

WHO Health Statistics : Applied through the lens of the Global Monitoring Framework for the Prevention and Control of Noncommunicable Diseases

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UNITE IN THE FIGHT AGAINST **NCDs**



**World Health
Organization**

Millenium Development Goals



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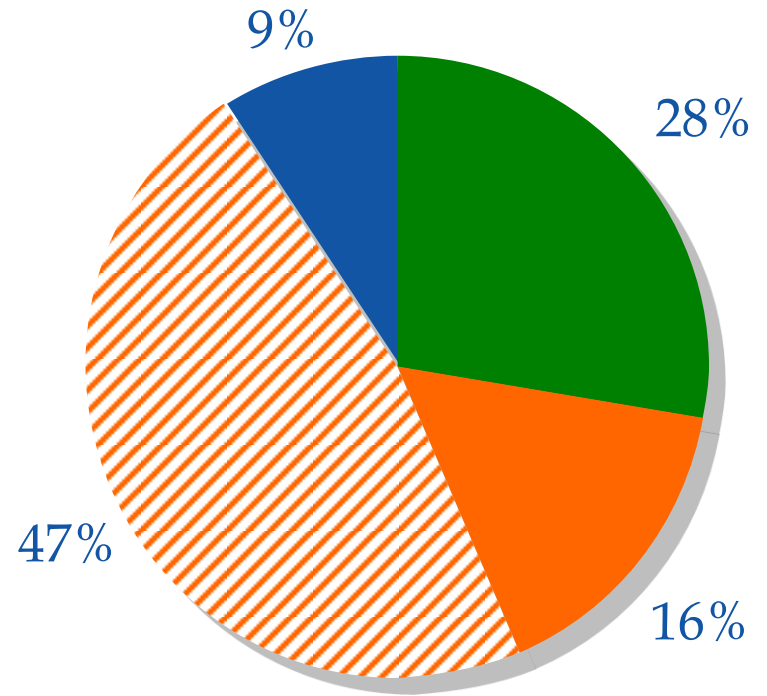
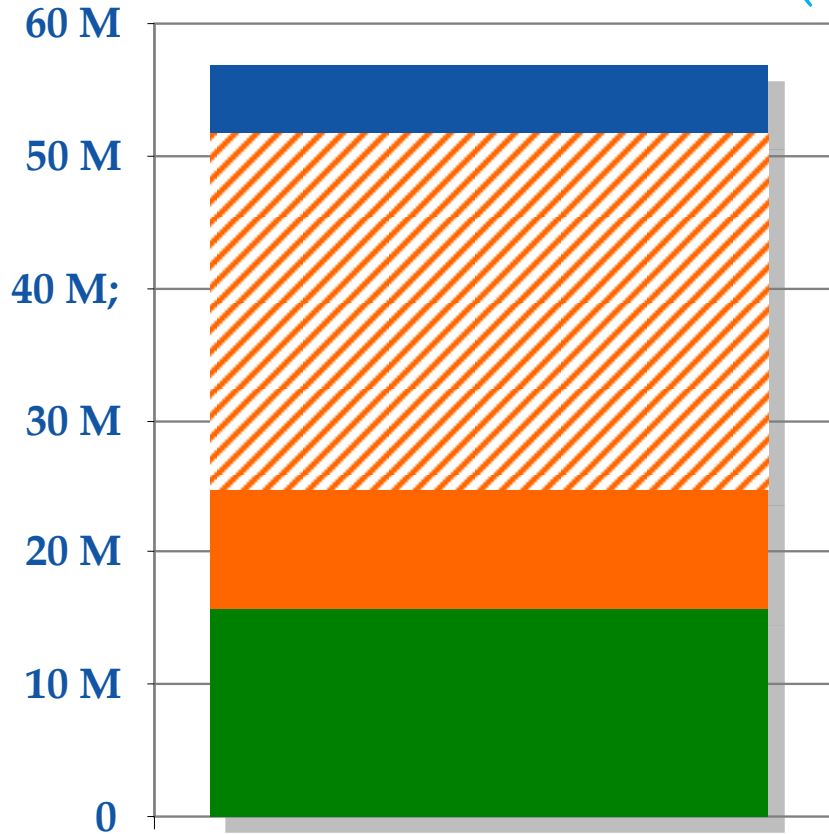
World Health Organization

WHO Health statistics and information systems


- **information** for public health decision making, health sector reviews, planning and resource allocation and programme monitoring and evaluation.
- **to improve country, regional and global health information standards, tools and methods** for data collection, compilation, analysis, and dissemination and
- **country measurement and evaluation**, collaborating with countries on data collection, analysis and approaches to address priority data gaps and strengthen country health information systems
- **WHO Global Health Observatory**, a repository to the wealth of WHO data and statistics, analysis and reports on key health themes.



