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General Household Survey, Selected development indicators, 2014

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List of abbreviations

EC Eastern Cape

FS Free State

GP Gauteng

KZN KwaZulu-Natal

LP Limpopo

MP Mpumalanga

NC Northern Cape

NW North West

WC Western Cape

RSA South Africa

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1. Introduction and methodology

1.1 Background

The execution of the General Household Survey (GHS) in 2009 was preceded by extensive stakeholder consultation. The main objective of the consultation was to align the questionnaire and survey process more with user needs and adjust the questionnaire accordingly. The process yielded the following results:

- Specific linkages were established between the monitoring and evaluation indicators of each government department and the GHS questionnaire.
- It was found that in some instances the GHS was the only or main source of this information, but in other cases the various departments use the GHS information to verify their information from administrative records and/or other sources.
- Questions were modified and/or added where necessary.
- The users expressed a need for an earlier release of the indicator information to enable them to more effectively report on their activities.
- Several departments indicated that they did not have staff capable of analysing the GHS data and engaging consultants for this purpose was not always possible as a result of funding constraints.

It was therefore decided to develop a new GHS release specifically aimed at reporting on the various development indicators measured and/or verified by means of this particular survey instrument. The first report was released in early May 2010 as a discussion document. The current report is the fifth in the series and summarises the data for each province and the country as a whole as measured by GHS 2014.

1.2 Methodology and fieldwork

A multi-stage, stratified random sample was drawn using probability-proportional-to-size principles. First-level stratification was based on province and second-tier stratification on district council. Field staff employed and trained by Stats SA visited all the sampled dwelling units in each of the nine provinces. During the first phase of the survey, sampled dwelling units were visited and informed about the coming survey as part of the publicity campaign. The actual interviews took place four weeks later. A total of 31 486 sampled households was visited across the country and 25 363 (including multiple households) were successfully interviewed during face-to-face interviews.

Two hundred and thirty-three enumerators (233) and 62 supervisors and coordinators participated in the survey across all nine provinces. An additional 27 quality assurors were responsible for monitoring and ensuring questionnaire quality. National training took place over a period of four days and provincial training was done one week later in 9 provinces for 5 days. Thereafter district training was executed in 40 localities for a period of six days.

For a more detailed discussion on sampling and fieldwork please refer to the Technical notes as described in Section 3.

1.3 Data revisions

The questionnaires were scanned and processed. Editing and imputation was done using a combination of manual and automated editing procedures. Details about this process can be found in the GHS 2014 report (P0318). Section 4 describes the methods used to calculate each indicator value. When calculating percentages, missing and do not know values were discarded from the denominator unless otherwise stated.

Statistician-General

2. Indicator tables

2.1 Agriculture

Table 2.1: Agriculture indicators by province

In the state of					Pro	ovince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
% of households who engaged in agricultural activities during the past 12 months	3,5	34,7	12,8	21,5	22,4	13,7	3,7	29,8	46,8	18,3
% of households involved in:										
Livestock production	0,3	27,2	8.0	2,2	12,7	9,6	0,4	9,3	13,2	8,2
Poultry production	0,0	22,9	1,8	3,0	10,0	6,0	0,4	8,1	8,8	6,4
Grains and food crops	0,2	20,7	0,4	3,0	12,2	1,1	0,2	17,0	37,2	9,5
Industrial crops	0,0	0,0	0,2	0,1	0,2	0,0	0,0	0,0	0,2	0,1
Fruit and vegetable production	3,1	16,5	5,1	19,5	6,6	3,8	3,2	20,6	22,9	9,4
Fodder, grazing/pasture or grass for animals	0,0	0,3	0,2	0,6	0,3	0,1	0,1	0,2	0,5	0,2
Fish farming/aquaculture	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0
Forestry	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Game farming	0,0	0,0	0,1	0,0	0,0	0,1	0,0	0,0	0,0	0,0
Other	0,1	0,2	0,0	0,0	0,1	0,0	0,0	0,0	0,2	0,1

Table 2.1: Agriculture indicators by province (concluded)

					Prov	ince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	МР	LP	RSA
% of households involved in different crop planting	g activities:									
Farm land (communal or private)	0,3	2,1	1,2	1,1	6,1	0,4	0,3	2,4	4,4	2,1
Backyard garden	3,0	25,1	4,7	19,1	11,0	4,0	3,0	23,2	40,2	12,8
School garden	0,0	0,1	0,0	0,1	0,2	0,1	0,1	0,1	0,3	0,1
Communal garden	0,0	0,1	0,0	0,0	0,6	0,0	0,0	0,5	0,1	0,2
On verges of roads and unused public/ municipal land	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,3	0,1
Other	0,0	0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,2	0,0
									1	
% of households who produce crops on 1 or more hectares	0,1	0,4	0,4	0,2	1,0	0,3	0,1	0,6	1,0	0,4
% of households who own the land on which they produce crops	87,2	28,7	95,8	98,9	60,8	94,3	89,8	95,6	86,2	72,7
% of households who sell most of the agricultural produce they produce	5,3	7,6	29,2	8,5	9,7	22,9	8,6	8,4	4,4	8,6
% of households involved in agriculture who received support from DOA during the past 12 months	0,6	27,8	15,4	3,1	22,1	10,8	1,7	8,2	2,1	13,0
% of households classified as:										
Food access adequate	75,0	71,2	71,7	79,4	74,6	61,3	86,5	73,6	91,7	78,5
Food access inadequate	17,9	23,2	17,9	16,0	20,4	26,3	11,2	19,5	7,5	16,6
Food access severely inadequate	7,2	5,6	10,5	4,6	5,0	12,4	2,4	7,0	0,8	4,9

