



HEALTH 2030: A CASE STUDY COVID-19 AND DIABETES

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ABSTRACT

Healthy People 2030's overarching goals are to: Attain healthy, thriving lives and well-being free of preventable disease, disability, injury, and premature death. Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all. Trends in general health outcome indicators (including life expectancy, infant mortality, and general mortality) provide a broad picture of health in the United States. Health indicators are commonly used to make large-scale or community health-related decisions. By describing the current health of a population, the areas that need improvement become evident, and policy-makers and health professionals can work to fill these gaps. Once interventions are put in place to try to improve the health of a population, health indicators can then be used to evaluate the success of the intervention. Additionally, health indicators can highlight health disparities in a population.

KEYWORDS : Health 2030**INTRODUCTION**

Immunization is a global health and development success story, saving millions of lives every year. We now have vaccines to prevent more than 20 life-threatening diseases, helping people of all ages live longer, healthier lives. Immunization is the foundation of the primary health care system and an indisputable human right. It's also one of the best health investments money can buy. Yet despite tremendous progress, far too many people around the world—including nearly 20 million infants each year—have insufficient access to vaccines. In some countries, progress has stalled or even reversed, and there is a real risk that complacency will undermine past achievements.

The COVID-19 pandemic has reminded the world of the power of vaccines to fight disease, save lives, and create a healthier, safer, and more prosperous future. Moving forward, strong immunization systems will be needed to ensure that people everywhere are protected against COVID-19 and other diseases.

The World Health Assembly, with the support of countries and partners, has endorsed a new global vision and strategy, called the Immunization Agenda 2030 (IA2030), to address these challenges over the next decade and save over 50 million lives.

Strategic Priorities

IA2030 has been developed through a "bottom-up" co-creation process, with close engagement of countries to ensure that the vision, strategic priorities and goals are aligned with country needs. As an adaptive and flexible strategy, the IA2030 framework is designed to be tailored by countries to their local context, and to be revised throughout the decade as new needs and challenges emerge.

The Monitoring and Evaluation (M&E) Framework includes tailored indicators to enable the use of data for action to continuously improve immunization programs at all levels. Underneath IA2030's three Impact Goals are seven Impact Goal Indicators to monitor progress across country, regional and global levels. The M&E framework provides strategic priority objectives and indicator options for regions and countries to inform the development of their own M&E Frameworks.

IA2030 goals are designed to inspire action for implementation and support efforts to improve health security, universal health coverage, access and equity for immunization and innovation.

Core Principles

The IA 2030 strategy—to extend the benefits of vaccines to everyone, everywhere—is underpinned by four core principles: it puts people in the centre, is led by countries, implemented through broad partnerships, and driven by data. The IA2030 strategy systematically applies the core principles across each of the strategic priorities.



People-Focused



Country-Owned



Partnership-Based



Data-Enabled

Strategic Priority Goals

Each strategic priority has strategic priority goals as the basis for evaluating progress. These goals complement existing disease-specific goals, broader health goals, and the Sustainable Development Goals (SDGs). The strategic priority goals mirror the ambition of these existing commitments and aim to galvanize efforts to achieve important gains in immunization over the coming decade.

Immunisation Programmes for primary health care/universal health coverage	- Ensure adequate health workforce availability - Build and strengthen comprehensive vaccine-preventable disease surveillance supported by strong and reliable laboratory-based systems - Secure high-quality supply chains and effective vaccine management to facilitate equitable coverage in immunisation and establish synergies with other primary health care supply chains where possible - Generate fit-for-purpose immunisation data for evidence-based decision-making - Ensure functional vaccine safety systems in close collaboration with national regulatory agencies
Commitment & Demand	- Build and sustain strong social, financial and political commitment for immunisation - Strengthen leadership, management and coordination for immunisation at all levels - Ensure people and communities value, actively support and seek out immunisation services
Coverage & Equity	- Reach high equitable immunisation coverage at national level and in all districts - Increase coverage of vaccines among the most disadvantaged populations - Reduce the number of children not reached through the immunisation programme ("zero-dose" children)
Life course & Integration	- Strengthen policies and service delivery to provide new and underused vaccines and appropriate catch-up vaccination across the life-course - Establish integrated delivery touchpoints for immunisation and other public health interventions across the life course
Outbreaks & Emergencies	- Decrease the number and magnitude of outbreaks of epidemic-prone vaccine-preventable diseases - Ensure timely, well-organized responses to outbreaks of epidemic-prone vaccine-preventable diseases - Establish timely and appropriate vaccination services in acute emergencies and humanitarian crises

Supply & Sustainability	• Build and sustain healthy markets across all antigens at the global level • Safeguard access quality assured vaccines in a timely fashion in all countries • Ensure sufficient financial support for immunisation programmes across all countries to achieve universal coverage • Increase immunisation expenditure from domestic resources for aid dependent countries, and when transitioning away from aid, secure government domestic funding to sustain coverage of all vaccines after transition
Research & Innovation	• Establish and strengthen country capacity to identify, create and manage innovation • Develop new vaccines and technologies and improve existing products and services for immunisation programmes • Introduce and scale up new and underused vaccines and improved technologies, services and practices

Immunization is playing a critical role in achieving the Sustainable Development Goals (SDGs). Immunization reaches more people than any other health and social service, making it the foundation of primary health care systems and a key driver toward universal health coverage. This makes immunization critical to SDG3 – to ensure healthy lives and promote well-being for all at all ages. Because health is so fundamental to development, IA2030 will also contribute—either directly or indirectly—to 13 of the other SDGs.

