

## Definitions and sources (abbreviations given in footnote)

Indicator Group	Indicator	Description	Numerator	Denominator	Source
Deprivation	South African Index of Multiple Deprivation Rank (1 = most deprived)	Ranking for composite index of deprivation. Indicators cover the following domains: income and material deprivation, employment deprivation, education deprivation, and living environment deprivation			Southern African Social Policy Research Institute (SASPRI), based on data from Stats SA Census 2011
	Antenatal 1st visits before 20 weeks rate	Women who have a booking visit (1st visit) before they are 20 weeks into their pregnancy as a proportion of all antenatal 1st visits	Antenatal 1st visits before 20 weeks	Antenatal 1st visits	WebDHIS
Maternal and neonatal	Antenatal 1st visit coverage	The proportion of potential antenatal clients coming for at least one (booking) antenatal visit. The census number of children under one year factorised by 1.15 is used as a proxy denominator – the extra 0.15 (15%) is a rough estimate to cater for late miscarriages (~10 to 26 w), stillbirths (after 26 weeks' gestation) and infant mortality. Pregnant women are regarded as potential antenatal clients from around 10 weeks' gestation, i.e. spontaneous abortions before that as well as ToP cases are excluded	Antenatal 1st visit – total	Estimated pregnant women ~10 weeks' gestation	WebDHIS
	Delivery in 10–19 years in facility rate	Deliveries where the mother is 10–19 years old and such delivery is conducted by a trained healthcare worker in a health facility	Deliveries among women aged 10–19 years	Number of deliveries – total	WebDHIS
	Maternal mortality in facility ratio	Women who died in hospital as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births in facility	Maternal deaths in facility	Live births in facility	WebDHIS
	Neonatal death in facility rate	Infants 0–28 days who died during their stay in the facility as a proportion of live births in facility	Neonatal 0–28 days death in facility	Live birth in facility	WebDHIS
	Child under 5 years pneumonia case fatality rate	Proportion of children under 5 years admitted with pneumonia who died	Child under 5 years pneumonia death	Child under 5 years pneumonia admitted	WebDHIS
	Death in facility under 5 years rate	Proportion of children under 5 years admitted/separated who died during their stay in the facility	Death in facility under 5 years	Inpatient separations under 5 years	WebDHIS
	Vaccine expenditure per population under 1 year	Expenditure on vaccines per population under 1 year	Expenditure on vaccines	Population under 1 year	WebDHIS, BAS
	Immunisation coverage under 1 year	Percentage of all children in the target area under 1 year who complete their primary course of immunisation. A primary course comprises BCG, OPV 1, DTaP-IVP-Hib-HBV 1, 2 and 3, PCV 1, 2 and 3, RV 1 and 2 and measles 1	Children fully immunised under 1 year	Target population under 1 year	WebDHIS

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Women's health	Couple year protection rate	Women protected against pregnancy by using modern contraceptive methods, including sterilisations, as proportion of female population 15–49 year. Contraceptive years are the total of (Oral pill cycles / 15) + (Medroxyprogesterone injection / 4) + (Norethisterone enanthate injection / 6) + (IUCD x 4.5) + (Sub-dermal implant x 2.5) + Male condoms distributed / 120) + (Female condoms distributed / 120) + (Male sterilisation x 10) + (Female sterilisation x 10)	Contraceptive years dispensed (including sterilisations)	Female target population 15–44 years	WebDHIS
	Contraceptive prevalence rate	Percentage of sexually active women of reproductive age who are currently using a modern method of contraception	Number of sexually active women aged 15–49 reporting current contraceptive use	Total population of sexually active women aged 15–49	SADHS
Tuberculosis	TB symptom child under 5 years screened in facility rate	Children under 5 years screened for TB symptoms as a proportion of PHC headcount under 5 years	Child under 5 years screened for TB symptoms	PHC headcount under 5 years	WebDHIS
	TB symptom 5 years and older screened in facility rate	Clients 5 years and older screened for TB symptoms as a proportion of PHC headcount 5 years and older	Client 5 years and older screened for TB symptoms	PHC headcount 5 years and older	WebDHIS
	TB symptomatic child under 5 years rate	Symptomatic children as a proportion of those screened for TB symptoms in the under 5 years age group	Symptomatic children under 5 years	Child under 5 years screened for TB symptoms	WebDHIS
	TB symptomatic 5 years and older rate	Proportion of clients 5 years and older with a positive TB symptoms screen of the clients screened for TB	Clients 5 years and older with a positive TB symptoms screen	Client 5 years and older screened for TB symptoms	WebDHIS
	TB drug-susceptible successful treatment rate	Proportion TB clients (ALL types of TB) cured plus those who completed treatment	TB client cured OR completed treatment	TB client initiated on treatment	NDoH TB Directorate
	TB drug-susceptible client loss to follow-up rate	TB clients who started drug-susceptible tuberculosis treatment and who subsequently became loss to follow-up as a proportion of all those in the treatment outcome cohort	All drug-susceptible TB loss to follow-up	All drug-susceptible TB patients in treatment outcome cohort	NDoH TB Directorate
	TB drug-susceptible death rate	TB clients who started drug-susceptible tuberculosis treatment and who subsequently died as a proportion of all those in the treatment outcome cohort	All drug-susceptible TB client died	All drug-susceptible TB patients in treatment outcome cohort	NDoH TB Directorate
	TB multidrug-resistant treatment success rate	TB-MDR client successfully completing treatment as a proportion of TB- MDR confirmed clients started on treatment	TB-MDR client successfully complete treatment	TB-MDR confirmed client start on treatment	NDoH TB Directorate
	TB-XDR treatment success rate	TB-XDR clients successfully completing treatment as a proportion of TB-XDR confirmed clients started on treatment	TB-XDR client successfully complete treatment	TB-XDR confirmed client start on treatment	NDoH TB Directorate
	Clients remaining on ART rate	Percentage of estimated people living with HIV who remain on ART	Total clients remaining on ART at end of the month	Estimated number of people living with HIV	NDoH TB Directorate
HIV	Adult with viral load suppressed rate 12 months	Proportion of adult ART clients with viral load suppressed at 12 months	ART client viral load under 400 cps/mL at 12 months	ART viral load done	WebDHIS