2.2 Education

Table 2.2: Education indicators by Province

Indicators					Pro	vince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Age-specific Enrolment Ratio (ASER)										
Primary School	0,4	0,7	0,1	1,6	0,8	1,2	0,7	0,8	0,5	0,7
All	5,5	5,6	6,7	3,6	4,0	6,5	3,6	3,8	2,5	4,3
Repetition rate (RR) Grd 10	10,7	19,9	19,3	17,3	17,3	32,8	13,5	19,7	35,0	20,9
Repetition rate (RR) Grd 11	4,2	20,4	14,7	18,8	18,9	24,4	12,0	21,2	23,7	17,7
Repetition rate (RR) Grd 12	6,7	6,1	3,9	10,3	3,2	10,9	2,3	16,4	9,9	6,5
% of 16-18-year-olds who attend any institution	81,1	82,6	76,3	91,4	86,5	79,9	87,5	86,3	93,2	86,1
% of children with special needs aged 7–15 NOT enrolled in educational institutions	4,8	5,5	1,5	11,0	5,2	6,1	7,7	7,8	7,6	7,0
% of learners in public schools that do not pay school fees	43,2	83,4	60,4	78,4	64,8	69,6	50,3	68,0	94,6	68,5
% of learners in schools receiving social grants	42,2	66,5	62,1	58,2	65,1	62,6	37,9	65,2	61,9	57,4
Numbers of learners enrolled (16–18) in any institution N ('000)	241	408	54	159	585	166	493	204	396	2705

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Table 2.2: Education indicators by Province (concluded)

Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
% of learners in schools who walk for more than 30 minutes to the nearest school of its kind	1,1	14,8	8,9	6,4	25,1	9,3	3,6	8,4	11,0	12,7
% of learners in public schools benefiting from free scholar transport	3,5	2,5	4,3	0,9	0,8	1,0	1,6	5,0	0,3	1,8
% of learners in public ¹ schools benefiting from the nutrition programme	49,8	89,4	83,2	77,6	77,1	83,6	50,6	86,5	94,0	75,8
% of learners attending school who reported incidents of corporal punishment	2,8	21,0	11,9	11,6	21,1	10,5	3,3	5,8	12,0	12,4
Adult literacy rates (persons 20 years and older with less than Grade 7 as highest level of education)	9,5	23,5	21,3	17,5	19,0	22,7	7,7	21,6	22,1	16,0

2.3 Environmental indicators

Table 2.3: Environmental related indicators by Province

Indicators					Prov	ince				
mulcators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Number of households using borehole water N ('000)	10	12	9	21	54	94	98	51	142	491
Number of households using wood/coal for cooking N ('000)	13	225	16	31	394	86	52	217	584	1617
% of households whose refuse is removed by a local authority or co,	89,4	44,7	70,9	81,0	56,1	58,7	90,1	40,3	21,8	66,1
% of households who collect waste for recycling	4,3	5,3	4,2	2,9	3,0	2,8	3,5	2,8	1,2	3,3
% of households who sell waste for recycling	17,8	84,1	80,8	65,1	21,6	61,2	42,5	87,5	71,3	50,3
% of households who feel that they are exp	periencing pro	blem with:								
Littering	22,2	32,0	35,9	42,8	32,4	30,2	30,2	53,1	28,0	32,2
Water pollution	11,5	21,4	13,2	20,5	19,3	15,6	16,8	14,3	14,5	16,8
Air pollution	10,5	16,6	20,7	20,1	18,3	21,9	21,5	29,3	21,0	19,6
Land degradation	13,4	44,7	27,7	51,2	26,2	51,5	25,9	66,0	40,4	34,4
Excessive noise pollution	17,2	13,3	13,1	20,8	8,4	12,7	20,2	17,3	26,1	16,8
% of households who have used during pas	st 12 months :									
Pesticides in dwelling	33,3	57,5	49,5	29,6	46,9	50,7	50,7	55,5	49,1	47,9
Pesticides in garden	15,4	18,6	10,8	6,3	9,0	8,7	17,0	14,5	12,7	13,5
Herbicides/weed killers	10,7	8,8	5,1	4,7	6,2	4,6	12,3	10,8	4,4	8,6

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2.4 Health/MRC/Health Systems Trust

Table 2.4: Health Indicators by Province

	Province												
Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA			
% of orphans aged 7–18 years attending													
educational institutions	89,2	91,4	92,5	91,2	95,2	92,3	93,5	94,0	96,5	92,7			
% of people 20 years and older with no													
schooling	2,1	5,6	6,8	4,3	7,2	7,7	2,1	9,4	10,2	5,3			
% of persons with medical aid coverage	26,3	10,5	19,8	17,9	12,9	14,8	28,2	14,9	8,6	18,1			
% of households for which the usual place of consultation is a public													
facility	53,0	79,6	70,1	67,8	79,0	72,0	60,8	74,1	84,6	53,0			