Non-Communicable Diseases (NCDs): 36 million deaths (63% of global mortality)



2008 estimates

 Communicable, maternal, perinatal and nutritional conditions

 NCDs < 60

 NCDs > 60

 Injuries



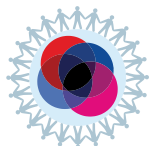
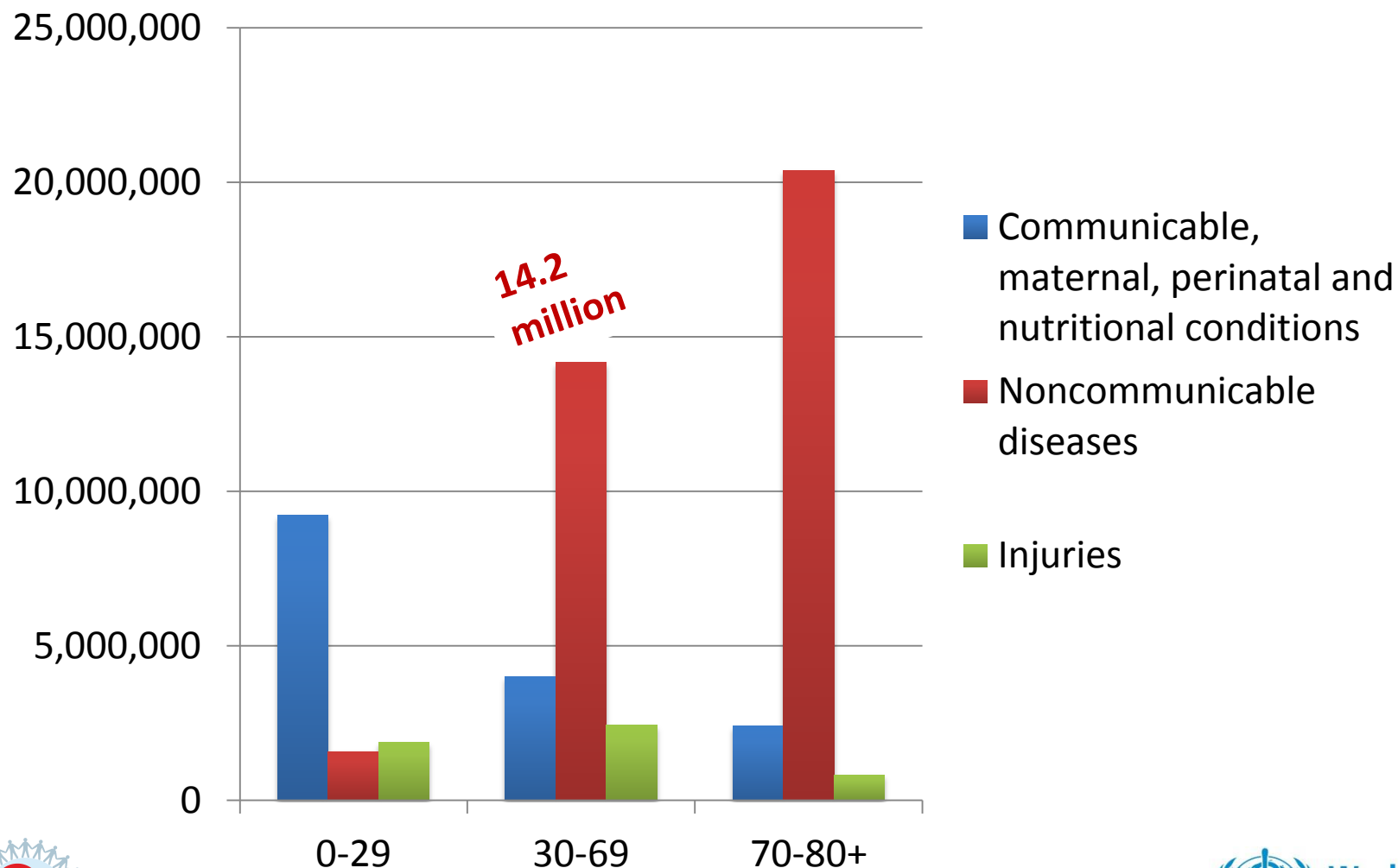
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World Health Organization