Immunization is an investment for the future, creating a healthier, safer and more prosperous world for all.

Vision 2030: Delivering Optimal Oral Health for All

The Vision 2030 report identifies challenges that will confront dentistry and the oral health community over the next decade and it proposes strategies for how these can be turned into opportunities to improve oral health, reduce oral health inequalities, and contribute to reducing the global burden of oral diseases.

This report also emphasizes the responsibility of individual oral healthcare professionals to maintain an appropriate level of competency throughout their professional lives, and the necessity to shoulder a leadership role within the healthcare community and society more widely.

The report is intended to be updated at regular intervals based on local and global requirements, emerging health issues, and the achievement of key performance indicators. It is not intended to be prescriptive, but instead to provide guidance contingent on local needs, conditions, and circumstances.

Leading Health Indicators

1. Access to Health Services.
2. Clinical Preventive Services.
3. Environmental Quality.
4. Maternal Infant and Child Health.
5. Mental Health.
6. Nutrition, Physical Activity, and Obesity.
7. Oral Health.
8. Reproductive and Sexual Health.

Diabetes, also known as diabetes mellitus, is a group of common endocrine diseases characterized by sustained high blood sugar levels. Diabetes is caused by either a lack of insulin-secreting beta-cells in the pancreas due to an autoimmune response (type 1 diabetes) or an imbalance between blood sugar level and insulin production (type 2 diabetes), and can be precipitated by pregnancy (gestational diabetes). Diabetes, if left untreated, leads to many health complications. Untreated or poorly treated diabetes accounts for approximately 1.5 million deaths per year.

There is no widely-accepted cure for most cases of diabetes. The most common treatment for type 1 diabetes is insulin replacement therapy (insulin injections). Anti-diabetic medications such as metformin and semaglutide, as well as lifestyle modifications, can be used to prevent or respond to type 2 diabetes. Gestational diabetes normally resolves shortly after delivery.

As of 2019, an estimated 463 million people had diabetes

worldwide accounting for 8.8% of the adult population. Type 2 diabetes makes up about 90% of all diabetes cases. The prevalence of the disease continues to increase, most dramatically in low- and middle-income nations. Rates are similar in women and men, with diabetes being the 7th-leading cause of death globally. The global expenditure on diabetes-related healthcare is an estimated USD760 billion a year.

WHO diabetes diagnostic criteria						
Condition	2-hour glucose		Fasting glucose		HbA1c	
Unit	mmol/L	mg/dL	mmol/L	mg/dL	mmol/mol	DCCT %
Normal	< 7.8	< 140	< 6.1	< 110	< 42	< 6.0
Impaired fasting glycaemia	< 7.8	< 140	6.1–7.0	110–125	42–46	6.0–6.4
Impaired glucose tolerance	≥ 7.8	≥ 140	< 7.0	< 126	42–46	6.0–6.4
Diabetes mellitus	≥ 11.1	≥ 200	≥ 7.0	≥ 126	≥ 48	≥ 6.5

Diabetes mellitus is diagnosed with a test for the glucose content in the blood, and is diagnosed by demonstrating any one of the following:

1. Fasting plasma glucose level ≥ 7.0 mmol/L (126 mg/dL).
For this test, blood is taken after a period of fasting, i.e. in the morning before breakfast, after the patient had sufficient time to fast overnight.
2. Plasma glucose ≥ 11.1 mmol/L (200 mg/dL) two hours after a 75 gram oral glucose load as in a glucose tolerance test (OGTT)
3. Symptoms of high blood sugar and plasma glucose ≥ 11.1 mmol/L (200 mg/dL) either while fasting or not fasting
4. Glycated hemoglobin (HbA_{1c}) ≥ 48 mmol/mol (≥ 6.5 DCCT%).

A positive result, in the absence of unequivocal high blood sugar, should be confirmed by a repeat of any of the above methods on a different day. It is preferable to measure a fasting glucose level because of the ease of measurement and the considerable time commitment of formal glucose tolerance testing, which takes two hours to complete and offers no prognostic advantage over the fasting test. According to the current definition, two fasting glucose measurements above 7.0 mmol/L (126 mg/dL) is considered diagnostic for diabetes mellitus.

Per the WHO, people with fasting glucose levels from 6.1 to 6.9 mmol/L (110 to 125 mg/dL) are considered to have impaired fasting glucose. People with plasma glucose at or above 7.8 mmol/L (140 mg/dL), but not over 11.1 mmol/L (200 mg/dL), two hours after a 75 gram oral glucose load are considered to have impaired glucose tolerance. Of these two prediabetic states, the latter in particular is a major risk factor for progression to full-blown diabetes mellitus, as well as cardiovascular disease. The American Diabetes Association (ADA) since 2003 uses a slightly different range for impaired fasting glucose of 5.6 to 6.9 mmol/L (100 to 125 mg/dL).

Diabetes Management

The term *diabetes* includes several different metabolic disorders that all, if left untreated, result in abnormally high concentration of a sugar called glucose in the blood. Diabetes mellitus type 1 results when the pancreas no longer produces significant amounts of the hormone insulin, usually owing to the autoimmune destruction of the insulin-producing beta cells of the pancreas. Diabetes mellitus type 2, in contrast, is now thought to result from autoimmune attacks on the pancreas and/or insulin resistance. The pancreas of a person with type 2 diabetes may be producing normal or even abnormally large amounts of insulin. Other forms of diabetes mellitus, such as the various forms of maturity onset diabetes

of the young, may represent some combination of insufficient insulin production and insulin resistance. Some degree of insulin resistance may also be present in a person with type 1 diabetes.

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