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Non-communicable diseases	Cervical cancer screening coverage	Cervical smears in women 30 years and older as a proportion of the female population 30 years and older. 80% of these women should be screened for cervical cancer every 10 years and 20% must be screened every 3 years	Cervical cancer screening in non-HIV woman 30 years and older + cervical cancer screening in women 20 years and older	80% women aged 30-59yrs / 10 + 20% women aged 20-59yrs / 3	WebDHS
	Prevalence of non-raised blood pressure	Percentage of population 15 years and older with non-raised blood pressure, regardless of treatment status, age-standardised (Census 2011 population)	Number of people with normal blood pressure (SBP <140 and DBP <90 mmHg)	Adult population (15 years and older)	National Income Dynamics Study 'modelled'
	Prevalence of obesity/ overweight	Percentage of adults (15+ years) who are either overweight or obese according to standard BMI cut-offs	-	-	National Income Dynamics Study 'modelled'
	Prevalence of diabetes	Percentage of people with diabetes. Defined in SANHANES as those with HbA1c >6.5%	-	-	National Income Dynamics Study 'modelled'
	Treatment coverage for diabetes	Percentage of people with diabetes receiving treatment	Number of people reporting treatment for diabetes	Estimated number of people with diabetes	National Income Dynamics Study 'modelled'
PHC management	Percentage ideal clinics	Percentage of fixed PHC facilities assessed on the Ideal Clinic dashboard that achieved Ideal Clinic status (silver, gold, platinum or diamond status)	Number of fixed PHC facilities achieving silver, gold, platinum or diamond status on the Ideal Clinic dashboard	Fixed clinics plus fixed CHCs/ CDCs	WebDHS, Ideal Clinic review tools
	Core essential medicines available at fixed PHC and CHC/CDC facilities	Percentage availability of medicines as they appear on facility formularies at health establishments	Number of medicine lines with stock available	Number of medicine lines on the formulary at all fixed PHC and community health centres/ community day centres	National Surveillance Centre
	PHC utilisation rate	The rate at which PHC services are utilised by clients of all ages in the catchment population, represented as the average number of PHC visits per client per year in the target population. The denominator is usually Census-derived population	Total PHC headcount	Total population	WebDHS
	Average length of stay	Average number of patient days that an admitted patient spends in hospital before separation	Inpatient days + 1/2 day patients	Separations = Discharges (including day patients) + Deaths + Transfers out	WebDHS
	Inpatient bed utilisation rate	Inpatient bed days used as proportion of maximum inpatient bed days (inpatient beds x days in period) available	Total patient days = (Inpatient days + 1/2 day patients) x 100	Total usable bed days = (Inpatient beds – total) x 30.42	WebDHS
Inpatient management	Patient day equivalent	Weighted data element as proxy for estimating resources for all types of patients in terms of inpatient days	The sum of inpatient days total x 1, day patient total x 0.5, and OPD/emergency total headcount x 0.3333333	-	WebDHS
	Inpatient crude death rate	Proportion of admitted patients/separations who died during hospital stay	Inpatient deaths – total	Separations = Discharges (including day patients) + Deaths + Transfers out	WebDHS
	Hospital beds per 10 000 target population	Number of inpatient beds per 10 000 target population. For public sector beds, the uninsured population is used as the target	Inpatient beds	Uninsured population (total population less medical scheme coverage x population)	WebDHS

