NEGLECTED EPIDEMICS - THE ROLE OF ORAL HEALTH TO ADVANCE PUBLIC HEALTH

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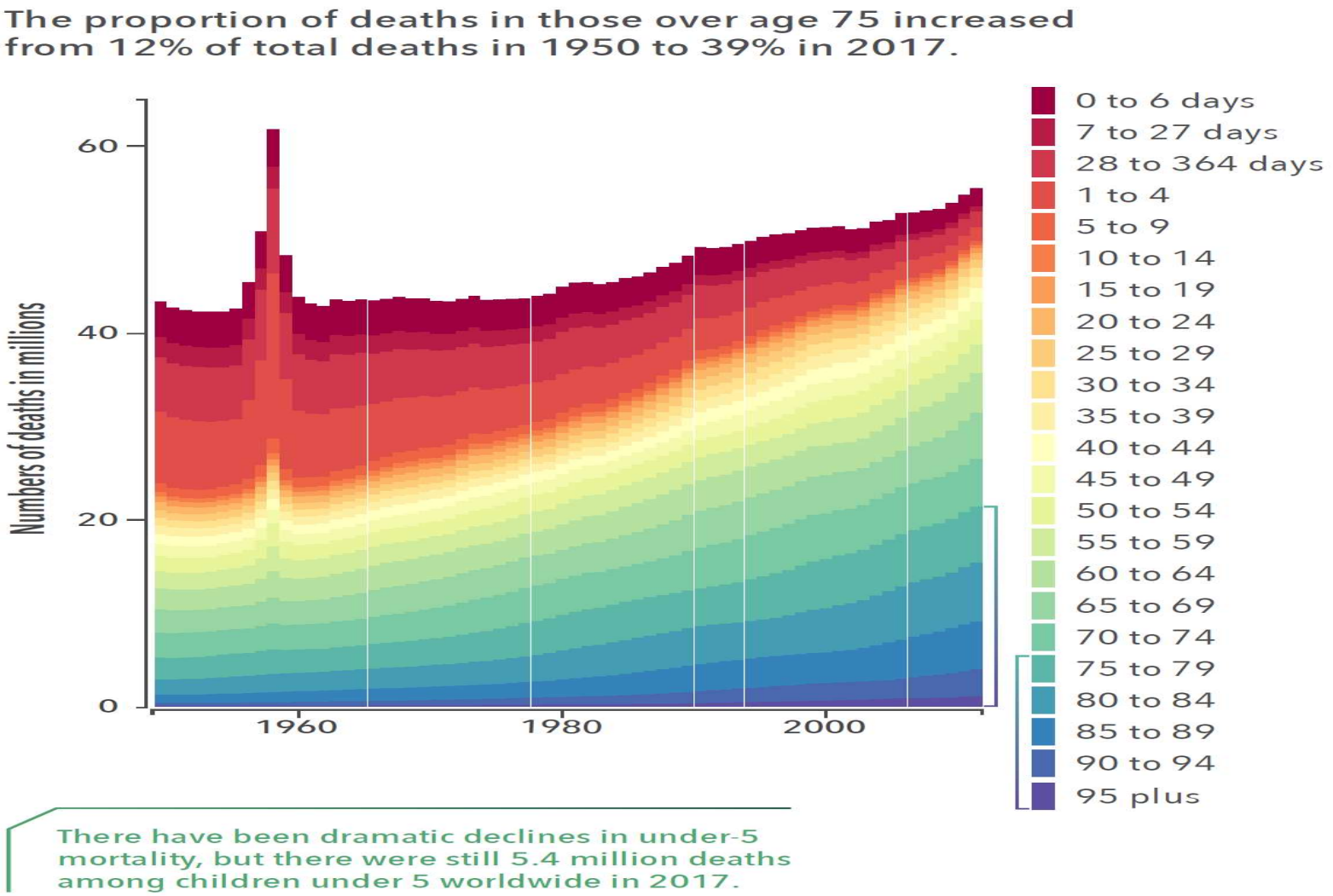
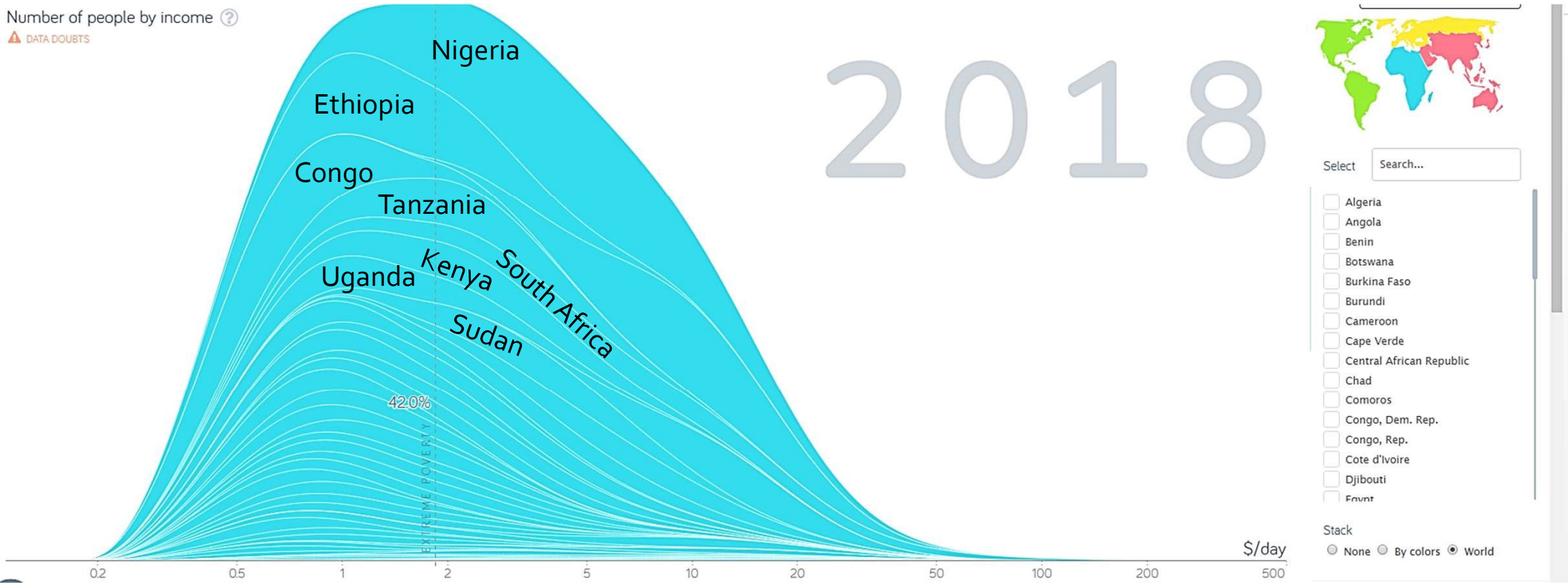
UNIVERSITEIT STELLENBOSCH UNIVERSITY

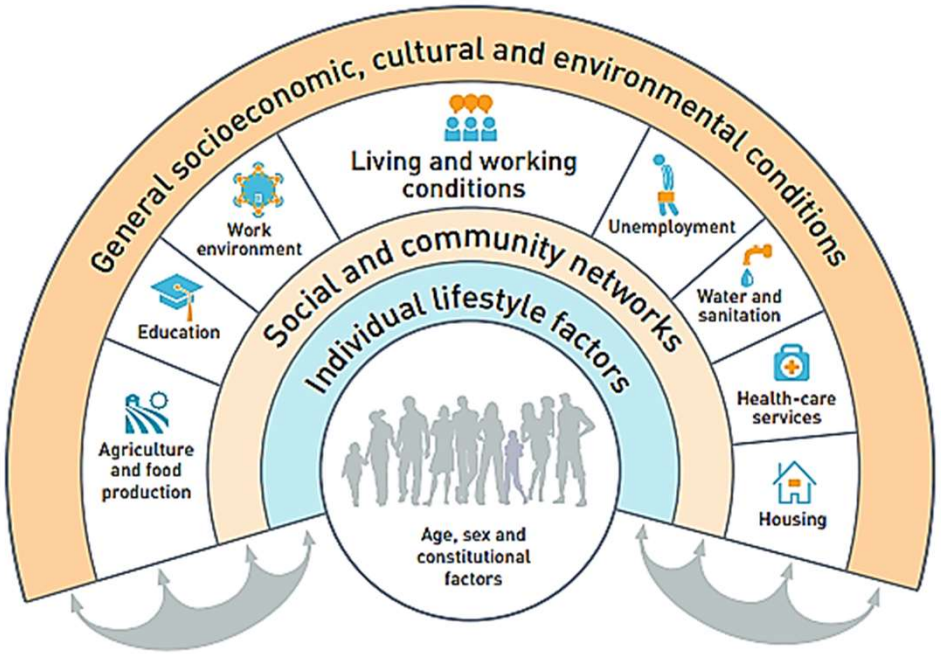
Global Health in the context of inequity





www.gapminder.org

HEALTH EQUITY



OVERVIEW Oral Health Neglected Epidemic

Epidemic

Burden of Oral Diseases and Inequality

Sustainable Development Goals (SDG)

