# Chronic Disease Management

Presentation By: Lindele Mbanjwa

Prepared by: L Mbanjwa
Presenter short Bio

## Declarations and Speaker Profile

**Ms Lindele Mbanjwa is the**
Founder and CEO of LINOVA HEALTH CARE (Patient Support Programme) -

Private Nurse Practitioner by Qualification
-Critical care and Trauma Nursing
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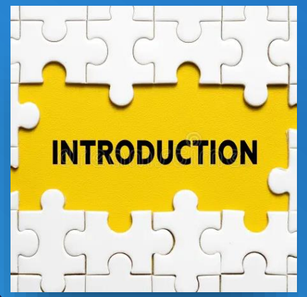
No Donations or endorsements for the presentation

**Improve Quality of Life**

**Healthy Lifestyle Promotion**




## Introduction and Background - Chronic Diseases In South Africa



1. Chronic Disease Management
2. Chronic Disease Model
3. The Role of a Multi-Disciplinary Team


The Future of South Africa

Background and

# Introduction

## A rising concern on non Communicable Disease's in South Africa

Did you know chronic diseases – otherwise known as noncommunicable diseases, are the leading cause of death and disability worldwide, accounting for nearly 60% of all deaths and 43% of the global disease burden.

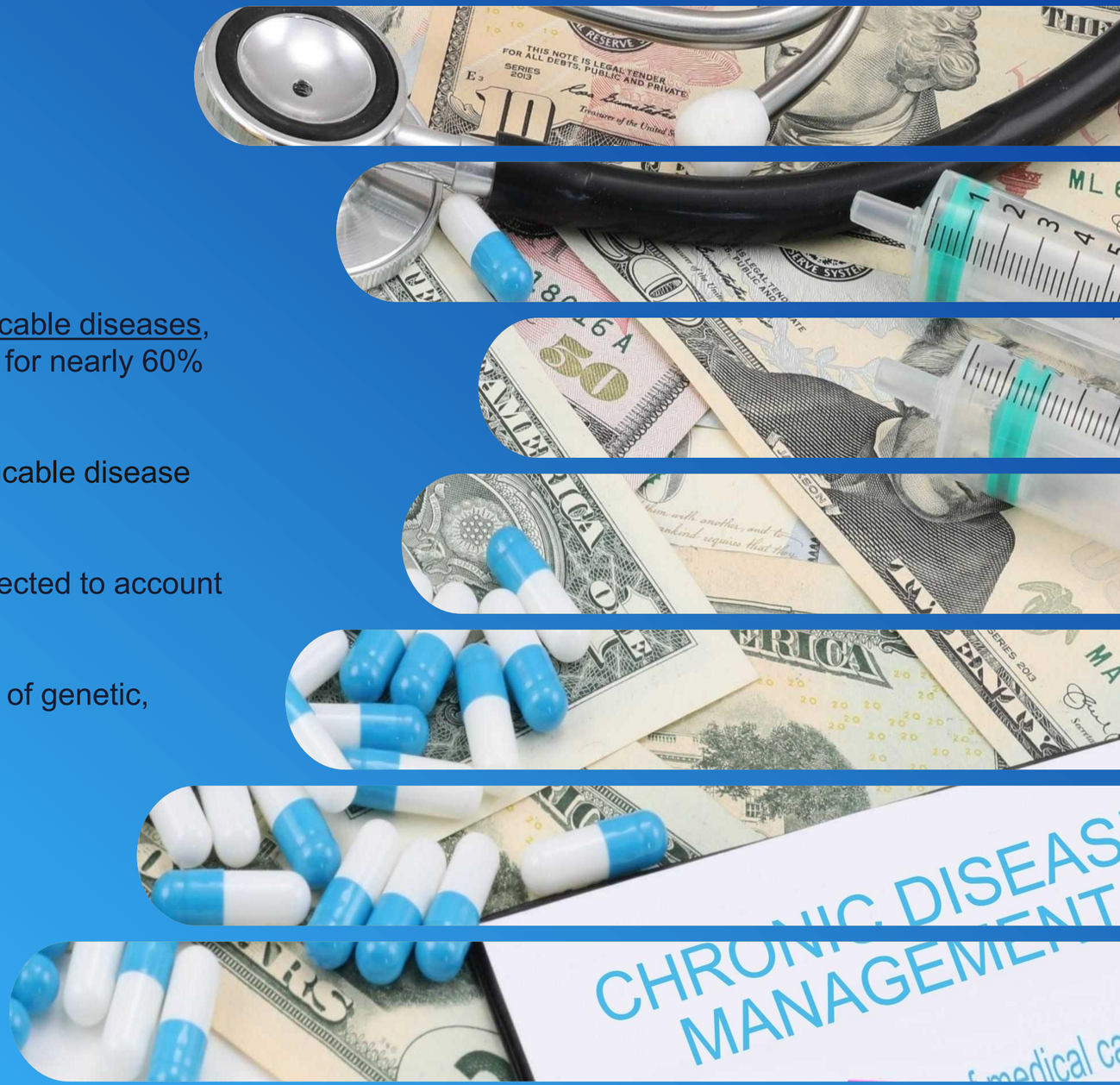
South Africa has a high burden of communicable and non-communicable disease (NCDs), with the latter making up 51% of deaths in 2019.

According to the World Health Organization, chronic disease is expected to account for 73% of all deaths by 2020.