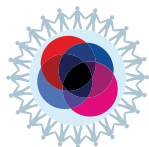
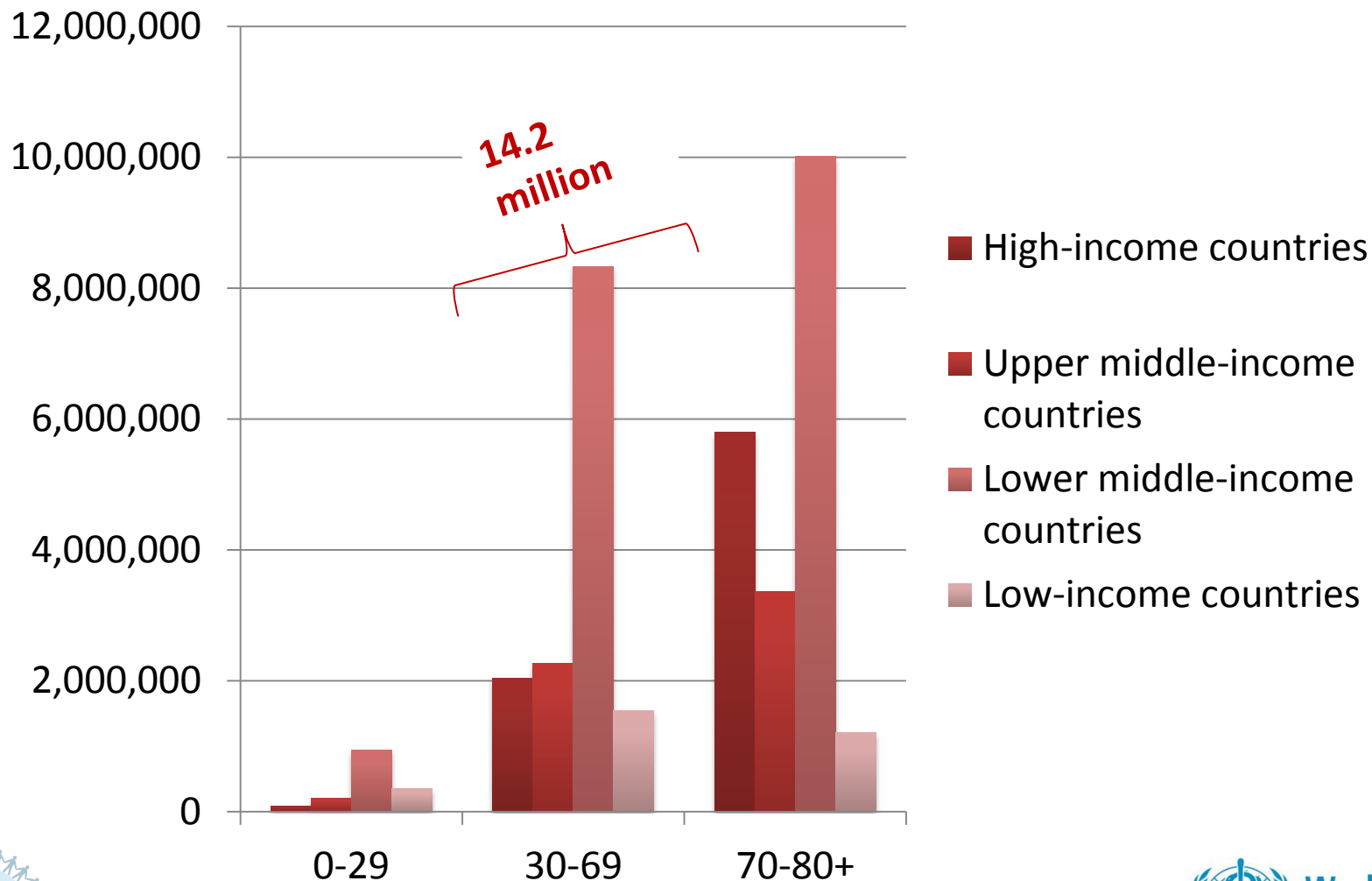
What do we care about?

14 million people die every year from NCDs between 30 and 70



What do we care about?

86% of premature deaths from NCDs occur in developing countries



Noncommunicable Diseases --

Building a global architecture to support national efforts



**Global roadmap
to realize the commitments from
Heads of State and Government and Ministers of Health:
Global Action Plan for the Prevention and Control of NCDs
2013-2020**

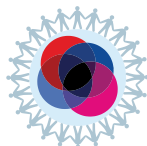
Vision:

A world free of the avoidable burden of NCDs

Goal:

To reduce the preventable and avoidable burden of morbidity, mortality and disability due to NCDs by means of multisectoral collaboration and cooperation at national, regional and global levels

**Global roadmap
to realize the commitments from
Heads of State and Government and Ministers of Health:
Global Action Plan for the Prevention and Control of NCDs
2013-2020**



Resolution WHA66.10 – Global NCD Action Plan 2013-2020

Objective 1

To raise the priority accorded to the prevention and control of NCDs in global, regional and national agendas and internationally agreed development goals, through strengthened international cooperation and advocacy



Objective 2

To strengthen national capacity, leadership, governance, **multisectoral action** and partnerships to accelerate country response for the prevention and control of NCDs



Objective 3
To reduce **modifiable risk factors for NCDs and underlying social determinants through creation of health-promoting environments**



Objective 4

To strengthen and orient health systems to address the prevention and control of non-communicable diseases and the **underlying social determinants** through people-centred primary health care and universal health coverage