Non-communicable diseases (NCDs)

The role of oral health professionals

Universal Health Coverage (UHC)

Political priorities

The Lagoon, 1947, Henri Matisse

BURDEN OF DISEASES

- GLOBAL -

1. Oral disorders
3.47 bil.

2. Headache disorders
3.07 bil.

3. TB
1.93 bil.

GBD 2017, The Lancet

Oral Health Inequalities and the social gradient

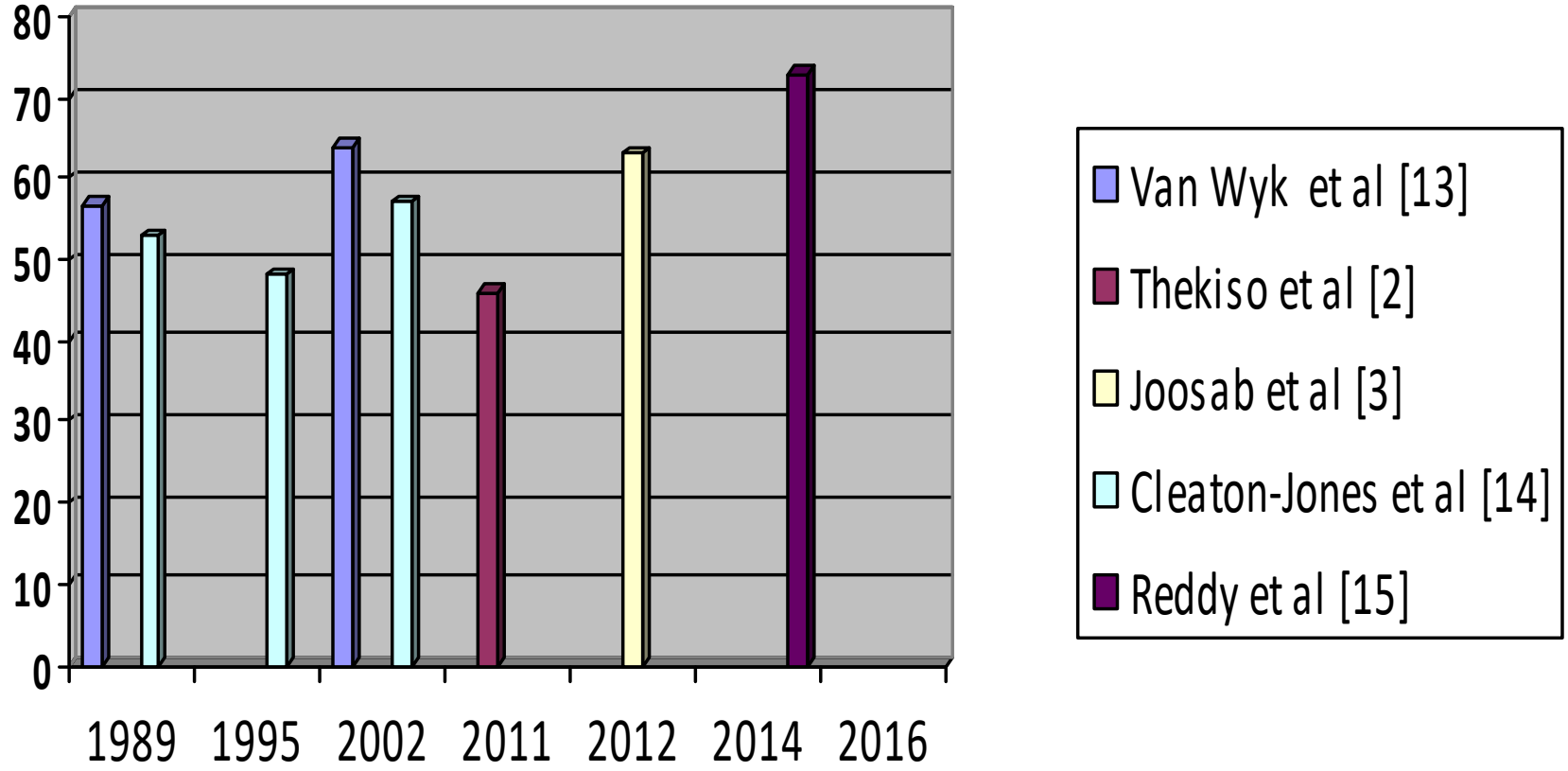
- Oral diseases are more common among the disadvantaged
- Social diseases are socially patterned across the social hierarchy
- The stepwise gradient in health outcomes also occurs across the life course
- disease susceptibility increases down the social gradient

BURDEN OF ORAL DISEASES IN AFRICA

CARIES 42% 15 year old South Africa	**PERIO** 5-20% severe forms	**NOMA** 20 cases/100.000 per year
HIV 50-60% oral manifestations	**TRAUMA** 10-19% 11-13 year old	**CLEFT PALATE** 1/500-700 births

Promoting Oral Health in Africa, WHO Regional Office for Africa 2016

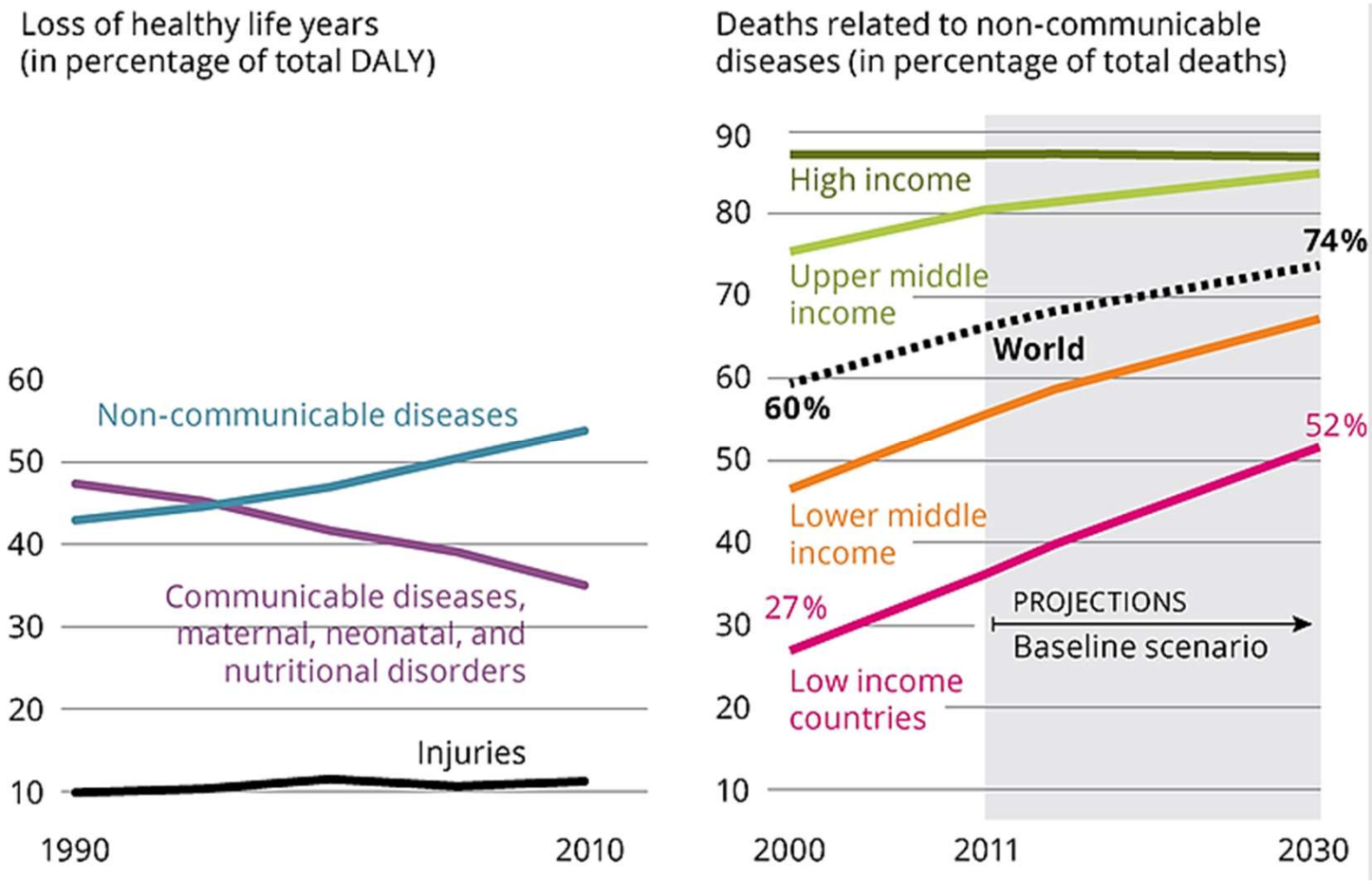
Fang Ngil mask, Gabon


80
70
60
50
40
30
20
10
0
1989
1995
2002
2011
2012
2014
2016
Van Wyk et al [13]
Thekiso et al [2]
Joosab et al [3]
Cleaton-Jones et al [14]
Reddy et al [15]