“Chronic diseases are long-term illnesses caused by a combination of genetic, physiological, environmental, and behavioural factors.

Are we putting into practice what we know ?

1. Treatment
2. Prevention
3. Sustainability




## A looming health concern

Reference List:

South African Burden

# Top 11 Chronic CONDITIONS

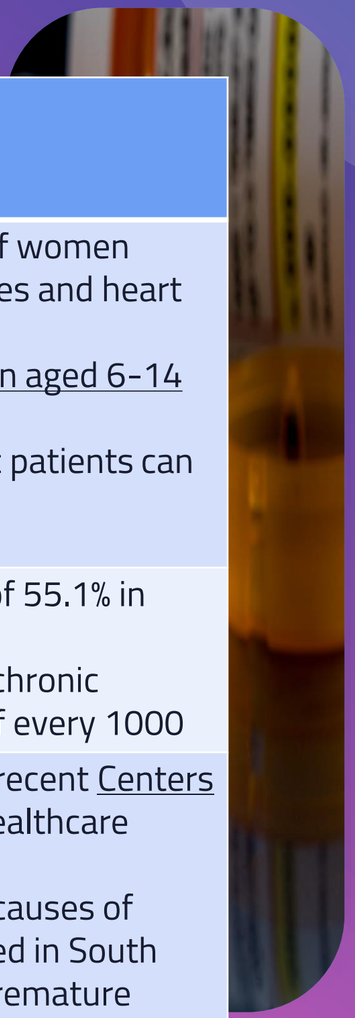
| Chronic Condition | Prevalence in South Africa |
|---|---|
| **STROKE AND HEART DISEASE** | The sheer number of heart disease or stroke fatalities is a growing concern in SA. According to the Heart & Stroke Foundation, 215 people die from heart disease or strokes daily. Every hour, five people have heart attacks, and 10 have strokes. Because there is a lack of awareness about cardiovascular disease, many people go undiagnosed and untreated until it is too late. |
| **DIABETES** | One in every three adults (13 million) in South Africa has impaired fasting glucose (IFG), putting them at high risk of developing type 2 diabetes. Diabetes is the country's second deadliest disease, according to Statistics South Africa's 2021 report on mortality and causes of death.<br>It has claimed more lives than HIV, hypertension, and other forms of heart disease combined. It is a leading cause of blindness, kidney failure, heart attacks, stroke, and amputation of lower limbs. |
| **EPILEPSY** | More than 500 000 people in South Africa have epilepsy. Seizures caused by epilepsy can sometimes result in death. People with epilepsy may also have poor mental health or other impairments that are difficult to detect. |
| **HIV & AIDS** | In South Africa, the overall HIV prevalence rate is estimated to be around 13.7%. In 2021, the total number of people living with HIV was expected to be approximately 8.2 million. HIV infection affects an estimated 19.5% of adults aged 15 to 49 years. |
| **ASTHMA** | Asthma affects more than 20% of children and 10-15% of adults in South Africa. It is not uncommon for those suffering from the illness to be hospitalised during an attack, which can significantly reduce their quality of life. |
| **ALZHEIMER'S DISEASE** | According to the most recent World Alzheimer's Report, South Africa has 4.4 million people over the age of 60 living with the disease. Around 187,000 of these people have dementia. |
| **HYPERTENSION/HIGH BLOOD PRESSURE** | High blood pressure, also known as hypertension, affects more than one in every three adults in South Africa. Because there are rarely any symptoms or visible signs that blood pressure is high, it is referred to as a "silent killer". |
| **TUBERCULOSIS** | In South Africa, tuberculosis is a significant public health concern. Every year, approximately 450,000 people contract the disease, with 270,000 also infected with HIV.<br>TB is the leading cause of death in South Africa. It kills approximately 89,000 people per year, or 10 people every hour. Effective treatments are available, and the country has made significant progress in combating the disease, but much more is required to bring it under control. |

