The role of public health

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Estonian National Health Promotion Conference

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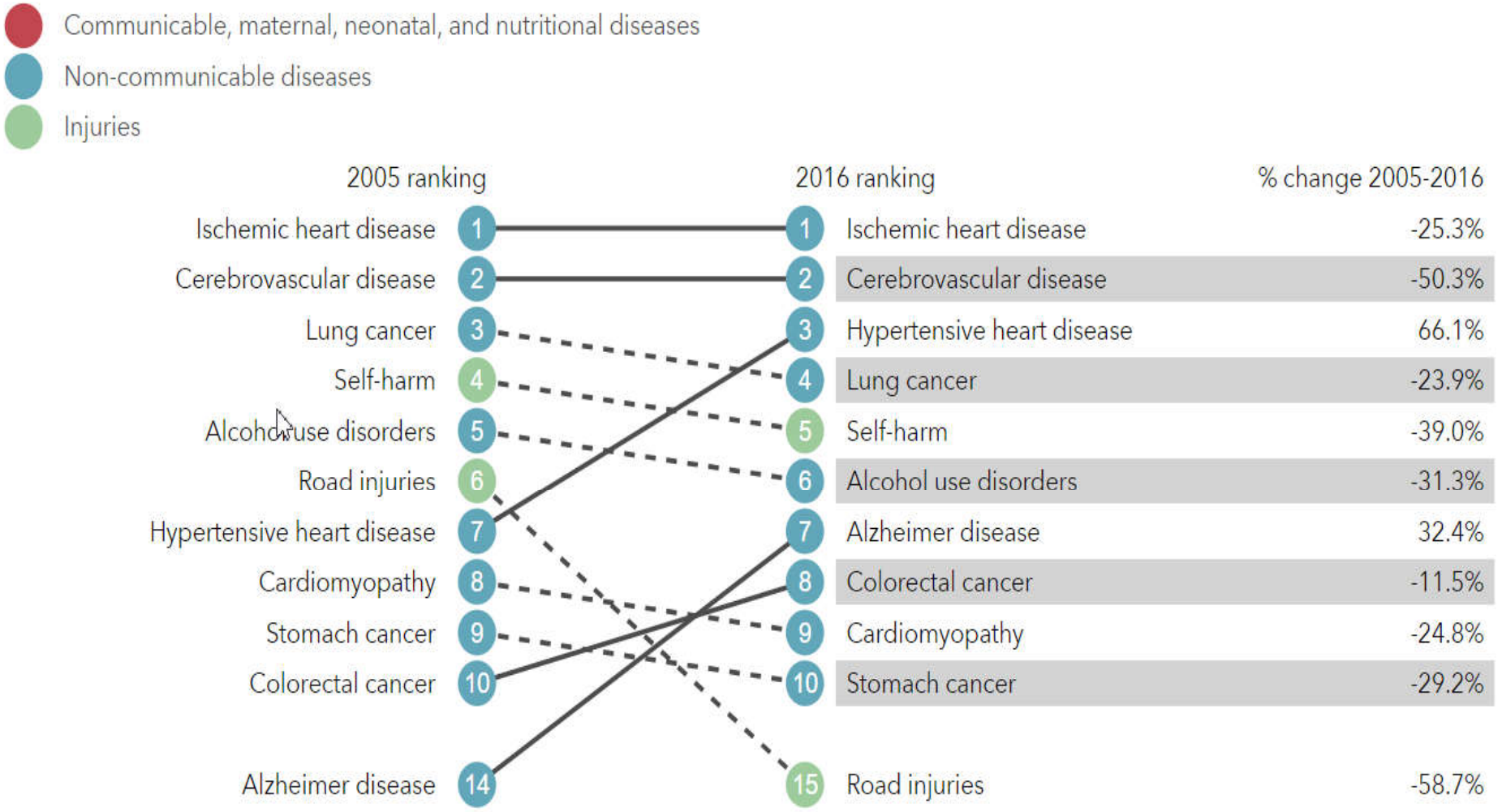
Overarching aim