Objective 5

To **promote and support national capacity for high-quality research** and development for the prevention and control of NCDs



Objective 6

To **monitor the trends and determinants of NCDs and evaluate progress in their prevention and control**



It comprises a set of actions which, when performed collectively by Member States, international partners and the WHO Secretariat, will attain 9 voluntary global targets for NCDs by 2025

Millennium Development Goals and NCDs

- Poverty: Household income is spent on health care for NCDs, medicines, tobacco and alcohol use
- Hunger: Underweight children and overweight adults are often found in the same households
- Maternal health: Malnutrition increases the risk of gestational diabetes and poor maternal health
- Child health: Malnutrition in pregnancy is associated with a vulnerability to obesity, cardiovascular disease and diabetes



- Education: NCD-related costs displace household resources for education
- HIV/AIDS: Increases the risk of cancers, and ARVs increase the risk of cardiovascular diseases
- Tuberculosis: Tobacco and alcohol use, and diabetes are associated with TB deaths
- Essential drugs: Cost-effective medicines to treat NCDs are available in low-cost generic forms, but remain inaccessible and unaffordable to most who need them

Global Monitoring Framework

25 indicators

Mortality & Morbidity

Unconditional probability of dying
between ages 30 and 70 years
from cardiovascular diseases, cancer,
diabetes or chronic respiratory diseases

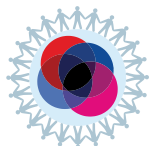
Cancer incidence by type of cancer

Risk Factors

Harmful use of alcohol (3)
Low fruit and vegetable intake
Physical inactivity (2)
Salt intake
Saturated fat intake
Tobacco use (2)
Raised blood glucose/diabetes
Raised blood pressure
Overweight and obesity (2)
Raised total cholesterol

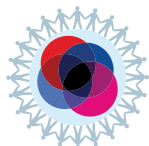
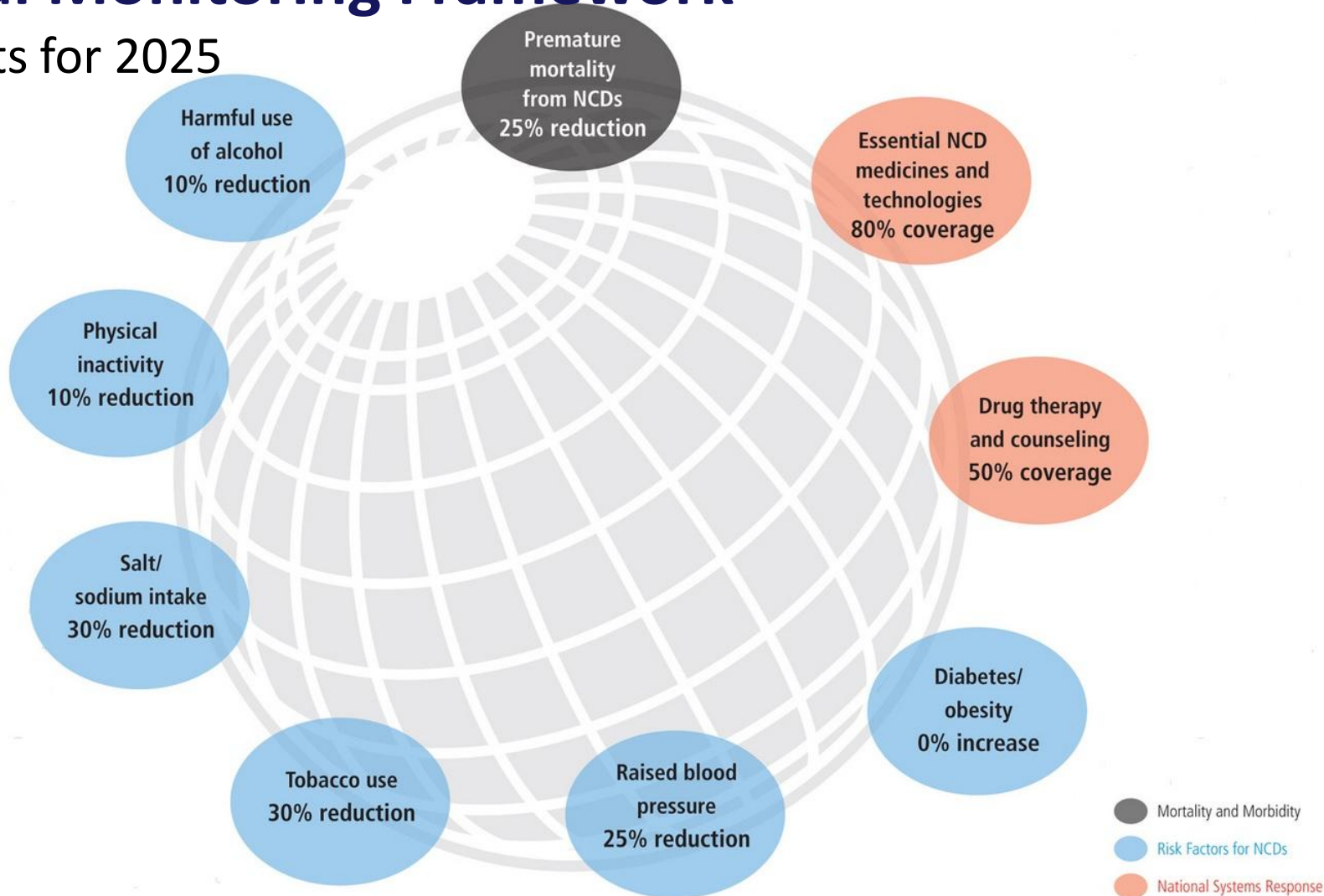
National Systems Response