South African Burden

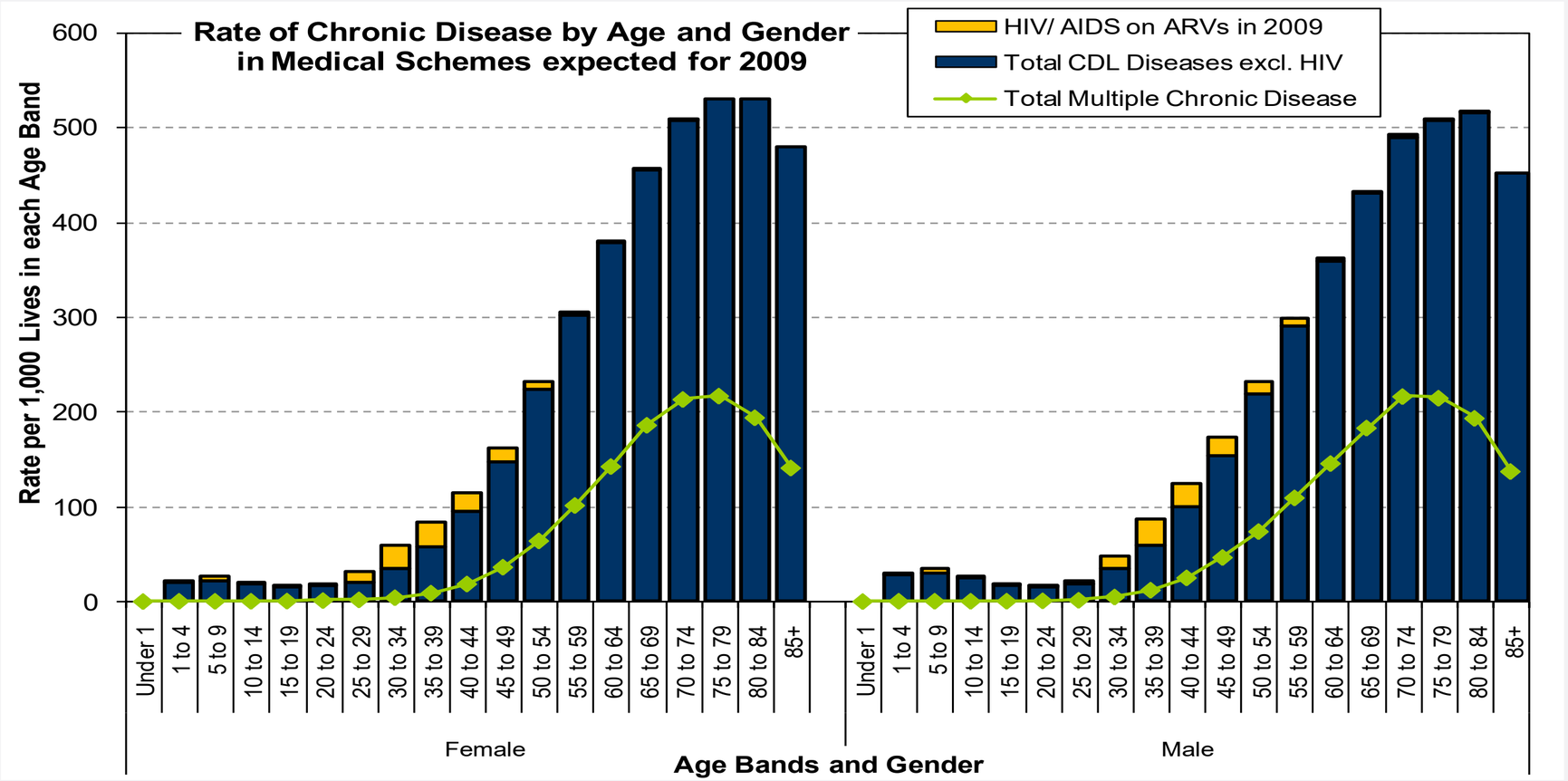
# Top 11 Chronic CONDITIONS

CONTINUES...

| Chronic Condition | Prevalence in South Africa |
|---|---|
| **OBESITY/OVERWEIGHT** | Obesity statistics in South Africa are concerning, with approximately 31% of men and 68% of women obese. Obesity and being overweight can lead to various lifestyle diseases, including diabetes and heart disease.<br>Obesity is a major issue in adults and children, with more than 13% of South African children aged 6-14 years classified as overweight or obese.<br>Education, promoting access to healthier foods, and providing preventive care to paediatric patients can help maintain a healthy weight |
| **ARTHRITIS** | Osteoarthritis is the most common type of arthritis in South Africa, with a prevalence rate of 55.1% in urban areas and between 29.5% and 82.7% in adults over 65 years of age in rural areas.<br>As many patients are unsure how to manage their symptoms, arthritis coexists with other chronic conditions. This disease is surprisingly common among children, affecting one to four out of every 1000 |
| **CANCER** | Cancer care is expected to cost $240 billion (R4160 billion) by 2030, according to the most recent Centers for Disease Control and Prevention (CDC) and National Cancer Institute estimates, due to healthcare inflation over the previous decades.<br>Despite declining cancer rates, the CDC predicts that cancer will remain one of the leading causes of death in South Africa. It is estimated that nearly 110,000 new cancer cases will be diagnosed in South Africa by 2020, with over 56,000 cancer-related deaths accounting for one-quarter of all premature noncommunicable disease-related mortality.<br>The most effective cancer prevention measures continue to be early screenings, raising awareness about preventative techniques, and developing strategic partnerships. |