Inability to attract political attention

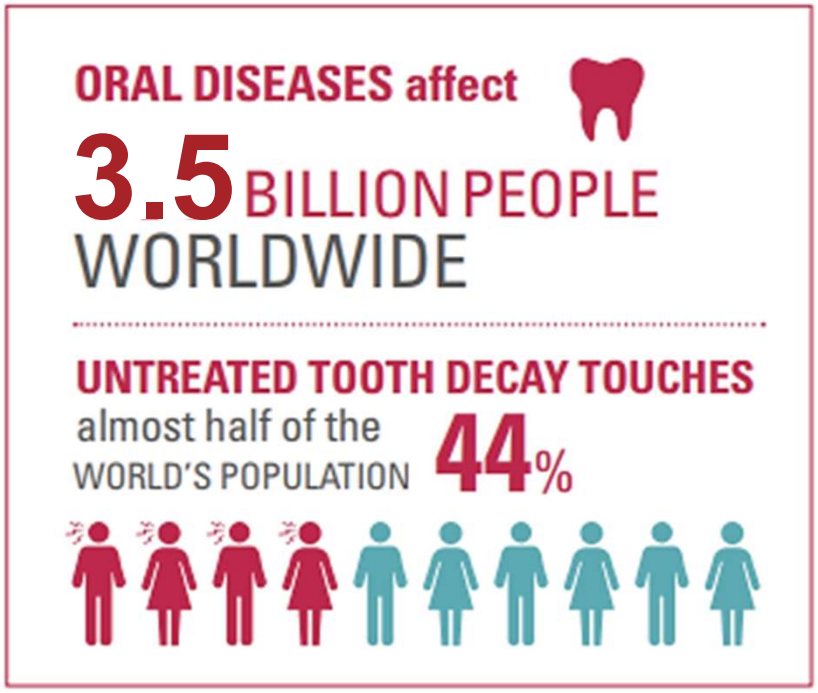
- Public health & political priorities not aligned
- Misleading focus on dentists for service provision
- A hidden burden of oral disease
- Communication gap and knowledge translation

NCDs – The shift

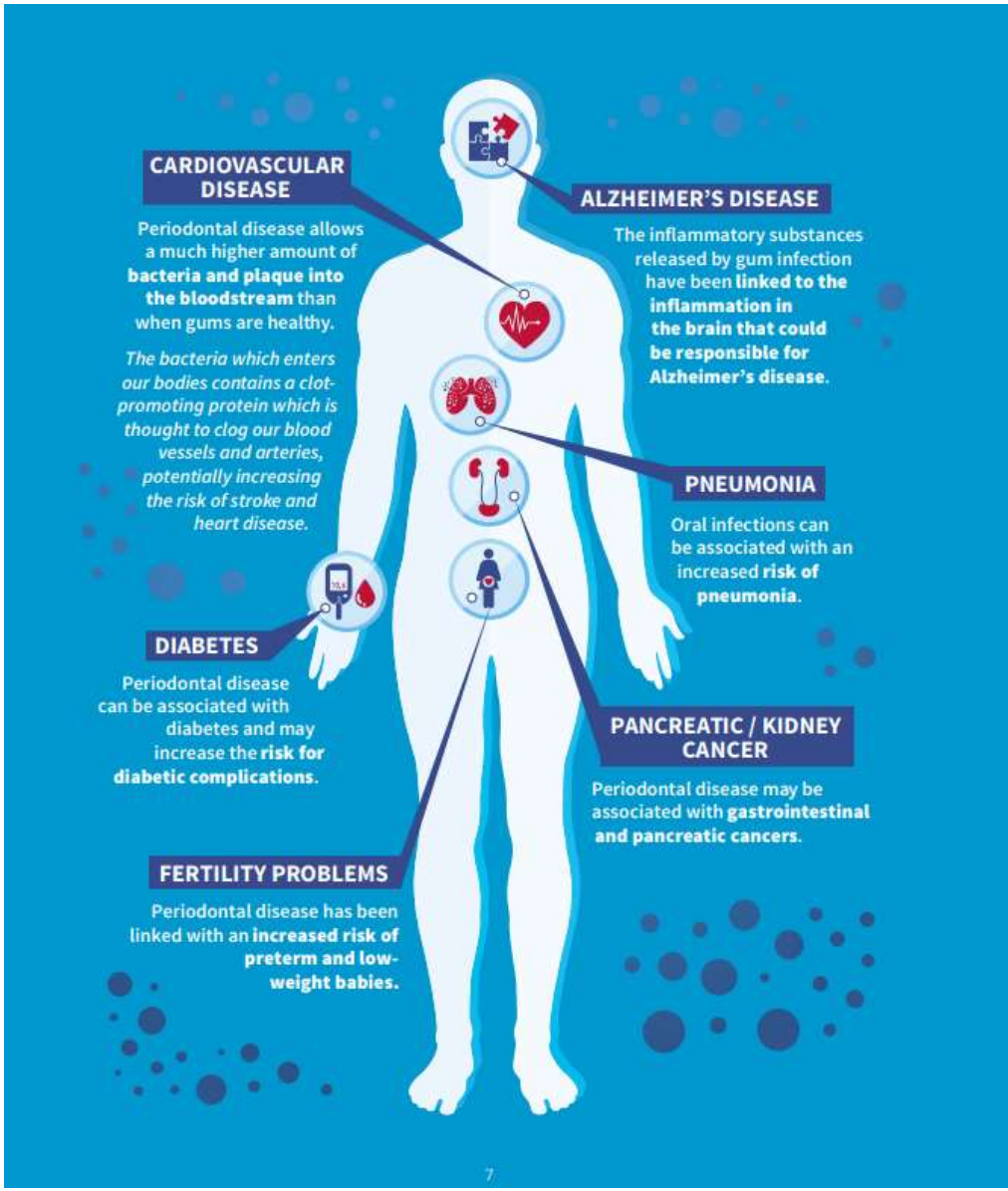


European Environment Agency
https://www.eea.europa.eu/data-and-maps/figures/the-shift-in-global-disease