Cervical cancer screening
Drug therapy and counseling
Essential NCD medicines & technologies
Hepatitis B vaccine
Human Papilloma Virus vaccine
Marketing to children
Access to palliative care
Policies to limit saturated
fats and virtually eliminate
trans fats



Global Monitoring Framework

9 targets for 2025



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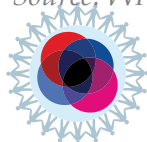
World Health Organization

Quality of cause-of-death statistics reported to WHO by region, 2009

WHO region	No death-registration data	Low quality	Medium quality	High quality	Number of WHO Member States
AFR	42	2	1	1	46
AMR	2	7	13	13	35
SEAR	7	4	0	0	11
EUR	2	11	24	16	53
EMR	9	10	2	0	21
WPR	12	4	7	4	27
Global	74	38	47	34	193

“High quality” refers to data coded using ICD-9 or ICD-10 with coverage $\geq 90\%$ and $< 10\%$ deaths coded to ill-defined symptoms and signs. “Medium quality” refers to data with coverage of 70-90% with 10-20% of deaths coded to ill-defined symptoms and signs. “Low quality” refers to data with coverage $< 70\%$ or with $> 20\%$ of deaths coded to ill-defined symptoms and signs.

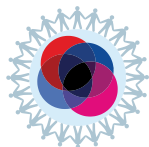
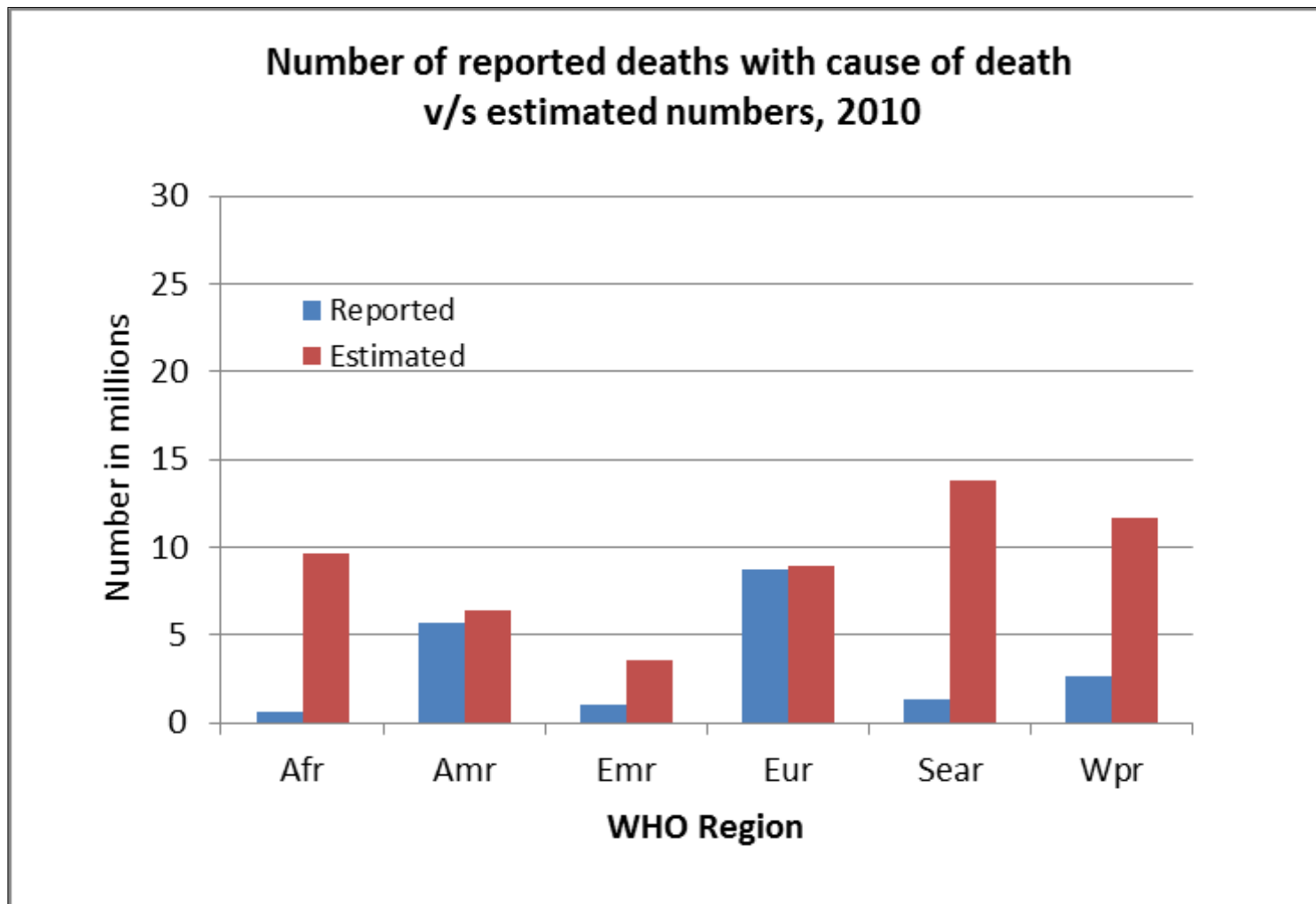
Source: WHO, World Health Statistics 2012