# Rate of Chronic Disease in medical Schemes 2009

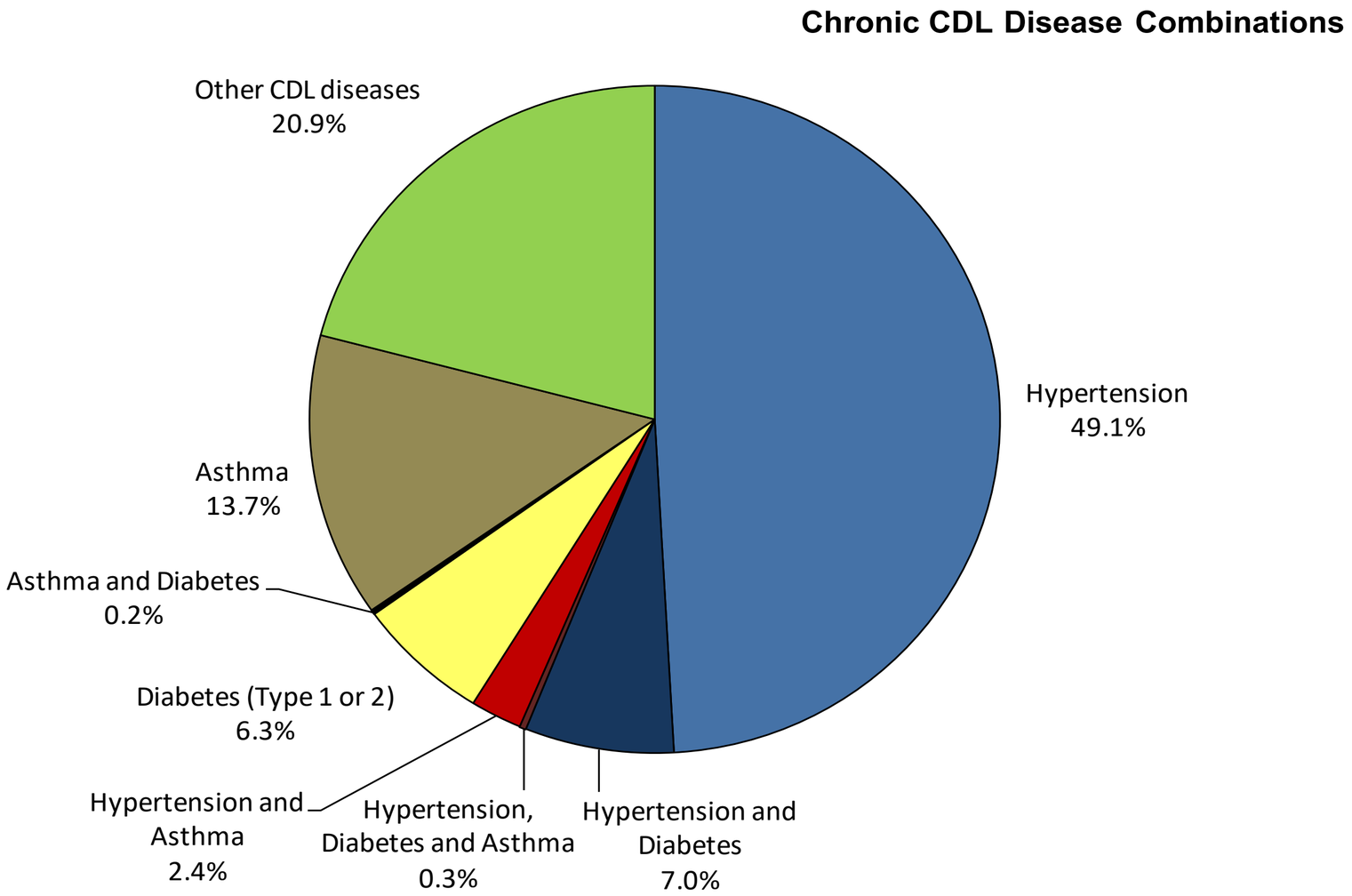



**The 25 Chronic Disease List (CDL) diseases must be covered by medical schemes as part of the Prescribed Minimum Benefit (PMB) package. Strong pattern by age for chronic disease and multiple chronic disease.**