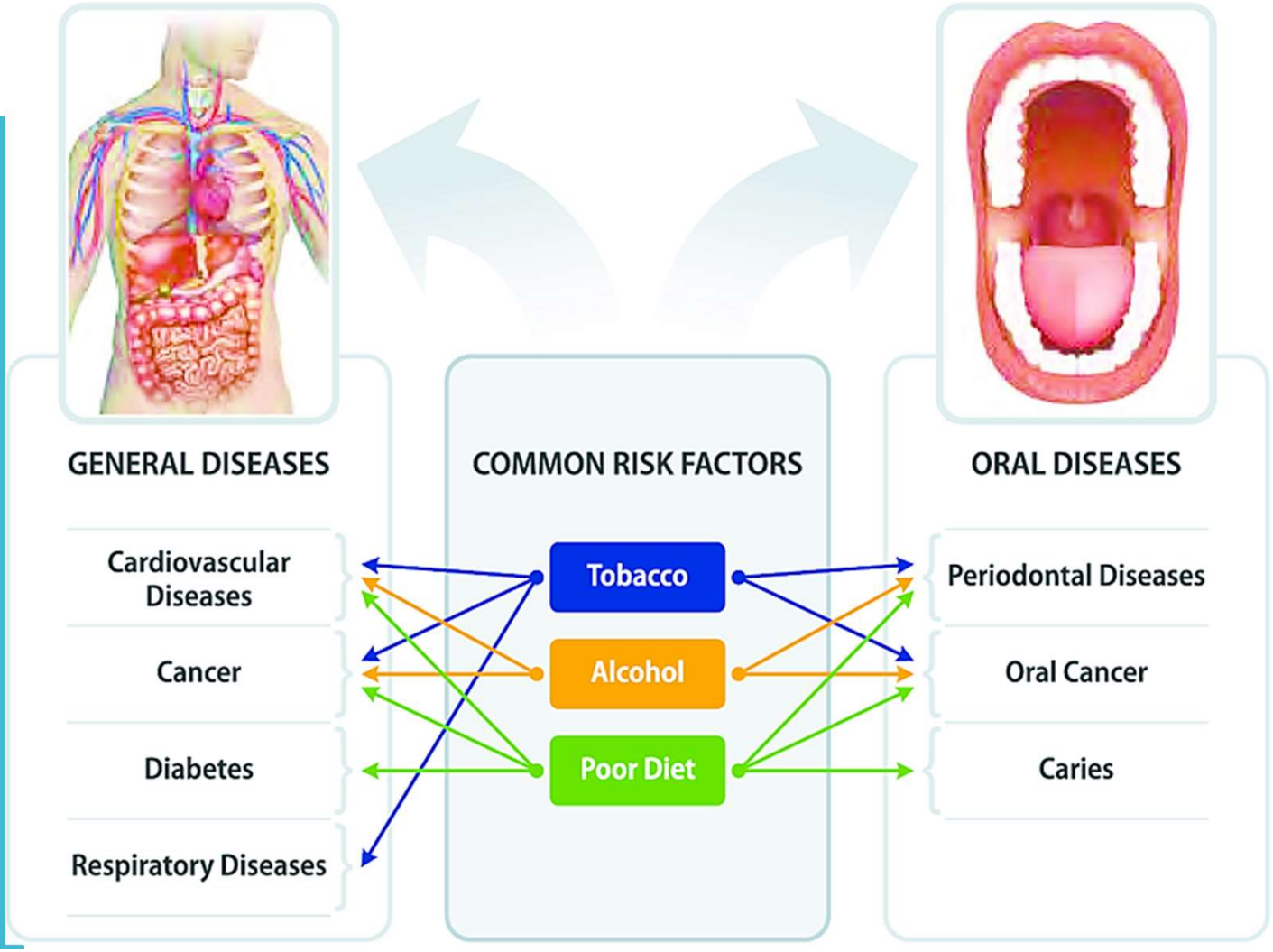
THE IMPACT OF ORAL DISEASES



Accelerating action on oral health and NCDs. FDI 2017
https://www.fdiworlddental.org/resources/brochures/accelerating-action-on-oral-health-and-ncds



COMMON RISK FACTOR APPROACH



WHO, Regional Office for Africa 2016. Promoting Oral Health in Africa: Prevention and control of oral diseases as part of essential noncommunicable disease interventions. http://www.who.int/iris/handle/10665/205886

SUSTAINABLE DEVELOPMENT GOALS (SDGs)

SDG PROGRESSION
SOUTH AFRICA

South Africa

Southern

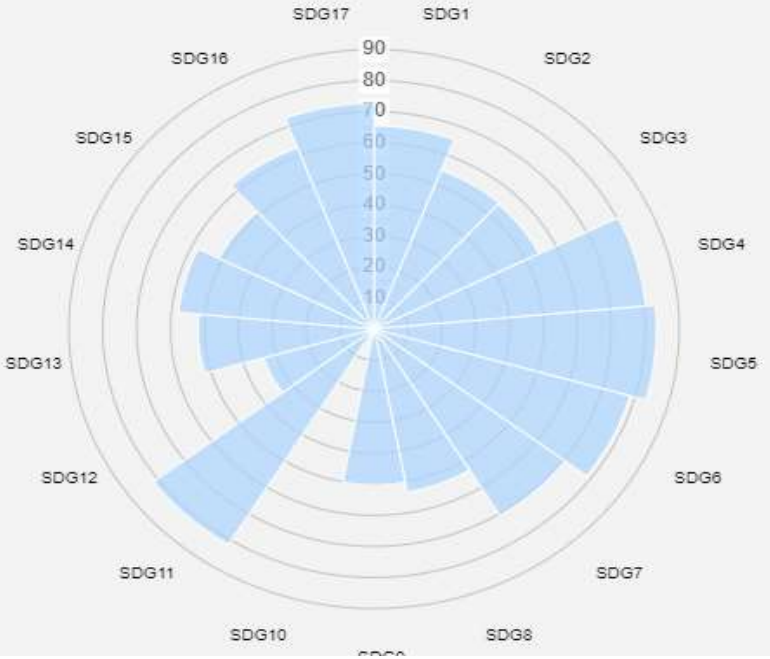
Rank : 9 out of 51

OVERALL PERFORMANCE

Index score

Regional average score

AVERAGE PERFORMANCE BY SDG



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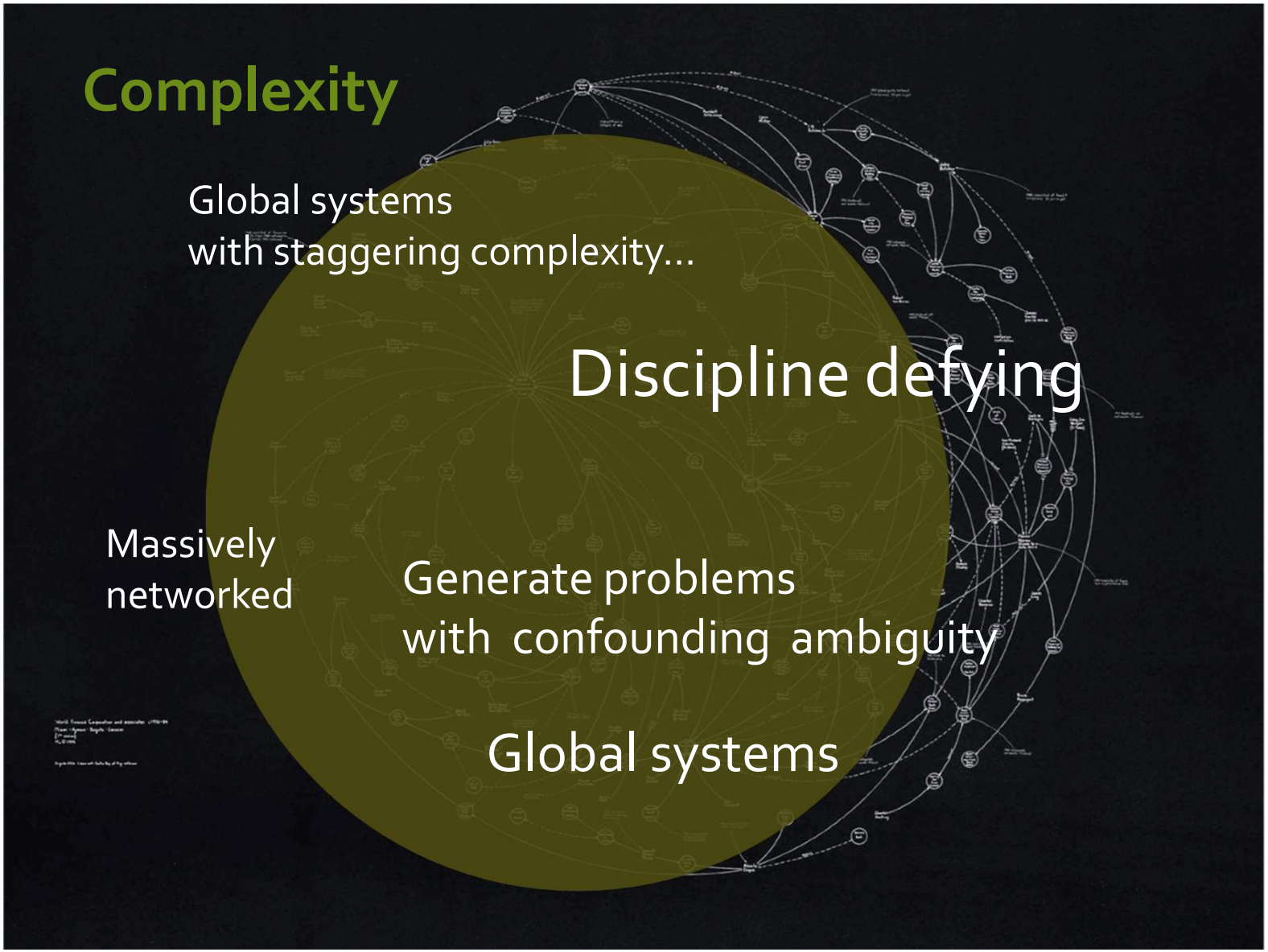
South Africa

SDG17 →

Partnerships for the Goals	Value	Trend
Tax revenue (% GDP)	31.4	→
Government Health and Education spending (% GDP)	14.8	• •
Governmental Statistical Capacity	75.5	↓
Level of customs duties on imports	0.0	• •
Visa Requirement score	120	• •