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2,5 Human settlement

Table 2.5: Housing indicators by Province

In Product					Prov	ince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	МР	LP	RSA
% of households who live in an RDP or state-subsidised house	20,5	13,1	17,5	28,0	13,2	16,5	13,2	14,4	14,1	15,3
% of households receiving a housing subsidy from the state	17,1	10,1	14,2	25,2	12,6	14,3	12,1	11,9	13,4	13,6
% of households living in informal dwellings/tents/caravans	14,8	7,8	10,8	14,3	8,1	21,0	19,2	7,6	4,0	13,0
% of households who state that the condition of the walls of their state provided/subsidised housing is weak/very weak	20,4	33,4	17,2	16,2	13,2	14,7	7,6	7,7	9,1	14,5
% of households who state that the condition of the roof of their state provided/subsidised housing is weak/very weak	19,6	33,9	19,9	13,1	15,2	11,7	5,9	8,3	9,8	13,9
% of households who pay rent for a state provided/RDP house	9,7	10,8	6,3	7,3	8,5	7,2	9,2	7,6	4,9	8,4
% of households who fully own their dwellings	42,7	65,6	62,2	57,0	67,0	65,2	33,6	68,3	76,1	54,8

2.6 Social development

Table 2.6: Social development indicators by Province

Lud'ana					P	rovince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Number of persons 60 years and older N('000)	542	573	106	231	799	273	1 048	288	429	4 290
Number of households with at least one person 60 years and older N ('000)	394	481	83	200	660	236	802	248	372	3477
% of persons 60 years and older who are disabled (UN definition)	14,8	19,1	25,2	26,0	19,2	24,1	16,2	15,9	11,2	17,7
% of persons 60 years and older who are severely disabled	11,4	11,9	14,6	14,5	10,0	16,0	8,7	9,6	6,8	10,5
% of people 60 years and older who received old-age grant	51,6	82,7	75,7	74,8	76,3	79,4	44,8	75,7	87,4	67,5
% of people 60 years and older who received social grants	52,2	82,7	75,7	75,1	76,5	79,0	45,1	75,3	87,2	67,6
% of households with persons 60 years and older	r and classi	ified as:								
Food access adequate	74,5	70,4	70,7	78,2	73,6	60,4	85,5	72,6	90,9	77,6
Food access inadequate	16,4	23,1	18,2	16,0	20,5	25,4	11,7	19,0	8,0	16,6
Food access severely inadequate	9,1	6,6	11,1	5,8	5,9	14,2	2,8	8,4	1,1	5,9
# of households classified as N ('000):										
Food access adequate	1 281	1 193	220	691	1 960	710	3 848	848	1 348	12 100
Food access inadequate	283	391	57	141	547	299	528	222	118	2 586
Food access severely inadequate	156	111	35	51	157	167	125	98	17	917
% of poor households with children aged 7–18 who do not spend money on school fees	66,9	85,4	69,2	88,0	72,7	70,2	70,3	76,2	95,5	79,1
Number of households classified as poor using household monthly expenditure of below	00,3	03,4	03,2	00,0	, , , ,	70,2	70,3	70,2	33,3	73,1
R2 500 as the cut-off N ('000)	499	1 098	177	501	1597	690	1635	699	1 154	8 126
Number of households classified as poor using household monthly expenditure of below R2 500 as the cut-off and who have										
children aged 7–18 N ('000)	197	549	77	246	758	264	561	360	623	3 635

2.7 Transport

Table 2.7: Transport indicators by Province

Indicators					Provi	ince				
mulcators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
# of passenger trips made per month with e	each public trai	nsport mode I	N ('000):							
Minibus/taxi	4 838	4 314	706	2 770	10 306	3 367	21 035	3 122	2 838	53 296
Bus	2 245	526	97	657	1 237	997	2 641	2 224	843	11 467
Train	3 000	173	7	5	440	85	3 018	23	33	6 784
% of the household's income spent on trans	sport per mont	h								
1–10%	68,2	54,5	69,4	59,2	40,0	54,7	47,9	54,1	55,1	51,8
11–20%	18,9	23,9	16,7	22,2	27,9	23,9	24,7	23,6	24,0	24,1
21–30%	6,4	8,4	7,0	7,4	12,2	6,2	11,3	8,9	9,5	9,7
30% or more	6,5	13,2	6,9	11,2	19,9	15,2	16,2	13,3	11,4	14,4
% of learners travelling for longer than 30 minutes to an education institution	13,2	17,5	10,7	12,4	25,2	12,1	15,6	14,8	15,7	17,2
% of workers travelling for longer than 30 minutes to their place of work	35,7	18,3	17,9	25,3	31,1	27,0	45,6	35,6	30,9	34,9