**Source: IMSA NHI Policy Brief 3: Chronic Disease and Future NHI**

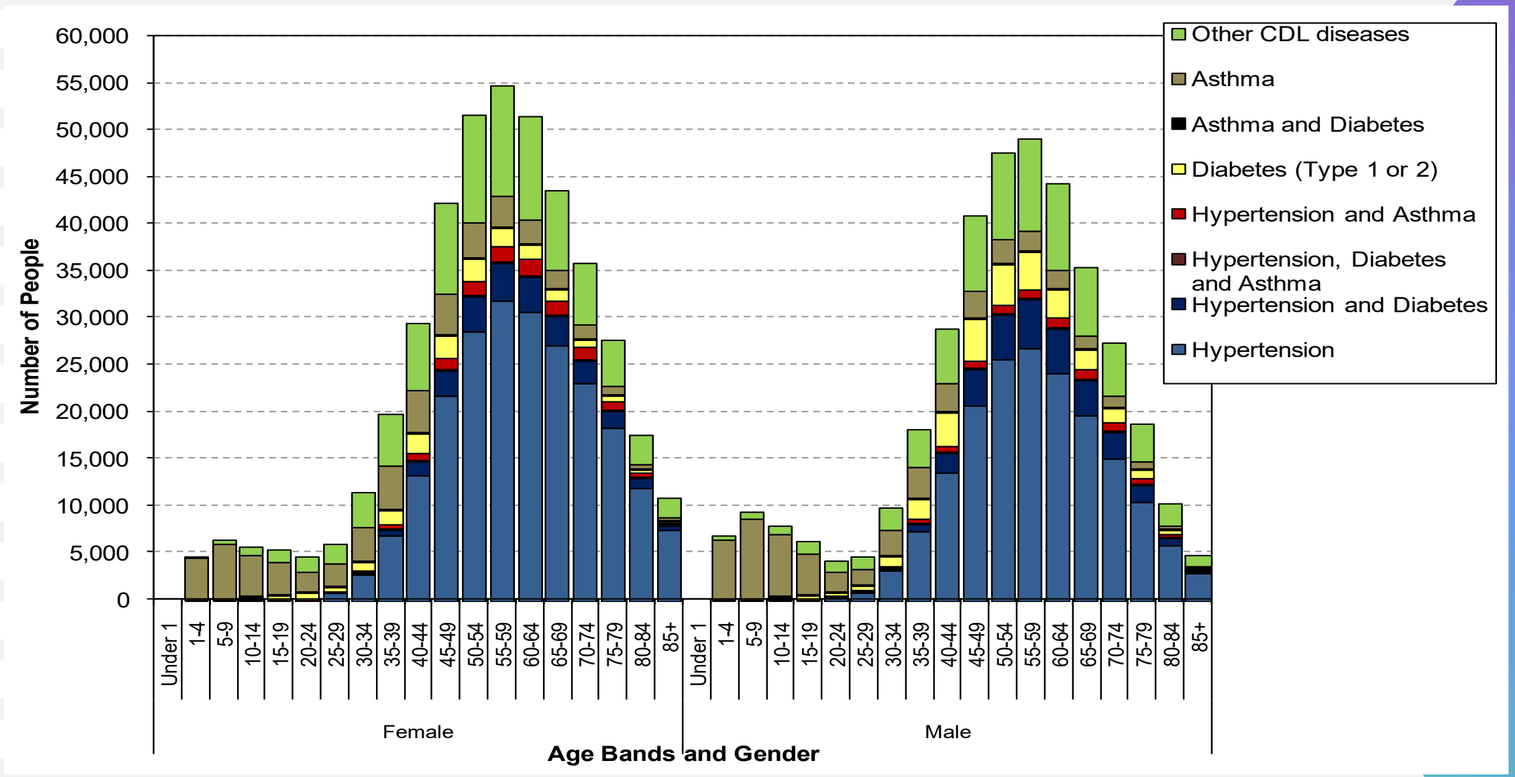
Implications

# Common Combinations of CDL




**Data from REF Study 2005 in medical schemes. Analysis excludes HIV as epidemic is progressing each year.**

# Numbers with Combinations of Chronic Conditions

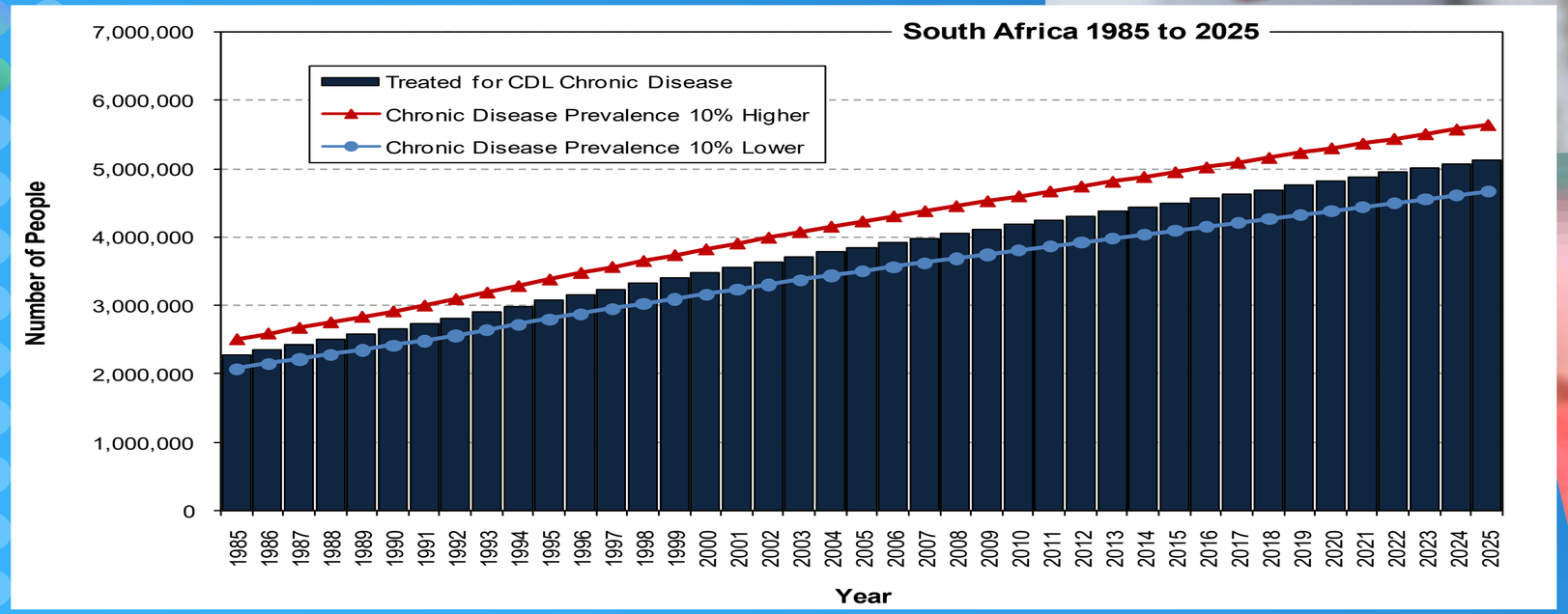




**This analysis restricted to medical scheme population and excludes HIV (dealt with in Policy Brief 4).**

Treatment Guidelines

# Needing Treatment for CDL Chronic Diseases 1985 to 2025




**Shows sensitivity to higher and lower rates of chronic disease by age and gender. The aging and growth of the population mean a substantial increase in the numbers needing treatment from 2.99 million in 1994 to 5.13 million by 2025 (172% increase)**