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IN EMR, Only about 30% of all deaths are reported to WHO

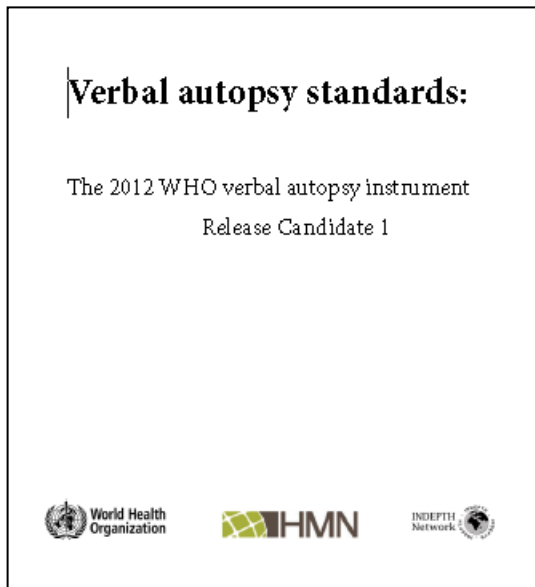


Availability of cause-of-death data

Country/year	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12		
Afghanistan																																			
Bahrain						85		87	88									97	98	99	00	01	02	03	04	05	06	07	08	09	10	11			
Djibouti																																			
Egypt	80					85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11			
Iran (Islamic Republic of)	80	81	82	83	84	85		87												99	00	01			04		06								
Iraq																													08						
Jordan																								03	04				08	09					
Kuwait	80	81	82	83	84	85	86	87						93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11			
Lebanon																		97	98	99															
Libyan Arab Jamahiriya																																			
Morocco											90	91	92	93	94	95	96	97											08						
Oman																		97			00	01						07	08	09	10				
Occupied Palestinian Territory																													08	09					
Pakistan																																			
Qatar																95						00	01			04	05	06	07	08	09	10	11		
Saudi Arabia																														09					
Somalia																																			
Sudan																																			
Syrian Arab Republic	80	81			84	85													98	99	00	01	02	03	04	05	06	07	08	09					
Tunisia																																			
United Arab Emirates																					00						05	06	07	08	09	10			
Yemen																																			



Tools and other aids to improve civil registration and vital statistics data: e.g. Verbal autopsy



