modiri Molema	12	31	16	23	82
Nkangala	208	212	204	184	808
O.R.Tambo	8	8	12		28
Overberg	16	20	24	16	76
Pixley ka Seme	16	20	16	12	64
Sedibeng	393	376	371	375	1515
Sisonke	16	4	12		32
Z F Mgcawu	36	28	32	32	128
Thabo Mofutsanyane	24	12	20	16	72
Ugu	36	24	32	24	116
UMgungundlovu	180	188	176	181	725
Umkhanyakude			4		4
Umzinyathi	12	4	4	4	24

Uthukela	12	28	8	24	72
Uthungulu	28	28	31	24	111
Vhembe	16	20	11	12	59
Waterberg	28	32	28	28	116
West Coast	24	28	20	28	100
West Rand	305	253	335	288	1181
Xhariep		4			4
Zululand	12	8	4		24
Grand Total	7764	7585	7775	7509	30633