**Source: IMSA NHI Policy Brief 3: Chronic Disease and Future NHI**

Need for Treatment

# 1994-2025

| People Needing Treatment for Disease | | Calendar Year | | | | | | |
|---|---|---|---|---|---|---|---|---|
| REF code | Disease | 1994 | 2000 | 2005 | 2009 | 2015 | 2020 | 2025 |
| ADS | Addison's Disease | 1,612 | 1,870 | 2,049 | 2,173 | 2,378 | 2,543 | 2,712 |
| AST | Asthma | 624,993 | 694,005 | 734,875 | 757,859 | 784,608 | 802,272 | 816,733 |
| BCE | Bronchiectasis | 1,946 | 2,185 | 2,362 | 2,491 | 2,685 | 2,816 | 2,941 |
| BMD | Bipolar Mood Disorder | 17,648 | 20,753 | 22,705 | 23,819 | 25,215 | 26,264 | 27,097 |
| CMY | Cardiomyopathy | 133,323 | 161,799 | 182,606 | 198,566 | 224,171 | 247,582 | 273,046 |
| COP | Chronic Obs. Pulmonary Disease | 72,565 | 83,704 | 92,776 | 100,323 | 112,414 | 123,598 | 135,196 |
| CRF | Chronic Renal Disease | 6,971 | 8,139 | 9,013 | 9,621 | 10,518 | 11,232 | 11,894 |
| CSD | Crohn's Disease | 5,276 | 6,188 | 6,789 | 7,198 | 7,754 | 8,171 | 8,516 |
| DBI | Diabetes Insipidus | 492 | 561 | 603 | 628 | 654 | 669 | 678 |
| DM1 | Diabetes Mellitus 1 | 78,689 | 91,129 | 99,345 | 104,456 | 111,268 | 116,612 | 121,489 |
| DM2 | Diabetes Mellitus 2 | 310,861 | 365,116 | 408,500 | 439,719 | 484,514 | 522,174 | 559,928 |
| DYS | Dysrhythmias | 35,437 | 41,561 | 46,494 | 50,610 | 57,173 | 63,187 | 69,689 |
| EPL | Epilepsy | 121,925 | 139,608 | 150,792 | 157,389 | 165,914 | 172,379 | 178,213 |
| GLC | Glaucoma | 49,142 | 58,529 | 65,774 | 71,683 | 81,170 | 89,932 | 99,286 |
| HAE | Haemophilia | 623 | 692 | 736 | 752 | 764 | 768 | 774 |
| HYL | Hyperlipidaemia | 615,850 | 714,785 | 798,635 | 864,608 | 965,408 | 1,052,327 | 1,137,312 |
| HYP | Hypertension | 1,388,731 | 1,638,462 | 1,842,501 | 1,996,843 | 2,223,052 | 2,410,396 | 2,593,482 |
| IBD | Ulcerative Colitis | 8,577 | 10,058 | 11,080 | 11,794 | 12,751 | 13,483 | 14,167 |
| IHD | Coronary Artery Disease | 160,955 | 188,525 | 211,021 | 229,341 | 258,067 | 284,262 | 311,976 |
| MSS | Multiple Sclerosis | 3,778 | 4,486 | 4,926 | 5,173 | 5,467 | 5,664 | 5,821 |
| PAR | Parkinson's Disease | 15,534 | 18,693 | 21,057 | 22,963 | 26,196 | 29,231 | 32,787 |
| RHA | Rheumatoid Arthritis | 62,963 | 74,375 | 83,554 | 90,228 | 99,592 | 107,090 | 114,015 |
| SCZ | Schizophrenia | 8,863 | 10,495 | 11,600 | 12,273 | 13,174 | 13,895 | 14,534 |
| SLE | Systemic Lupus Erythematosus | 5,145 | 6,103 | 6,753 | 7,140 | 7,582 | 7,880 | 8,146 |
| TDH | Hypothyroidism | 283,965 | 336,336 | 379,349 | 413,268 | 462,897 | 502,178 | 537,987 |
| CC2 | Two simultaneous conditions | 663,945 | 777,774 | 872,288 | 946,116 | 1,057,414 | 1,152,591 | 1,247,208 |
| CC3 | Three simultaneous conditions | 151,224 | 176,103 | 197,502 | 214,950 | 242,077 | 265,992 | 289,560 |
| CC4 | Four or more simultaneous conditions | 20,425 | 23,695 | 26,585 | 29,041 | 32,960 | 36,469 | 39,901 |
| Sum of all CDL Diseases (including multiples) | | 4,015,863 | 4,678,156 | 5,195,894 | 5,580,920 | 6,145,386 | 6,616,605 | 7,078,417 |
| **Number of People with CDL Diseases** | | **2,987,745** | **3,476,626** | **3,848,285** | **4,117,082** | **4,503,996** | **4,821,470** | **5,131,046** |
| **Number of People with Multiple Disease** | | **835,594** | **977,571** | **1,096,375** | **1,190,107** | **1,332,451** | **1,455,052** | **1,576,670** |
| Proportion of People with CDL Diseases | | 9.7% | 10.1% | 10.6% | 11.0% | 11.7% | 12.4% | 13.0% |
| Proportion of People with Multiple Disease | | 2.7% | 2.8% | 3.0% | 3.2% | 3.5% | 3.7% | 4.0% |