Complexity
Global systems
with staggering complexity…
Discipline defying
Massively
networked
Generate problems
with confounding ambiguity
Global systems

2.2 End malnutrition

Tooth decay contributes to malnutrition

Edentulousness contributes to nutrition deficits

12.5. Reduce, reuse, recycle and prevent

Green dentistry, Minamata convention Environmentally conscious practice

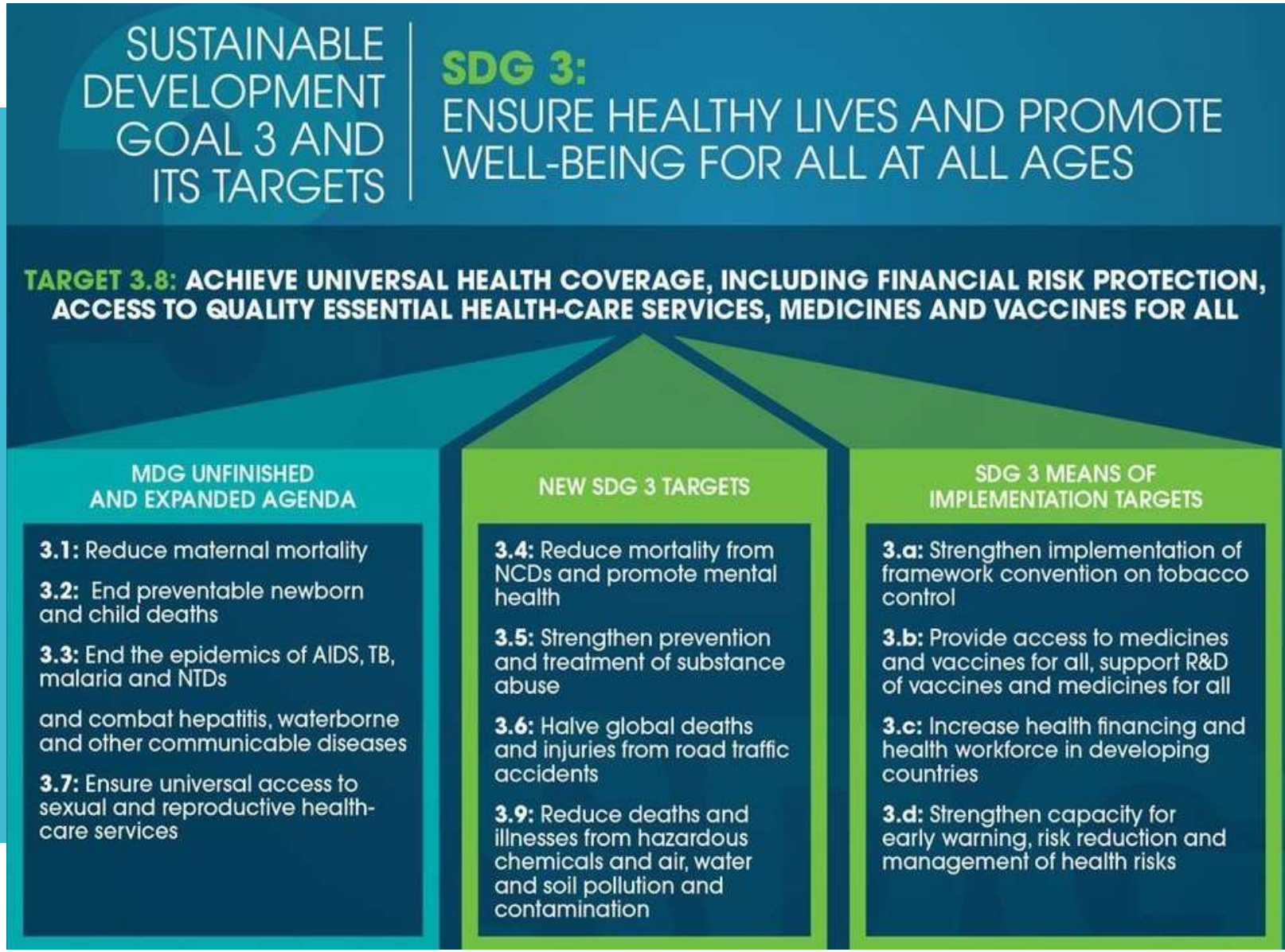
4.1. Free education, effective learning

Oral problems (mainly decay) among most common reasons for missing school and lack of concentration

17.14. Policy coherence

inclusion of oral health in all policies and coherence of benefits and entitlements for basic oral care for everyone

UNIVERSAL HEALTH COVERAGE



LEADING THE WORLD TO OPTIMAL ORAL HEALTH

fdi
FDI World Dental Federation

No Health without Oral Health: How the dental community can leverage the NCD agenda to deliver on the 2030 Sustainable Development Goals

Proceedings of the FDI-NCD Alliance joint session

30 August 2017, Madrid, Spain

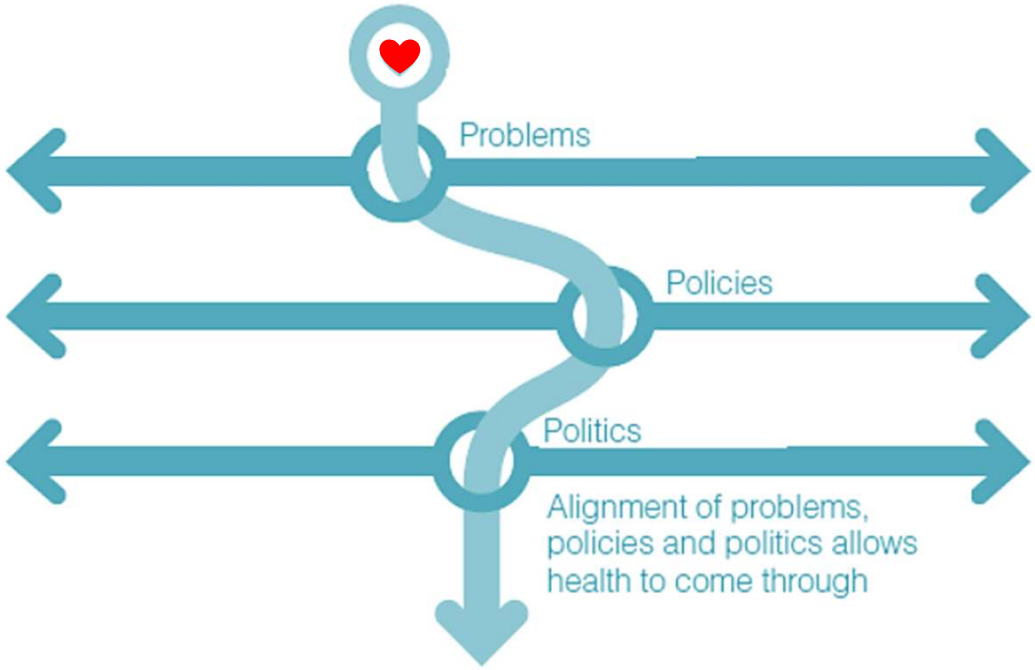
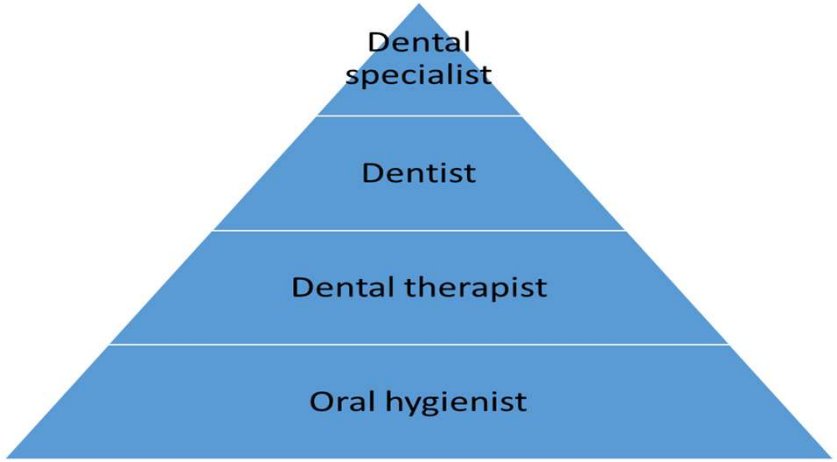
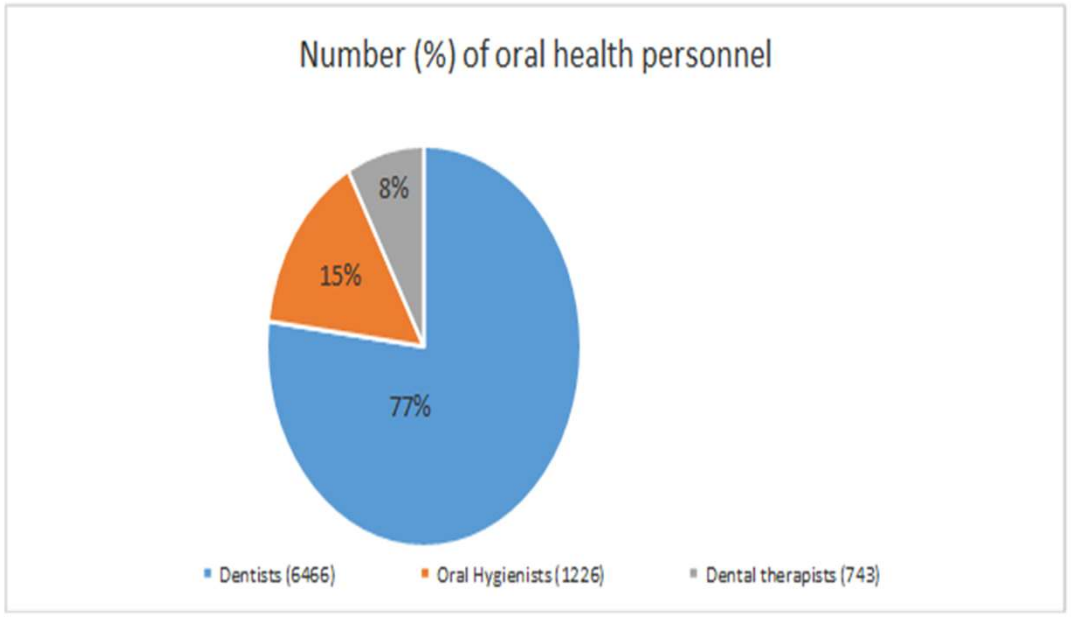