2.8 Water and sanitation

Table 2.8: Water and sanitation variables by Province

L. d'annous					Prov	ince				
Indicators	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Number of households with water supply										
infrastructure of RDP standard or higher										
N ('000)	1 693	1 200	293	853	1 985	946	4 352	990	1 076	13 388
Number of households with water supply										
infrastructure less than RDP standard N										
('000)	27	495	19	30	679	230	149	178	408	2 215
Number of households with no water										
supply infrastructure N ('000)	14	309	13	41	354	150	160	150	302	1 494
Consumer perception index of water quality	N ('000)							<u> </u>		
Safe to drink	1 693	1 437	265	750	2 400	1 081	4 350	986	1 358	14 319
Clear	1 683	1 451	261	719	2 415	1 062	4 343	999	1 357	14 289
Good in taste	1 673	1 391	262	725	2 413	1 062	4 332	961	1 296	14 116
Free from bad smells	1 679	1 531	272	733	23 98	1 081	4 323	1 007	1 352	14 376
Number of consumers who experienced										
interruptions of 48 hours or more at a										
time N ('000)	40	437	68	291	577	337	307	602	571	3 229
Number of WSAs whose consumers have										
experienced a cumulative interruption										
of more than 15 days for the financial										
year N ('000)	27	279	52	200	409	280	150	505	469	2 372
Number of households with access to a										
functioning basic sanitation facility										
(strategic framework) N ('000)	1 625	1 322	261	739	2 012	783	4 073	750	797	12 361

Table 2.8: Water and sanitation variables by province (concluded)

Indicators	Province									
	wc	EC	NC	FS	KZN	NW	GP	MP	LP	RSA
Number of households using bucket toilets N ('000)	49	13	11	53	4	5	54	2	5	196
Number of households with substandard toilet facility N ('000)	64	238	33	120	504	335	355	335	605	2 589
% of households with substandard toilet facility	5,2	28,8	18,3	16,7	26,1	30,0	9,8	37,3	50,0	22,1
Number of households with no sanitation facility N ('000)	28	132	17	17	124	55	31	81	74	558
Number of poor households receiving free basic sewerage and sanitation N ('000)	215	171	49	195	229	90	669	62	45	1 726
% of poor households receiving free basic sewerage and sanitation	53,4	56,5	48,9	67,1	57,3	44,1	64,3	44,6	51,5	54,2
% households with access to a functioning basic sanitation facility (strategic framework)	96,2	84,8	88,6	86,0	80,0	70,0	92,0	69,1	56,8	82,7

Table 2.9: Basic household and population data used for benchmarking the GHS 2014

Indicators	Province									
Indicators	WC EC NC				KZN	NW	GP	МР	LP	RSA
# of persons N ('000)	6 130 791	6 655 658	1 172 624	2 757 924	10 571 312	3 649 660	12 996 205	4 181 594	5 585 234	53 701 003
# of households N ('000)	1 720 396	1 694 718	311 818	883 495	2 663 345	1 176 579	4 500 835	1 167 869	1 483 196	15 602 251

3 Technical notes

3.1 Target population

The target population of the survey consists of all private households in all nine provinces of South Africa and residents in workers' hostels, The survey does not cover other collective living quarters such as students' hostels, old-age homes, hospitals, prisons and military barracks, and is therefore only representative of non-institutionalised and non-military persons or households in South Africa,

3.2 Sample design

The sample design for the GHS 2014 was based on a master sample (MS) that was originally designed for the Quarterly Labour Force Survey (QLFS) and was used for the first time for the GHS in 2008, This master sample is shared by the Quarterly Labour Force Survey (QLFS), General Household Survey (GHS), Living Conditions Survey (LCS), Domestic Tourism Survey (DTS) and the Income and Expenditure Survey (IES),

The master sample used a two-stage, stratified design with probability-proportional-to-size (PPS) sampling of PSUs from within strata, and systematic sampling of dwelling units (DUs) from the sampled primary sampling units (PSUs), A self-weighting design at provincial level was used and MS stratification was divided into two levels, Primary stratification was defined by metropolitan and non-metropolitan geographic area type, During secondary stratification, the Census 2001 data were summarised at PSU level, The following variables were used for secondary stratification; household size, education, occupancy status, gender, industry and income,

Census enumeration areas (EAs) as delineated for Census 2001 formed the basis of the PSUs, The following additional rules were used:

- Where possible, PSU sizes were kept between 100 and 500 dwelling units (DUs);
- EAs with fewer than 25 DUs were excluded;
- EAs with between 26 and 99 DUs were pooled to form larger PSUs and the criteria used was 'same settlement type';
- Virtual splits were applied to large PSUs: 500 to 999 split into two; 1 000 to 1 499 split into three; and
 1 500 plus split into four PSUs; and
- Informal PSUs were segmented,

A Randomised Probability Proportional to Size (RPPS) systematic sample of PSUs was drawn in each stratum, with the measure of size being the number (#) of households in the PSU, Altogether approximately 3 080 PSUs were selected, In each selected PSU a systematic sample of dwelling units was drawn, The number of DUs selected per PSU varies from PSU to PSU and depends on the Inverse Sampling Ratios (ISR) of each PSU,

3.3 Allocating sample sizes to strata²

The randomised PPS systematic sampling method is described below, This procedure was applied independently within each design stratum,

Let N be the total # of PSUs in the stratum, and the # of PSUs to be selected from the stratum is denoted by n , Also, let x_i denote the size measure of the PSU i within the stratum, where $^i=1,2,3,...,N$. Then, the method for selecting the sample of n PSUs with the Randomised PPS systematic sampling method can be described as follows:

Step 1: Randomise the PSUs within the stratum

² Source: Sample Selection and Rotation for the Redesigned South African Labour Force Survey by G. Hussain Choudhry, 2007.