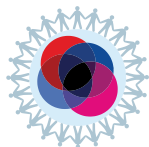
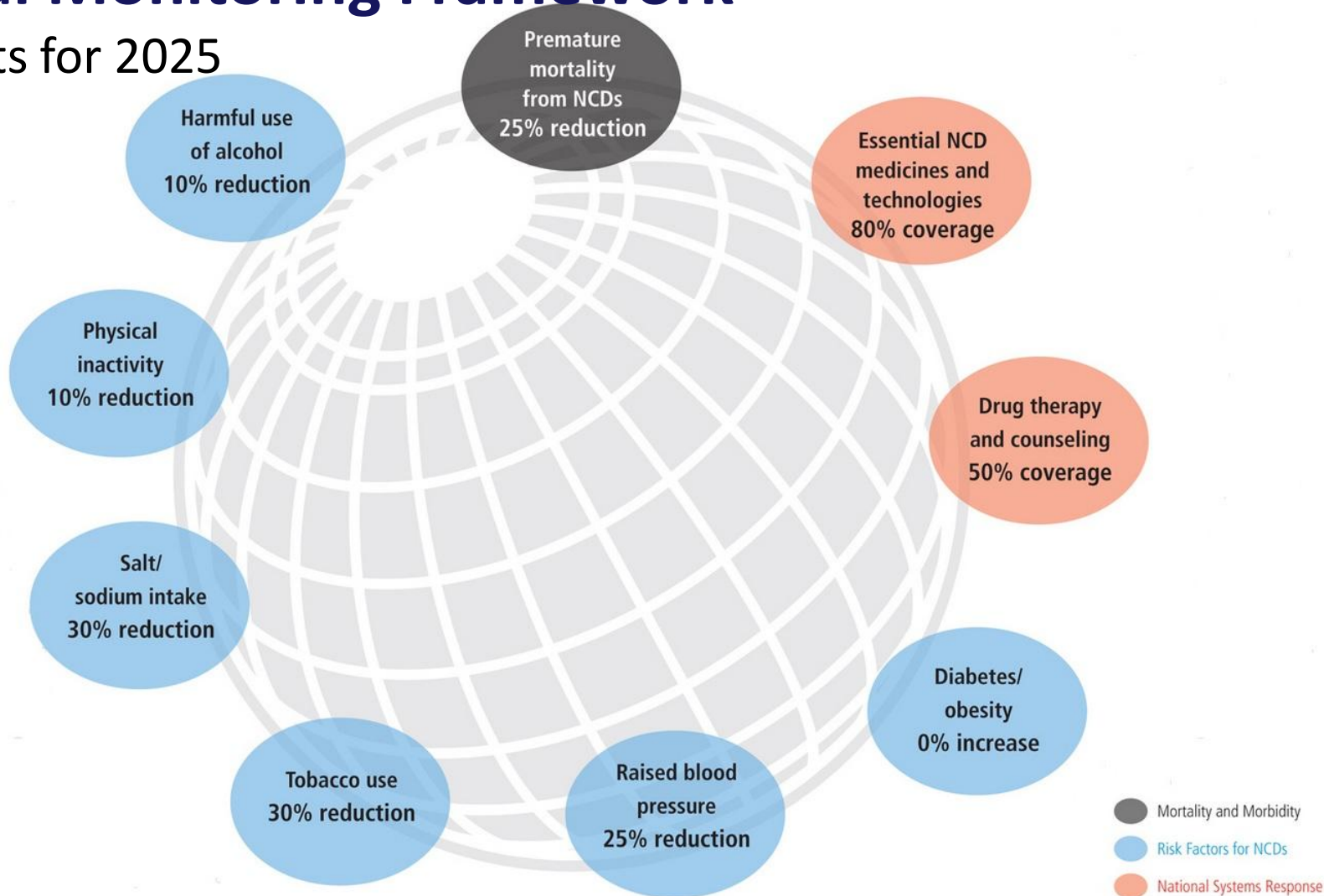
Main objective – to describe the causes of death at the community or population level where civil registration and death certification systems are weak

- used to ascertain cause of a death based on an interview with next of kin or other caregivers.
- Ascribes cause(s) of death using a standardized questionnaire with any other available information to elicit information on signs, symptoms, medical history and circumstances preceding death.
- Rules and algorithms or computer programs, available to assist ascribing best cause of death possible to a limited set of ICD categories



Global Monitoring Framework

9 targets for 2025



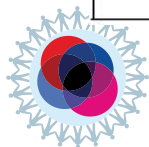
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Examples of evidence based cost-effective interventions identified by WHO

Tobacco use	<ul style="list-style-type: none"> • Tax increases • Smoke-free indoor workplaces and public places • Health information and warnings • Bans on tobacco advertising, promotion and sponsorship
Harmful alcohol use	<ul style="list-style-type: none"> • Tax increases • Restricted access to retailed alcohol • Bans on alcohol advertising
Unhealthy diet and physical inactivity	<ul style="list-style-type: none"> • Reduced salt intake in food • Replacement of trans fat with polyunsaturated fat • Public awareness through mass media on diet and physical activity
Cardiovascular disease (CVD) and diabetes	<ul style="list-style-type: none"> • Counselling and multi-drug therapy for people with a high risk of developing heart attacks and strokes (including those with established CVD) • Treatment of heart attacks with aspirin
Cancer	<ul style="list-style-type: none"> • Hepatitis B immunization to prevent liver cancer (already scaled up) • Screening and treatment of pre-cancerous lesions to prevent cervical cancer



Monitoring exposures and determinants

- Mainstay of country NCD surveillance (survey data for action -- in collaboration with national statistical organisations or offices)
 - Behavioural risk factors (e.g. tobacco smoking)
 - Physiological and metabolic risk factors (e.g. hypertension)
 - Social determinants (e.g. poverty)
- Data collection: general interview plus health examination surveys, including biological and clinical data collection



Examples of NCD population based surveys :