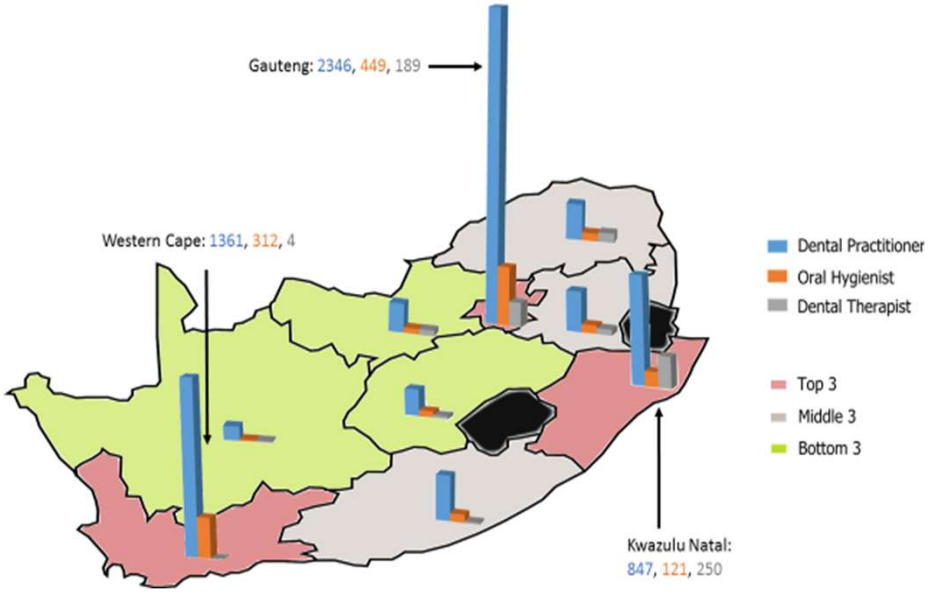
Figure 4: Kingdon's non-linear framework for policymaking.



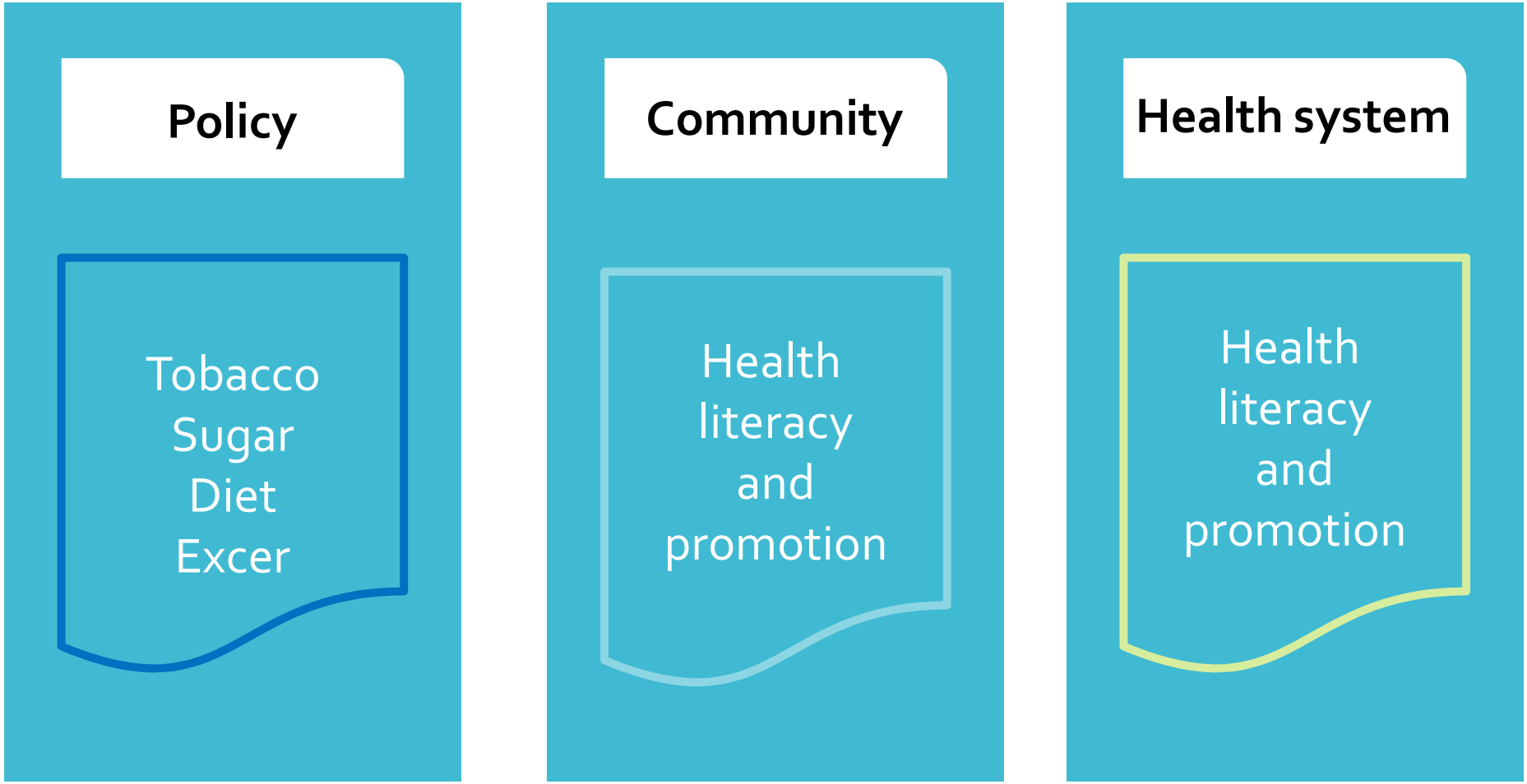
Specialists registered in SA (N=481).

Type of specialist	Number (%)
Maxillo-facial and oral surgeons	144 (30)
Orthodontists	142 (30)
Prosthodontists	83 (17)
Periodontists	57 (12)
Community dentists	36 (7)
Oral pathologists	19 (4)
Total specialists	481 (100)





ORAL HEALTH IN NCD CONTROL AND PREVENTION



SUSTAINABLE DEVELOPMENT GOALS

The goals within a goal: Health targets for SDG 3

3.8	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
3.8.1	Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)
3.8.2	Proportion of population with large household expenditures on health as a share of total household expenditure or income

TAXING SUGARY DRINKS AROUND THE GLOBE

www.ncdfree.org

NCD FREE

DO TAXES REDUCE CONSUMPTION?

IN MEXICO, IN ITS FIRST 2 YEARS, SUGARY DRINK PURCHASES **DECREASED BY 7.6% PER YEAR.** OVER 10 YEARS THIS WILL LEAD TO A **2.54% REDUCTION** IN OBESITY AND

PREVENT 86-134,000 CASES OF DIABETES.