The list of N PSUs within the stratum can be randomised by generating uniform random between 0 and 1, and then by sorting the N PSUs in ascending or descending order of these random #s, Once the PSUs have been randomised, we can generate permanent sequence #s for the PSUs,

Step 2: Define normalised measures of size for the PSUs

We denote by X_i the measure of size (MOS) of PSU i within the design stratum, Then, the measure $X = \sum_{i=1}^N x_i$ of size for the stratum is given by $X = \sum_{i=1}^N x_i$, where $X = \sum_{i=1}^N x_i$, where $X = \sum_{i=1}^N x_i$, where $X = \sum_{i=1}^N x_i$ is the total # of PSUs in the design stratum, Then, $X = \sum_{i=1}^N x_i$ is the relative size of the PSU i in the stratum, and $X = \sum_{i=1}^N x_i$ for all strata, It should be noted that the value of $X = \sum_{i=1}^N x_i$, which is the selection probability of PSU i must be less than one,

Step 3: Obtain inverse sampling rates (ISRs)

Let R be the stratum inverse sampling rate (ISR), The stratum ISR is the same as the corresponding provincial ISR because of the proportional allocation within the province, It should also be noted that the proportional allocation within the province also results in a self-weighting design,

Then, the PSU inverse sampling rates (ISRs) are obtained as follows:

First, define N real #s $Z_i = n \times p_i \times R$; $i = 1, 2, 3, \dots, N$, It is easy to verify that $\sum_{i=1}^N Z_i = n \times R$, Next, round the N real #s Z_i ; $i = 1, 2, 3, \dots, N$ to integer values R_i ; $i = 1, 2, 3, \dots, N$ such that each R_i is as close as possible to the corresponding Z_i value and the R_i values add up to $n \times R$ within the stratum, In other words, the sum of the absolute differences between the R_i and the corresponding Z_i values is minimised subject to the constraint that the R_i values add up to $n \times R$ within the stratum, Drew, Choudhry and Gray (1978) provide a simple algorithm to obtain the integer R_i values as follows:

Let "d" be the difference between the value $n \times R$ and the sum $S = \sum_{i=1}^{N} \left[Z_i \right], \text{ where } \left[\cdot \right] \text{ is the integer}$ function, then R_i values can be obtained by rounding up the "d" Z_i values with the largest fraction parts, and by rounding down the remaining $\left(N - d \right)$ of them, It should be noted that the integer sizes R_i ; i = 1, 2, 3, ..., N are also the PSU inverse sampling rates (ISRs) for systematic sampling of dwelling units,

Step 4: Obtain cumulative ISR values

We denote by C_i ; i=1,2,3,...,N the cumulative ISRs of the PSUs within the stratum, It should be noted that the PSUs within the stratum have been sorted according to the sequence #s that were assigned after the randomisation, Then, the cumulative ISRs are defined as follows:

$$C_1 = R_1,$$

 $C_j = C_{(j-1)} + R_j; \quad j = 2, 3, ---, N.$

It should be noted that the value C_N will be equal to $n \times R$, which is also the total # of systematic samples of dwelling units that can be selected from the stratum,

Step 5: Generate an integer random # r between 1 and R, and compute n integers r_1, r_2, \cdots, r_n as follows:

$$r_1 = r$$
$$r_2 = r_1 + R$$

$$r_3 = r_2 + R$$

•

$$r_i = r_{(i-1)} + R$$

•

$$r_n = r_{(n-1)} + R.$$

Step 6: Select n PSUs out of the N PSUs in the stratum with the labels (sequence #s) # i_1, i_2, \ldots, i_n such that:

$$C_{i_1-1} < r_1 \le C_{i_1}$$

$$C_{i_2-1} < r_2 \le C_{i_2}$$

.

$$C_{i_n-1} < r_n \le C_{i_n}.$$

Then, the n PSUs with the labels i_1, i_2, \ldots, i_n would get selected with probabilities proportional to size, and the selection probability of the PSU i will be given by R_i

3.4 Weighting ³

The sampling weights for the data collected from the sampled households were constructed so that the responses could be properly expanded to represent the entire civilian population of South Africa, The design weights, which are the inverse sampling rate (ISR) for the province, are assigned to each of the households in a province, These were adjusted for four factors: Informal PSUs, Growth PSUs, Sample Stabilisation, and Non-responding Units,

Mid-year population estimates produced by the Demographic Analysis division were used for benchmarking, The final survey weights were constructed using regression estimation to calibrate to national level population estimates cross-classified by 5-year age groups, gender and race, and provincial population estimates by broad age groups, The 5-year age groups are: 0–4, 5–9, 10–14, 55–59, 60–64, and 65 and over, The provincial level age groups are 0–14, 15–34, 35–64, and 65 years and over, The calibrated weights were constructed such that all persons in a household would have the same final weight,

The Statistics Canada software StatMx was used for constructing calibration weights, The population controls at national and provincial level were used for the cells defined by cross-classification of Age by Gender by Race, Records for which the age, population group or sex had item non-response could not be weighted and were therefore excluded from the dataset, No imputation was done to retain these records,

3.5 Sampling and the interpretation of the data

Caution must be exercised when interpreting the results of the GHS at low levels of disaggregation, The sample and reporting are based on the provincial boundaries as defined in December/January 2006, These new boundaries resulted in minor changes to the boundaries of some provinces, especially Gauteng, North West, Mpumalanga/Limpopo and Eastern and Western Cape, In previous reports the sample was based on the provincial boundaries as defined in 2001, and there will therefore be slight comparative differences in terms of provincial boundary definitions,