- Topic specific surveys
e.g. Global Tobacco Control Survey (GATS)
or inclusion of standardised Tobacco Questions for Surveys from the GATS into other multi-purpose surveys covering health, social, economic or other issue
- Multi-purpose surveys
e.g. WHO STEPS survey, Global TB survey, Demographic and Health Surveys or national



surveys

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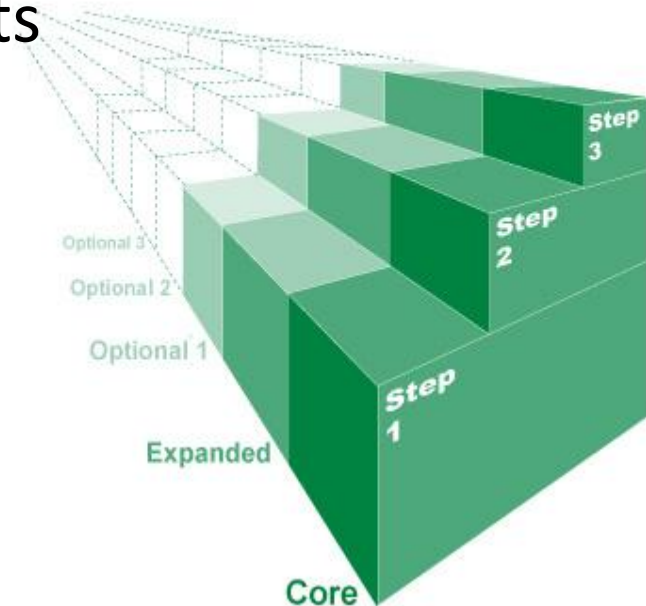
WHO STEPS instrument Implementation Overview

Different levels of risk factor assessment:

- STEP 1 – questionnaire
- STEP 2 – physical measurements
- STEP 3 – blood samples

Three modules per STEP:

- Core
- Expanded
- Optional



Overview of WHO STEPS Questionnaire content

- **Behavioural Risk Factors**

- Tobacco use
- Harmful alcohol consumption
- Unhealthy diet (low fruit and vegetable consumption)
- Physical inactivity

- **Biological Risk Factors**

- Overweight and obesity
- Raised blood pressure
- Raised blood glucose
- Abnormal blood lipids

- **Optional Modules**



Overview of STEPS Questionnaire content

- **Optional modules**
 - Dietary salt
 - Tobacco policy
 - Injury and Violence
 - Mental Health (suicide)
 - Oral Health
 - Sexual Health
 - Health Care



Assistance with collecting data through surveys

- Sampling often done in collaboration with national statistical offices as best agency to draw valid samples from census frames and usually has up-to-date maps
- Standardised questionnaire with core and optional questions and ability to adapt for national needs
- Data collection support (less and less through paper based systems) but through electronic data collection systems
- Standard analytical methods
- Standard reporting systems



NCD Global Monitoring Framework: Indicator Definitions and Specifications

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Draft for review
9/26/2013



Health statistics and information systems

Classifications and indicators

Data collection tools

Data analysis tools

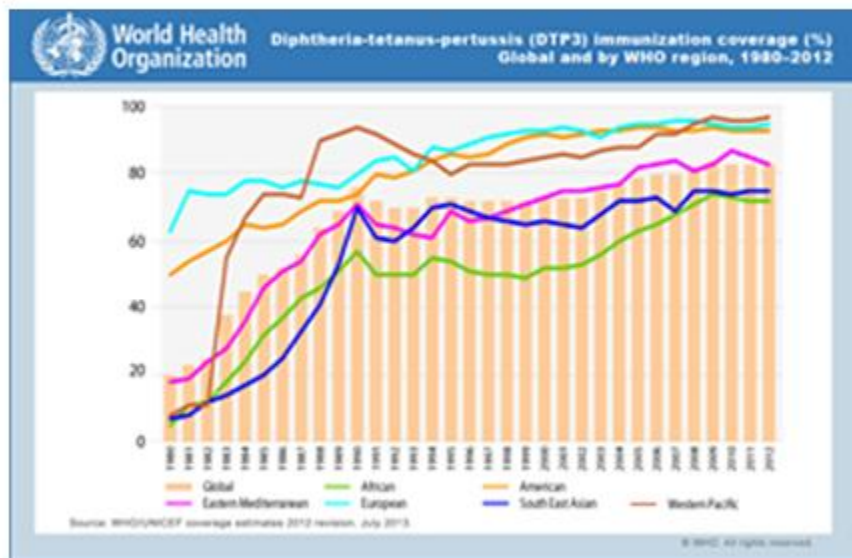
Statistics

Country monitoring and evaluation

Monitoring universal health coverage

Publications

The Global Health Observatory



- A single point of entry to WHO's data and analyses on health priorities,
- Provides comparative data on the health situation, trends and determinants to inform global and country decision making.
- Users can download data sets in various formats, display selected indicators by country and region, and download the customized tables in Excel format.



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Thank you for your attention