**Assumes public prevalence, diagnosis and treatment rates are the same as in medical schemes**

Source: IMSA NHI Policy Brief 3: Chronic Disease and Future NHI

The ROLE of Multidisciplinary Team

# MDT in Chronic Disease Management

Decreasing the Number

# Management of Chronic Diseases


- Multidisciplinary teams (MDTs) are a core component of **integrated chronic disease management** in South Africa, bringing together various healthcare professionals to provide holistic, patient-centered care and improve health outcomes.
- There are several ways a South Africa may tackle this problem other than simply increasing the budget for healthcare. Example of Western Cape Department of Health: attempts to intervene in the “up-stream” causes of disease.
- Germany implemented disease management programmes in their national system in 2002.  Other countries to introduce chronic disease management programmes include Singapore, Australia, Japan, Brazil, Argentina, France, Canada, Spain and India.
- Medical schemes in South Africa have developed wellness programmes, disease management programmes and  patient support programmes. South African medical schemes and managed care organisations are amongst the leaders worldwide in this field.
- Disease management and wellness programmes are areas where the private sector can add significant value to decreasing the ever growing trend/burden of chronic diseases, no matter the details of the funding design.
- Health Care Providers (HCP) to play a pivotal role in ensuring that every patient is referred to a patient support programme upon being diagnosed with a chronic condition.
- Awareness on the treating HCP that it will take a team not one man to compact the GIANT of NCD.

MANAGEMENT

# Prevention of Disease Progression

**Life style modification – Behavioral Science | Disease of lifestyle**

## Road Map to Recovery

Diagnosis

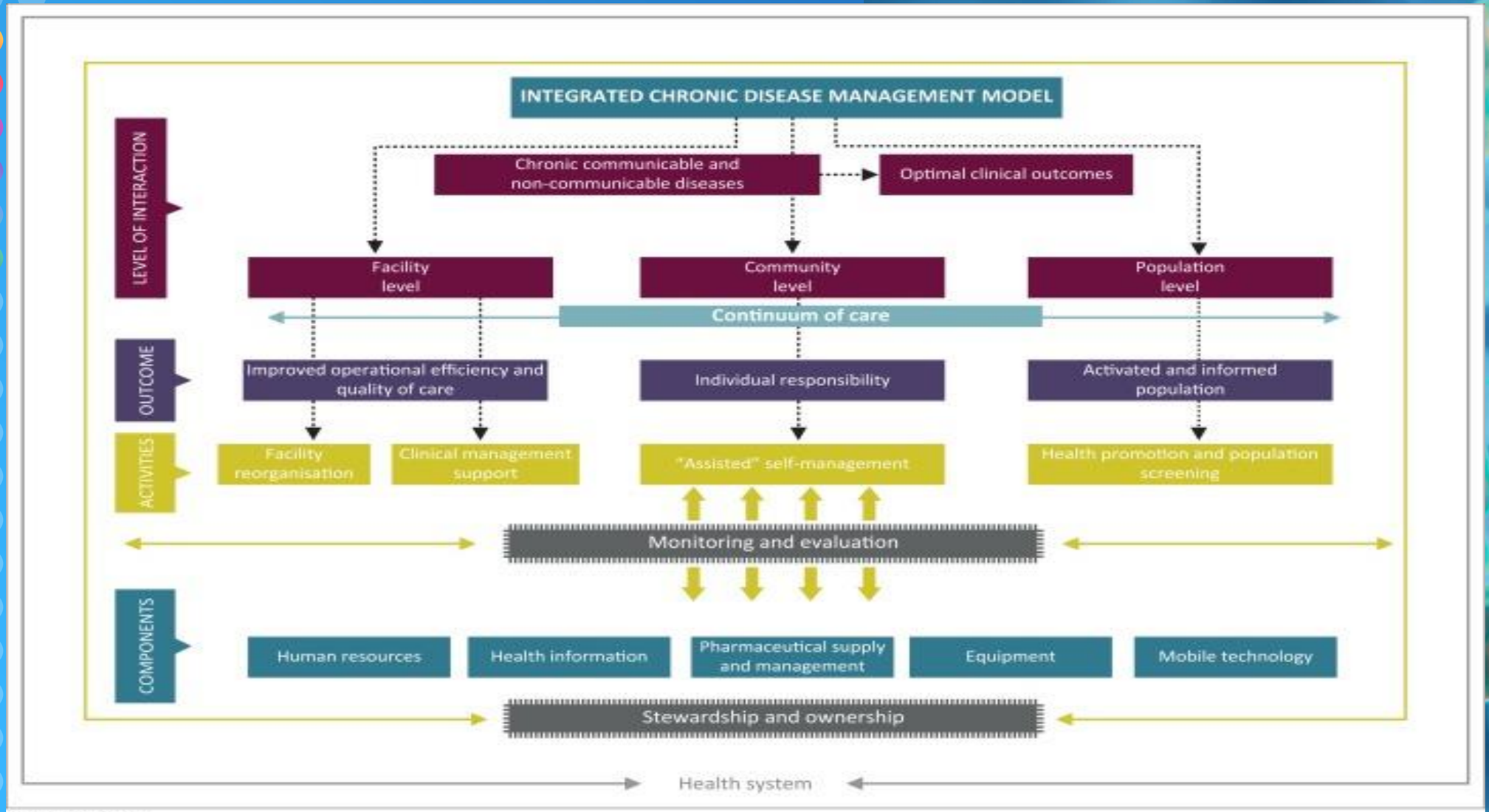
Lifestyle Modification


Rx Adherence

Acceptance

Sustainability

# INTEGRATED CHRONIC DISEASE MANAGEMENT MODEL




*Source*: NDoH 2014

# It’s take more than One…

South Africa has implemented policies like the **Integrated Chronic Disease Management (ICDM) model** and the **Policy Framework and Strategy for Ward-Based Primary Healthcare Outreach Teams** to promote and support multidisciplinary care, especially at the primary healthcare (PHC) level.