6.7% FRANCE SAW A **6.7% DECLINE** IN DEMAND FOR REGULAR COLA IN THE FIRST 2 YEARS AFTER INTRODUCING A SUGAR-SWEETENED BEVERAGE TAX.

IMPLEMENTED SUGAR TAXES WORLDWIDE

* LISTS ACCURATE AT TIME OF PRODUCTION.

1. COOK ISLANDS
2. KIRIBATI
3. FRENCH POLYNESIA
4. MEXICO
5. CHILE
6. DOMINICA
7. BARBADOS
8. PORTUGAL
9. SPAIN (CATELONIA)
10. IRELAND
11. UNITED KINGDOM
12. FRANCE
13. BELGIUM
14. NORWAY
15. FINLAND
16. ESTONIA
17. HUNGARY
18. ST HELENA
19. SOUTH AFRICA
20. SAUDIA ARABIA
21. UNITED ARAB EMIRATES
22. MAURITIUS
23. SEYCHELLES
24. BRUNEI
25. NAURU
26. FIJI
27. SAMOA
28. TONGA

28 COUNTRIES &

7 US CITIES (so far...)*

1. SAN FRANCISCO, CA
2. BERKELEY, CA
3. ALBANY, CA
4. OAKLAND, CA
5. SEATTLE, WA
6. BOULDER, CO
7. PHILADELPHIA, PA

DO TAXES IMPACT RETAILERS?

AFTER 1 YEAR, IN LOW-INCOME NEIGHBOURHOODS IN BERKELEY, USA, SUGARY DRINK CONSUMPTION **DECLINED BY 21%,** HOWEVER, SALES OF UNTAXED BEVERAGES IN BERKELEY ROSE, SUCH THAT **OVERALL BEVERAGE SALES ROSE.**

THE WORLD HEALTH ORGANIZATION RECOMMENDS SUGARY DRINKS TAXES AS AN EFFECTIVE MEASURE TO

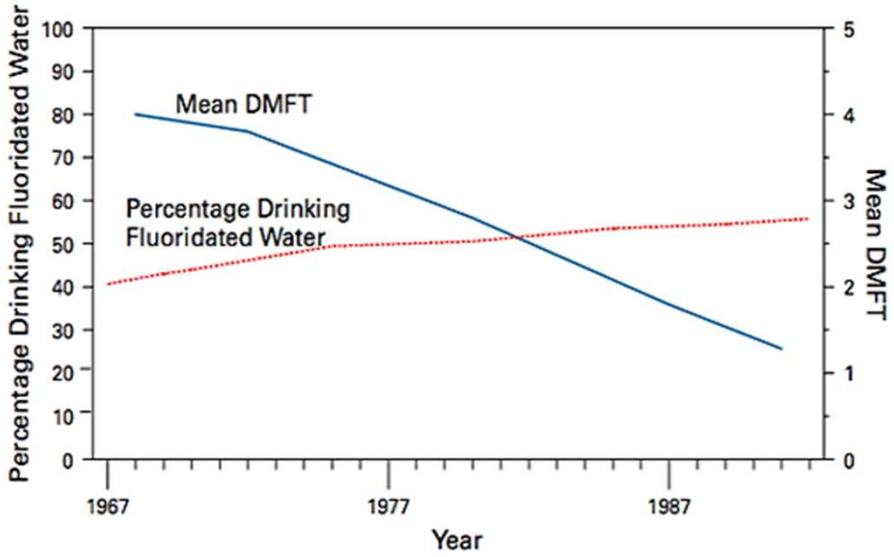
"REDUCE OVER-CONSUMPTION OF SUGAR & HALT THE EPIDEMIC OF OBESITY AND DIABETES"

SOURCES

1. Colchero, M. Arantxa, et al. "In Mexico, Evidence Of Sustained Consumer Response Two Years After Implementing A Sugar-Sweetened Beverage Tax." Health Affairs, vol. 36, no. 3, 2017, pp. 564-571.
2. Barrientos-Gutierrez, Tonatiuh et al. "Expected Population Weight and Diabetes Impact of the 1-Peso-per-Litre Tax to Sugar Sweetened Beverages in Mexico." Ed. Rodrigo Huerta-Quintanilla. PLoS ONE 12.5(2017): e0176336. PMC.
3. Falbe J, et al. "Impact of the Berkeley Excise Tax on Sugar-Sweetened Beverage Consumption", American Journal of Public Health 106, no. 10 (October 1, 2016): pp. 1865-1871.
4. Silver LD, et al. "Changes in prices, sales, consumer spending, and beverage consumption one year after a tax on sugar-sweetened beverages in Berkeley, California, US: A before-and-after study." PLoS Med 14(4):e1002283. https://doi.org/10.1371/journal.pmed.1002283
5. World Health Organization. "Fiscal policies for diet and the prevention of noncommunicable diseases." May 2016, Geneva. Available at: http://www.who.int/dietphysicalactivity/publications/fiscal-policies-diet-prevention/en/
6. Food taxes and their impact on competitiveness in the agri-food sector. Rotterdam, The Netherlands: European Competitiveness and Sustainable Industrial Policy Consortium; 2014.

@NCDFREE #NCDFREE

Water fluoridation



Source:
Centers for Disease Control (1999). Achievements in public health, 1900-1999: Fluoridation of Drinking water to prevent caries. NMWR; 48: 933-40.

70 years
research on dental decay

Populations
with high to moderate risk

Decreases
disparity in rates of decay in communities

Benefits
for public health outweigh risks

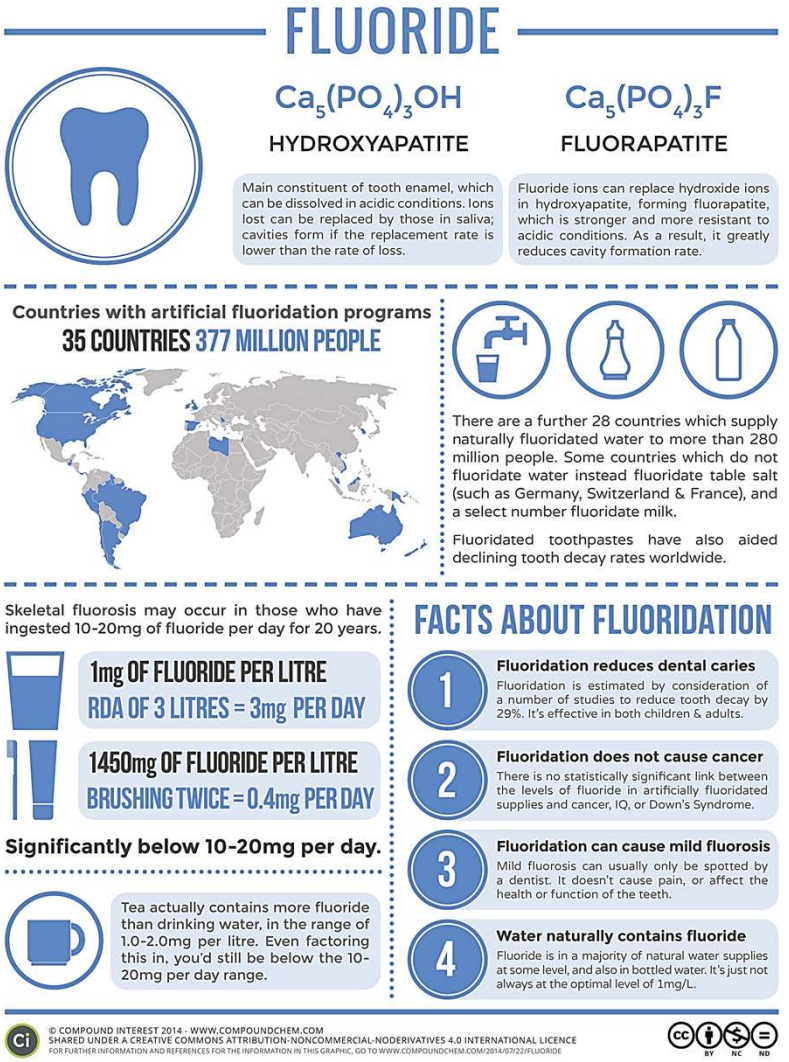
Petersen PE, Ogawa H. Prevention of dental caries through the use of fluoride –the WHO approach. Community Dental Health (2016) **33,** 66–68

The common risk factor approach – MEDICINES

Fluoride

The only realistic way to decrease the burden of dental caries

WHO, FDI. Global Consultation on Oral Health through Fluorides 2006.