3.6 Definitions of terms

Household

A household is defined as a person, or group of persons, who occupy a common dwelling unit (or part of it) for at least four nights in a week on average during the past four weeks prior to the survey interview, Basically, they live together and share resources as a unit, Other explanatory phrases can be 'eating from the same pot' and 'cook and eat together',

Persons who occupy the same dwelling unit but do not share food or other essentials, are regarded as separate households, For example, people who share a dwelling unit, but buy food separately, and generally provide for themselves separately, are regarded as separate households within the same dwelling unit,

Conversely, a household may occupy more than one structure, If persons on a plot, stand or yard eat together, but sleep in separate structures (e,g, a room at the back of the house for single young male members of a family), all these persons should be regarded as one household,

Multiple households

Multiple households occur when two or more households live in one sampled dwelling unit, If there are two or more households in the selected dwelling unit and they do not share resources, all households are

³ Source: Sampling and Weighting System for the Redesigned South African Labour Force Survey, by G. Hussain Choudhry, 2007

to be interviewed, The whole dwelling unit has been given one chance of selection and all households located there were interviewed using separate questionnaires,

Household head/Acting household head

The head of the household is the person identified by the household as the head of that household and must (by definition of 'household') be a member of the household, If there is difficulty in identifying the head, the head must be selected in order of precedence as the person who:

- Owns the household accommodation.
- Is responsible for the rent of the household accommodation,
- Has the household accommodation as an allowance (entitlement), etc,
- Has the household accommodation by virtue of some relationship to the owner, lessee, etc, who is not in the household,
- Makes the most decisions in the household,

If two or more persons have equal claim to be head of the household, or if people state that they are joint heads or that the household has no head, then denote the eldest as the head,

Formal dwellings

Include a house on a separate stand, a flat or apartment in a block of flats, a townhouse, a room in a backyard, and a room or flatlet on a shared property,

Informal dwellings

Refer to shacks or shanties in informal settlements or in backyards,

Piped water in dwelling or on site

Includes piped water inside the household's own dwelling or in their yard, It excludes water from a neighbour's tap or a public tap that is not on site,

Electricity for cooking, heating and/or lighting

Refers to electricity from the public supplier,

UN disability

Concentrating and remembering are grouped together as one category, If an individual has 'Some difficulty' with two or more of the 6 categories then they are disabled, If an individual has 'A lot of difficulty' or is 'Unable to do' for one or more category they are classified as disabled,

Severe disability

If an individual has 'A lot of difficulty' or is 'Unable to do' for one or more category they are classified as severely disabled,

Poor household

Poor households have been defined households who spend less than R2 500 per month,

Water of RDP standard or higher

'Piped water in dwelling or in yard' and 'Water from a neighbour's tap or public/communal tap' are also included provided that the distance is less than 200 metres,

Functioning basic sanitation facility

Flush toilet connected to a public sewerage system or septic tank or a pit latrine with ventilation pipe,

3.7 Specific departmental indicators and question linkages

Table 3.1: Agriculture

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
Percentage of households involved in agricultural production activities	National and provincial	8,1	Main source	# of households option 1 in Q8,1/total # of households who responded*100
Percentage of households involved in different agricultural production sectors	National and provincial	8,3	Main source	# of households for each option in Q8,3/total # of households who responded *100
Percentage of households involved in different crop planting activities	National and provincial	8,8a	Main source	# of households for each option in Q8,8a/total # of households who responded *100
Percentage of households who produce crops on 1 or more hectares	National and provincial	8,8b	Main source	# of households who produce crops option 3 to 7 in Q8,8b/total # of households who responded *100
Percentage of households who own the land on which they produce crops	National and provincial	8,8c	Main source	# of households who produce crops option 1 in Q8,8c/total # of households who produce crops*100
Percentage of households who sell most of the agricultural produce they produce	National and provincial	8,5a	Main source	# of households who chose option 1 in Q8,5a/total # of households who are involve in agricultural production activities*100
Percentage of households involved in agriculture who received support from DOA during the past 12 months	National and provincial	8,6a	Main source	# of households who chose option 1 in Q8,6a/total # of households who produce crops*100
Percentage of households classified as: Food access adequate Food access inadequate Food access severely inadequate	National and provincial	7,9–7,12	Main source	Adequate: one or no 'Yes' responses for the first part of Q7,9–Q7,12 Inadequate: 2–3 'Yes' responses for any of Q7,9–Q7,12 Severely inadequate: 4–6 'Yes' responses for any of Q7,9–Q7,12