**TEAM**

Challenges in implementing MDTs can include logistical issues (e.g., conflicting schedules), communication barriers, and professional hierarchies, all of which require structured protocols and training to overcome

General Practitioner and Specialists Physicians

Biokinetist

PODIATRIST

Nurse Practitioner


Social Worker

Physiotherapist

Dietitian

Pharmacist

# The Strain within the Health Care Sector

UNITED we Can DO better and Achieve MORE

South Africa’s state of health reflects the complex interplay of a dysfunctional health system still grappling with the historical legacy of apartheid. While there has been a decline in infectious diseases, the country now faces a rising burden of NCDs. This shift has exposed critical gaps in the healthcare infrastructure, which is in desperate need of revitalisation. Addressing these challenges requires strong and ethical leadership, alongside multisectoral collaboration and innovation, to effectively tackle the broader determinants of health and ensure a more equitable and sustainable healthcare system for all.

South Africa's healthcare system faces strain from a large, unequal two-tiered system, a growing disease burden, workforce shortages, and financial challenges. The public sector, which serves most of the population, is underfunded, resulting in severe staff shortages, increased workloads, and long waiting times. This is worsened by issues like corruption, a "brain drain" of skilled professionals, and the rising costs of health inflation in the private sector.


**Health Care Professionals UNITE in building a Better South Africa for ALL**

# Conclusion

**Chronic disease Management remains a complex yet very important element within our health care system and we all have a role to place in lessening the burden associated with preventable complications.**

# Reference list


- Anderson G, Horvath J. The growing burden of chronic disease in America. Public Health Rep. 2004;119(3):263–70. doi: 10.1016/j.phr.2004.04.005. [DOI] [PMC free article] [PubMed] [Google Scholar]
- .Peltzer K, Phaswana-Mafuya N. Hypertension and associated factors in older adults in South Africa. Cardiovasc J Afr. 2013;24(3):67–71. doi: 10.5830/CVJA-2013-002. [DOI] [PMC free article] [PubMed] [Google Scholar]
- Agborsangaya CB, Lau D, Lahtinen M, Cooke T, Johnson JA. Multimorbidity prevalence and patterns across socioeconomic determinants: a cross-sectional survey. BMC Public Health. 2012;12:201. doi: 10.1186/1471-2458-12-201. [DOI] [PMC free article] [PubMed] [Google Scholar]
- Alaba O, Chola L. The social determinants of multimorbidity in South Africa. Int J Equity Health. 2013;12:63. doi: 10.1186/1475-9276-12-63. [DOI] [PMC free article] [PubMed] [Google Scholar]
- .Petry NM. A comparison of young, middle-aged, and older adult treatment-seeking pathological gamblers. The Gerontologist. 2002; 42(1):92–99. doi: 10.1093/geront/42.1.92. [DOI] [PubMed] [Google Scholar]
- Weimann A, Dai D, Oni T. A cross-sectional and spatial analysis of the prevalence of multimorbidity and its association with socioeconomic disadvantage in South Africa: a comparison between 2008 and 2012. SocSci Med. 2016;163:144–156. doi: 10.1016/j.socscimed.2016.06.055
- Aboderin I, Kalache A, Ben Shlomo Y, Lynch JW, Yajnik CS, Kuh D, et al. Geneva: World Health Organization; 2001. Life course perspectives on coronary heart disease, stroke and diabetes: key issues and implications for policy and research. [Google Scholar]
- 4.Word Health Organisation . Geneva: World Health Organization; 2005. Preventing chronic diseases, a vital investment. [Google Scholar]
- 5.Young F, Critchley JA, Johnstone LK, Unwin NC. A review of co-morbidity between infectious and chronic disease in Sub Saharan Africa: TB and diabetes mellitus, HIV and metabolic syndrome, and the impact of globalization. Globalization and Health. 2009;5:1–9. doi: 10.1186/1744-8603-5-9.[DOI] [PMC free article] [PubMed] [Google Scholar]
- 6.Guilbert JJ. The World Health Report 2002: reducing risks, promoting healthy life. Education for Health. 2003 May-Aug;16(2):230–230. doi: 10.1080/1357628031000116808. [DOI] [PubMed] [Google Scholar]
- 7.Sarah Dougan Statistics South Africa, Mortality and causes of death in South Africa 1997-2003: findings from death notification. Weekly releases (1997–2007); 10, Issue 13: 31/Mar/2005. doi: 10.2807/esw.10.13.02674-en. [DOI] [PubMed] [Google Scholar]
- 8.VanZyl S, van der Merwe LJ, Walsh CM, Groenewald AJ, van Rooyen FC. Risk-factor profiles for chronic diseases of lifestyle and metabolic syndrome in an urban and rural setting in South Africa. Afr J Prim Health Care Fam Med. 2012;4(1):346. [Google Scholar]
- 9.Fortin M, Dubois MF, Hudon C, Soubhi H, Almirall J. Multimorbidity and quality of life: a closer look. Health and Qual Life Outcomes. 2007;5:52. doi: 10.1186/1477-7525-5-52.