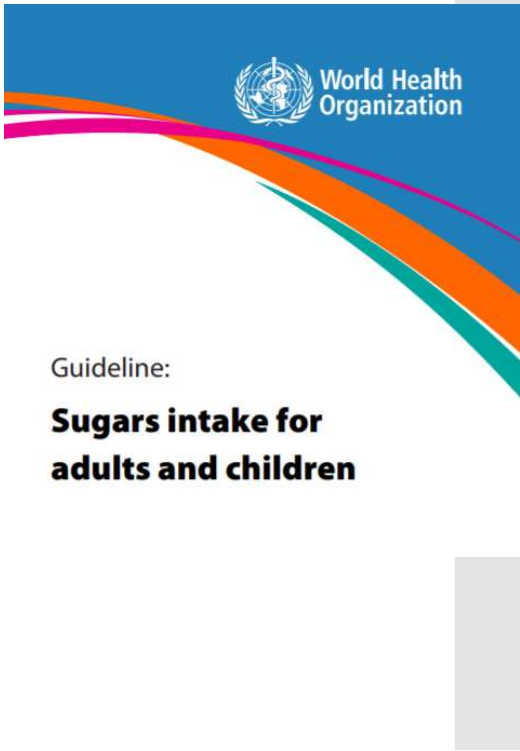


The common risk factor approach – SUGAR

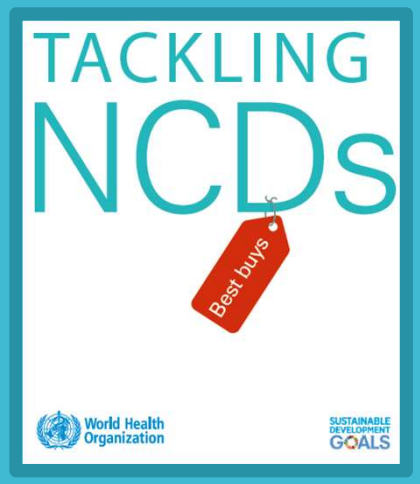
WHO recommends reduced intake of free sugars throughout the life-course (strong recommendation)

- In both adults and children, WHO recommends that intake of free sugars not exceed 10% of total energy (strong recommendation)

- WHO suggests further reduction to below 5% of total energy (conditional recommendation)

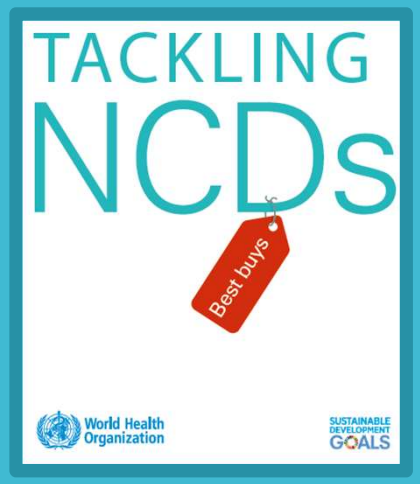


ACTION PLAN EXERCISE



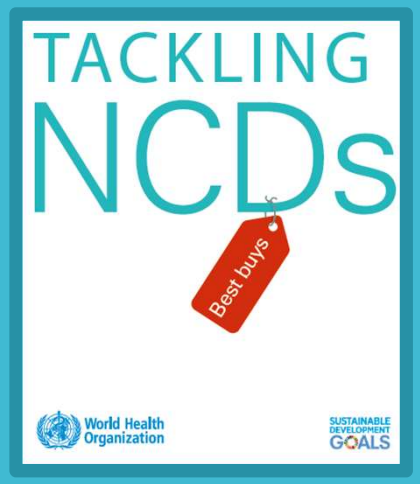
'Best buys': effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	Implement community wide public education and awareness campaign for physical activity which includes a mass media campaign combined with other community based education, motivational and environmental programmes aimed at supporting behavioural change of physical activity levels*
Effective interventions with CEA >I$100 per DALY averted in LMICs	Provide physical activity counselling and referral as part of routine primary health care services through the use of a brief intervention[14]
Other recommended interventions from WHO guidance (CEA not available)	Ensure that macro-level urban design incorporates the core elements of residential density, connected street networks that include sidewalks, easy access to a diversity of destinations and access to public transport[15] Implement whole-of-school programme that includes quality physical education, availability of adequate facilities and programs to support physical activity for all children Provide convenient and safe access to quality public open space and adequate infrastructure to support walking and cycling Implement multi-component workplace physical activity programmes Promotion of physical activity through organized sport groups and clubs, programmes and events

ACTION PLAN
TOBACCO



'Best buys': effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs, ●●●	Increase excise taxes and prices on tobacco products Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages[5] Enact and enforce comprehensive bans on tobacco advertising, promotion and sponsorship[5] Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport[5] Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second hand smoke[5]
Effective interventions with CEA >I$100 per DALY averted in LMICs, ●●	Provide cost-covered, effective and population-wide support (including brief advice, national toll-free quit line services) for tobacco cessation to all those who want to quit[6]
Other recommended interventions from WHO guidance (CEA not available) ●	Implement measures to minimize illicit trade in tobacco products Ban cross-border advertising, including using modern means of communication Provide mobile phone based tobacco cessation services for all those who want to quit.

ACTION PLAN
ALCOHOL

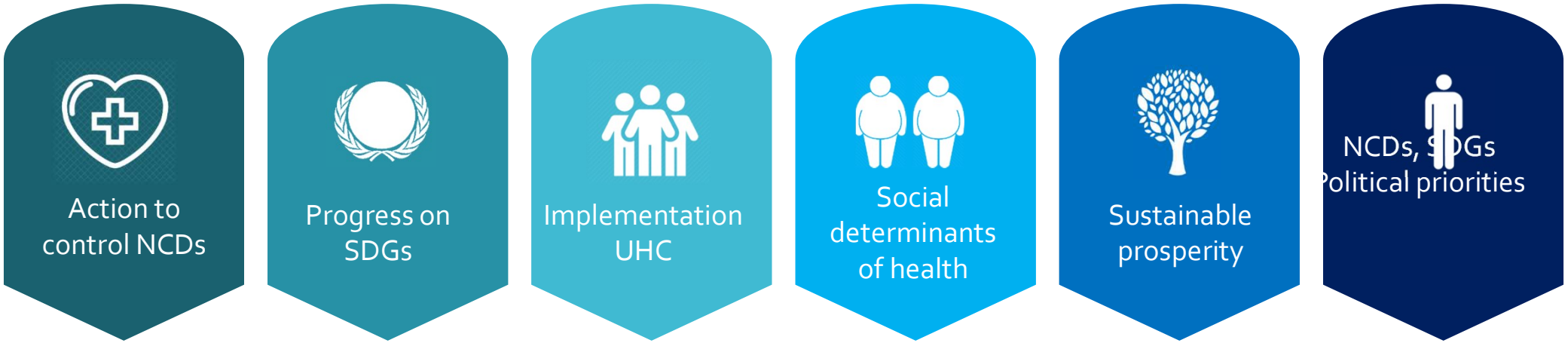


'Best buys': effective interventions with cost effectiveness analysis (CEA) ≤ I$100 per DALY averted in LMICs	Increase excise taxes on alcoholic beverages[7] Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media)[8] Enact and enforce restrictions on the physical availability of retailed alcohol (via reduced hours of sale)[9]
Effective interventions with CEA >I$100 per DALY averted in LMICs	Enact and enforce drink-driving laws and blood alcohol concentration limits via sobriety checkpoints[10] Provide brief psychosocial intervention for persons with hazardous and harmful alcohol use[11]
Other recommended interventions from WHO guidance (CEA not available)	Carry out regular reviews of prices in relation to level of inflation and income Establish minimum prices for alcohol where applicable Enact and enforce an appropriate minimum age for purchase or consumption of alcoholic beverages and reduce density of retail outlets Restrict or ban promotions of alcoholic beverages in connection with sponsorships and activities targeting young people Provide prevention, treatment and care for alcohol use disorders and comorbid conditions in health and social services Provide consumer information

THE GLOBAL GOALS
For Sustainable Development

INEQUITY

GOALS FOR GLOBAL HEALTH



iShack Video

UNIVERSAL HEALTH COVERAGE

Fragmentation, Fatma Abodoma, 2016

ORAL HEALTH

ORAL HEALTH PROVIDERS

Play a crucial role in preventing NCDs due to impact of oral diseases

Should stay connected, strategize, build capacity

INTEGRATION ORAL HEALTH-NCDS

National/global strategies

Programs for UHC

Common risk factors

Social determinants disease

Inter-professional collaborations

Research, interventions

Health/oral health in all policies

CRFA

- Integrate oral health into health
- Health behaviours account for little variation in health outcomes by SE position

- Current practices not sustainable and increases inequality isolates behaviour from their social contexts
- Health literacy has little effect lower down the social gradient
- Social determinants drive the patterns of behaviour