Table 3.2: Education

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
Age-specific Enrolment Ratio (ASER)	National Provincial UNESCO	1,20, D	Main source	# (persons aged 7–13 attending educational institutions)/ # persons aged 7–13 # (persons aged 7–18 attending educational institutions)/ # persons aged 7–18
Repetition rates (Grades 10–12)	National Provincial UNESCO	1,20, 1,21	Validation Data confrontation	# who attend Grd 10 to Grd 12 and repeating /(# who attend Grd 10 to Grd 12)*100
Enrolment for 16–18-year- olds	National Provincial	1,20, 1,12	Validation Data confrontation	# aged 16–18 who are enrolled in any institution # who attend any institution/(# 16–18 years old) *100
Percentage of children with special needs aged 7–15 not enrolled in educational institutions	National Provincial	1,10, 1,11, 2,8	Main source	(# of persons aged 7-15 with disabilities ⁴ not enrolled)/#aged 7-15 yrs with disabilities)*100
Percentage of learners in public schools that do not pay school fees	National Provincial	1,16	Validation Data confrontation	# persons attend public school who do not pay school fees/# of persons attending public schools*100
Percentage of learners in schools receiving social grants	National Provincial	1,13, 3,1a 3,1b	Main source Data confrontation	# persons attending school who receive any grant/# of persons who attend school and answered the question*100
Percentage of learners who walk for more than 30 minutes to the nearest school	National Provincial	1,15a, 1,15c	Main source	# learners who walk for 30 minutes or more to attend the nearest school/ # of persons attending schools*100
Percentage of learners in public schools benefiting from free scholar transport	National Provincial	1,14	Validation source	# learners who chose option 6 in Q1,15a/ # of persons attending public schools*100
Percentage of learners in public ⁵ schools benefiting from the nutrition programme	National Provincial	1,22b	Validation source	# persons options 2–4 in Q1,22b/# of persons attending Grd 0–Grd 12*100
% of reported incidents of corporal punishment	National Provincial	1,23b	Main source	# persons options 1 in Q1,23b/# of persons attending school (option 2 in Q1,14)
Adult literacy rates	National Provincial	D,1,6	Validation source	# persons options with highest education less than Grd 7/# of persons 20 years and older

⁴ Un definition of disabilities

⁵ Question on public and private school

Table 3.3: Environmental affairs

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
# of households using borehole water	National and provincial	5,12	Supply data towards its calculation	# of households options 3 and 8 for Q5,12
# of households using wood or coal for cooking	National and provincial	5,31	Main source	# households option 5, 6 for Q5,31
Percentage of households whose refuse or rubbish is removed by a local authority or private company	National and provincial	5,32	Main source	# of households options 1–4 in Q5,32/# of households who answered the question*100
Percentage of households who collect waste for recycling	National and provincial	5,34a	Main source	# of households option 1 in Q5,34a /# of households who answered the question*100
Percentage of households who sell waste for recycling	National and provincial	5,34c	Main source	# of households option 1 in Q5,34c/# of households who answered the question*100
Percentage of households who feel that they are experiencing pollution by categories	National and provincial	5,35 Option 1	Main source	# of households who answered 'Yes' for selected options in Q5,35/# of households who answered the question*100
Percentage of households who have used pesticides and herbicides in and around their dwellings during the past twelve months	National and provincial	5,36	Main source	# of households to which the question applies who answered 'Yes' in Q5,36/# of households who answered the question*100

Table 3.4: Health, MRC, and Health Systems Trust related indicators

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
% of orphans aged 7–18 years attending educational institutions	National and provincial	1,3a, 1,4a, 1,12, D	Main source	# of children aged 7–18 years who lost one or both of their biological parents attending school/ # of children aged 7–18 who lost one or both of their biological parents*100
% of people 20 years and older with no schooling	National and provincial	D, 1,6	Main source	# of persons 20 years and older with no schooling/# of persons 20 years and older*100
% of persons with medical aid coverage	National and provincial	2,1	Main source	# of persons who responded 'Yes' in Q2,1/# of persons who responded to the question*100
% of households for which the usual place of consultation is a public facility	National and provincial	7,1	Descriptive/ interpretive One of the sources	# of persons who responded 'Yes' to options 1–3 in Q7,1/# of persons who responded to the question*100

Table 3.5: Human settlement

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
Percentage of households who live in an RDP or state subsidised house	National and provincial	5,9a	Main source	# of households who replied 'Yes' in Q5,9a /# of households who answered the question*100
Percentage of households receiving a housing subsidy from the state	National and provincial	5,10	Validation source	# of households whose response is 'Yes' in Q5,10/# of households who answered the question*100
Percentage of households who state that the condition of the walls of their state provided/ subsidised housing is weak/very weak	National and provincial	5,2, 5,9a	Validation source	# of households with a 'Yes' answer in Q5,9a and response 1–2 in Q5,3/# of households 'Yes' in Q5,9a
Percentage of households who state that the condition of the roof of their state provided/ subsidised housing is weak/very weak	National and provincial	5,2, 5,9a	Validation source	# of households 'Yes' in Q5,10a and response 1–2 in Q5,3/# of households 'Yes' in Q5,9a
Percentage of households who pay rent for a state provided/RDP house,	National and provincial	5,5, 5,9a	Main source	# of households 'Yes' in Q5,10 and option 1 in Q5,6/# of households 'Yes' in Q5,10
Percentage of households who fully own their dwellings	National and provincial	5,5	Main source	# of households options 5 in Q5,5/# of households who answered the question*100