Group	Indicator	Description	Numerator	Denominator	Source
Finance	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	Total amount spent on DHS per person without medical scheme coverage	Provincial expenditure on DHS (excluding 2.8 Coroner) plus net LG expenditure on PHC	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, Treasury data on LG expenditure, WebDHS population and GHS modelled for medical scheme coverage
	Provincial PHC expenditure per capita (uninsured)	Total amount spent on non-hospital PHC health services per person without medical scheme coverage	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, NW financial data, Treasury data on LG expenditure, WebDHS population and GHS modelled for medical scheme coverage
	Provincial expenditure per PHC headcount	Total amount spent on non-hospital PHC health services per headcount	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Total PHC headcount	BAS, WebDHS
	Expenditure per Patient Day Equivalent	Average cost per patient per day seen in a hospital (expressed as Rand per PDE)	Total expenditure on health per hospital	PDE total	BAS, WebDHS
Human resources	Medical practitioners per 100 000 uninsured population	Ratio of the number of medical practitioners (Doctors) to the population (per 100 000). Note that the measure of the number of personnel may differ for the public and private sectors, and that the population may be adjusted to be the population assumed to be dependent on that sector	Medical practitioners registered to practice, total number	Uninsured population (total population less medical scheme coverage x population)	Calculated from PERSAL, WebDHS population and GHS modelled estimates of medical scheme coverage
	Professional nurses per 100 000 uninsured population	Ratio of the number of Professional Nurses to the population (per 100 000). Note that the measure of the number of personnel may differ for the public and private sectors, and that the population may be adjusted to be the population assumed to be dependent on that sector	Professional Nurses registered to practice, total number	Uninsured population (total population less medical scheme coverage x population)	Calculated from PERSAL, WebDHS population and GHS modelled estimates of medical scheme coverage
	Pharmacists per 100 000 uninsured population	Ratio of the number of Pharmacists to the population (per 100 000). Note that the measure of the number of personnel may differ for the public and private sectors, and that the population may be adjusted to be the population assumed to be dependent on that sector	Pharmacists registered to practice, total number	Uninsured population (total population less medical scheme coverage x population)	Calculated from PERSAL, WebDHS population and GHS modelled estimates of medical scheme coverage
Extra	Health worker density (index)	An indicator based on SDG indicator 3.c.1 with a modified scaling approach as described by Lozano et al., 2018. Medical practitioners, Professional Nurses and Pharmacists per uninsured population were rescaled from 0–100 against thresholds of 30, 100 and 5 per 10 000. The index was calculated as the geometric mean of the three scaled scores	-	-	Calculated from PERSAL, WebDHS population, GHS modelled estimates of medical scheme coverage and is the geometric mean of the three cadre densities
	Medical aid coverage	Percentage of population who have medical scheme insurance	Number of medical scheme beneficiaries	Total population	GHS modelled estimates of medical scheme coverage

Group	Indicator	Description	Numerator	Denominator	Source
Burden of Disease	Percentage of YLLs due to communicable, maternal, perinatal, nutritional causes	Percentage of YLLs due to communicable, maternal, perinatal, nutritional causes	Number of YLLs due to communicable, maternal, perinatal, nutritional causes	Total number of YLLs	Stats SA
	Percentage of deaths garbage codes	Percentage of deaths garbage codes	Number of garbage code deaths	Total number of deaths	Stats SA
	Percentage of YLLs due to HIV and TB	Percentage of YLLs due to HIV and TB	Number of YLLs due to HIV and TB	Total number of YLLs	Stats SA
	Percentage of deaths ill-defined	Percentage of deaths ill-defined	Number of ill-defined deaths	Total number of deaths	Stats SA
	Percentage of YLLs due to injuries	Percentage of YLLs due to injuries	Number of YLLs due to injuries	Total number of YLLs	Stats SA
	Percentage of YLLs due to non-communicable diseases	Percentage of YLLs due to NCDs	Number of YLLs due to NCDs	Total number of YLLs	Stats SA
	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Number of deaths due to communicable diseases / maternal conditions	Total number of deaths	Stats SA
	Percentage of deaths due to HIV or TB	Percentage of deaths due to HIV or TB	Number of deaths due to HIV or TB	Total number of deaths	Stats SA
	Percentage of deaths due to injuries	Percentage of deaths due to injuries	Number of deaths due to injuries	Total number of deaths	Stats SA
	Percentage of deaths due to non-communicable diseases	Percentage of deaths due to NCDs	Number of deaths due to NCDs	Total number of deaths	Stats SA

ART = antiretroviral treatment; BAS = National Treasury Basic Accounting System; BCG = bacille Calmette-Guerin; BP = blood pressure; CDC = Community Day Centre; CHC = Community Health Centre; DHIS = District Health Information Software; DHS = District Health Services; DTaP-IPV-Hib-HBV = Diphtheria, Tetanus, Inactivated Polio Vaccine, Haemophilus Influenza B, Hepatitis Vaccine; GHS = General Household Survey; HIV = Human Immunodeficiency Virus; LG = Local Government; MDR = multidrug-resistant; NCDs = non-communicable diseases; NDoH = National Department of Health; OPD = outpatient department; OPV = oral polio vaccine; PCR = polymerase chain reaction; PCV = pneumococcal conjugate vaccine; PDE = patient day equivalent; PHC = Primary Health Care; PR = programme; RV = Rotavirus vaccine; SADHS = South African Demographic and Health Survey; SANHANES = South African National Health and Nutrition Examination Survey; Stats SA = Statistics South Africa; TB = tuberculosis; ToP = termination of pregnancy; XDR = extremely drug-resistant; YLLs = years of life lost