Table 3.6: Social development

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
% of persons 60 years and older that are disabled	National and provincial	D, 2,8	Only source	# of persons aged 60 years and older who are disabled UN definition/# of persons who answered the question *100
% of persons 60 years and older that are severely disabled	National and provincial	D, 2,8	Only source	# of persons aged 60 years and older who are severely disabled/# of persons who answered the question *100
% of people 60 years and older who received old-age grant	National and provincial	D, 3,1b	Only source	# of persons aged 60 years and older who received an old-age grant/# of persons who answered the question *100
% of people 60 years and older who received social grants	National and provincial	D, 3,1a	Only source	# of persons aged 60 years and older who received a social grant/# of persons who answered the question *100
% of households with persons 60 years and older with: Food access adequate Food access inadequate Food access severely inadequate	National and provincial	D, 7,9, 7,10, 7,11 and 7,12	Descriptive/ interpretive Validation	# of persons aged 60 years and older who answered 'Yes' to 7,9,7,10,7,11 and 7,12/# of persons who answered the question *100

Table 3.6: Social development (concluded)

Annual reporting level	Questions in the GHS	GHS relative to other sources	GHS relative to other sources	Definitions and/or formulas
# of households classified as: Food access adequate Food access inadequate Food access severely inadequate	National and provincial	7,9–7,12	Inputs towards indicator calculation	# of households who answered 'Yes' to 7,9,7,10,7,11 and 7,12
# of households classified as poor using household monthly expenditure of below R2 500 as the cut-off	National and provincial	8,12a	-	# of households whose total monthly expenditure is below R2 500
# of households classified as poor using household monthly expenditure of below R2 500 as the cut-off and who have children aged 7–18	National and provincial	8,12a	-	# of households with children aged 7-18 and total monthly expenditure is below R2 500
% of poor households with children aged 7–18 who do not spend money on school fees	National and provincial	D, 1,16, 8,12a	Main source	# of households with children aged 7–18 and monthly expenditure below R2 500 who did not spend any money on school fees for at least one of their children/# of households that are poor and have children aged 7–18 years

Table 3.7: Transport

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
# of passenger trips made per month with each public transport mode: Minibus/taxi	National and provincial	6,8	Validation	Only calculated for household members who made trips using public transport
Train				
% of the household's income spent on transport per month: 1-10% 11-20% 21-30% 30% or more	National and provincial	6,8–6,10, 8,9a	Main source	Only calculated for households with valid income and expenditure on transport data
% of learners travelling for longer than 30 minutes to an educational institution	National and provincial	1,15b	Main source	Only calculated for individuals attending educational institutions who provided a response to the question on time taken, Missing values were excluded from the denominator
% of workers travelling for longer than 30 minutes to their place of work	National and provincial	4,4b	Main source	Only calculated for individuals working and who provided a response to the question on time taken, Missing values were excluded from the denominator

Table 3.8: Water and sanitation

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
# of households with water supply infrastructure of RDP standard or higher	National and provincial	5,12, 5,13a	Validation and data confrontation	On or above RDP is piped water in dwelling or yard or borehole in the yard (options 1,2&3) or tap less than 200 meters from yard (options 5,6&8) and option 1 Q3,13a; all others are below,
# of households with water supply infrastructure less than RDP standard	National and provincial	5,12, 5,13a	Validation and data confrontation	On or above RDP is piped water in dwelling or yard or borehole in the yard (options 1,2&3) or tap less than 200 meters from yard (options 5,6&8) and option 1 Q3,14; all others are below,
# of households with no water supply infrastructure	National and provincial	5,12	Validation and data confrontation	'No water supply' is options 3, 4, 7–13,
Consumer perception index of water quality: # Safe to drink # Clear # Good in taste # Free from bad smells	National and provincial	5,14	Validation and data confrontation	# of households option 'Yes' in Q5,14/# of households who answered the question*100
# of consumers who experienced water supply interruptions of 48 hours or more at a time	National and provincial	5,20	Validation and data confrontation	# of households option 'Yes' in Q5,20/# of households who answered the question*100
# of consumers who have experienced a cumulative interruption of more than 15 days for the financial year	National and provincial	5,21	Supply data towards its calculation	# of households option 'Yes' in Q5,21/# of households who answered the question*100

Table 3.8: Water and sanitation (concluded)

Indicator	Annual reporting level	Questions in the GHS	GHS relative to other sources	Definitions and/or formulas
# of households with access to a functioning basic sanitation facility (strategic framework)	National and provincial	5,22–5,25a	Main source	'Basic facility' is defined as options 1, 2, and 4 Q5,22
% households with access to a functioning basic sanitation facility (strategic framework)	National and provincial	5,22–5,25a	Main source	# of households with basic facilities/# of households*100
# of households with substandard toilet facility	National and provincial	5,22–5,25a	Main source	'Substandard' is defined as options 3, 5, 6, 7, 8 in Q5,22
% of households with substandard toilet facility	National and provincial	5,22–5,25a	Main source	# of households with substandard facilities/# of households*100
# of households using bucket toilets	National and provincial	5,22, 5,24, 5,25a	Main source	# of households who chose option 7 (none)
# of households with no sanitation facility	National and provincial	5,24	Main source	# of households who chose option 6 (bucket toilet)
# of poor households receiving free basic sewerage and sanitation	National and provincial	5,22–5,23	Supply data towards its calculation	Poor households are households who spend less than R2 500 per month
% of poor households receiving free basic sewerage and sanitation	National and provincial	5,22 and 5,23	Supply data towards its calculation	# of poor households who are connected to the sewerage system and answered 'Yes' to 5,23//# of households who answered the question*100