- Challenges to health in Europe in the 21st century
- The remit and role of public health in Europe today
- Importance of co-ordination & collaboration with primary & secondary care for physical and mental health
- Working and facilitate actions across sectors
- Making use of economic arguments

Challenges to health in Europe in the 21st century

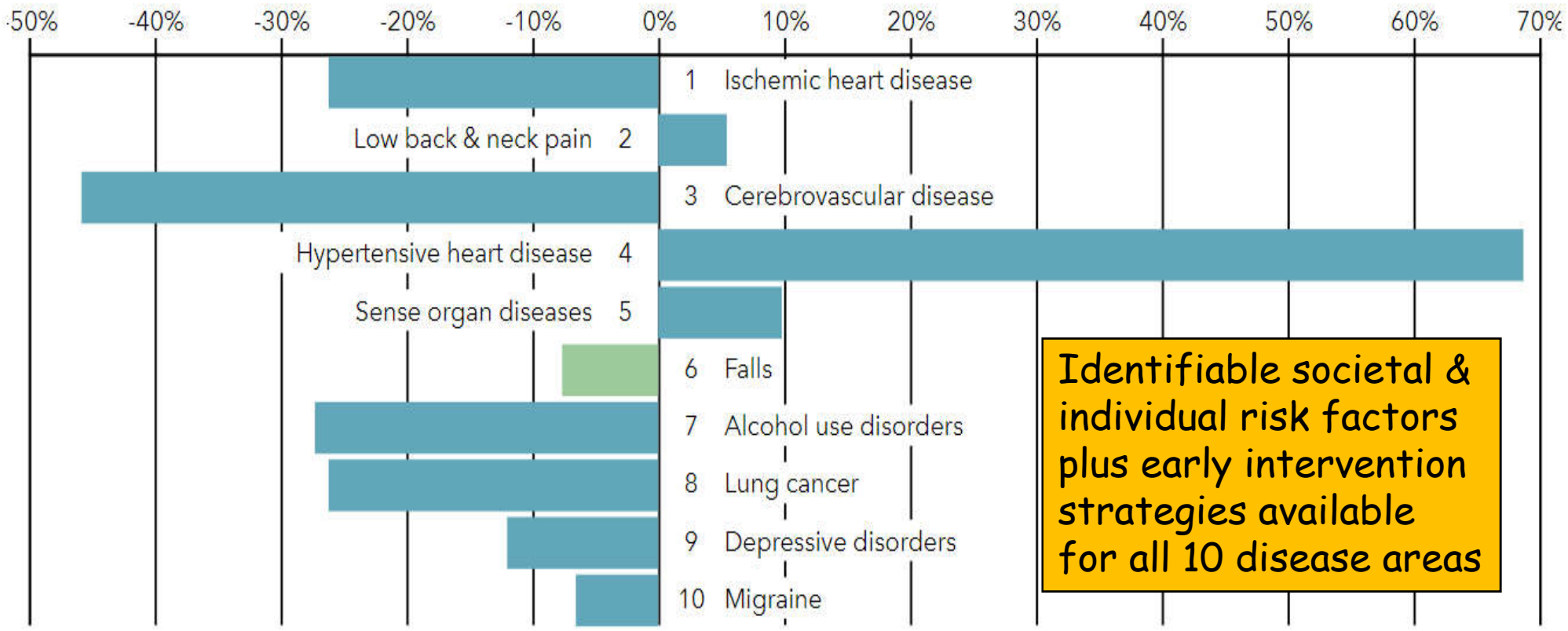
Estonia: Premature deaths



Top 10 causes of years of life lost (YLLs) in 2016 and percent change, 2005-2016, all ages, number

http://www.healthdata.org/estonia

Estonia: Change in disability adjusted life years 2005 – 2016

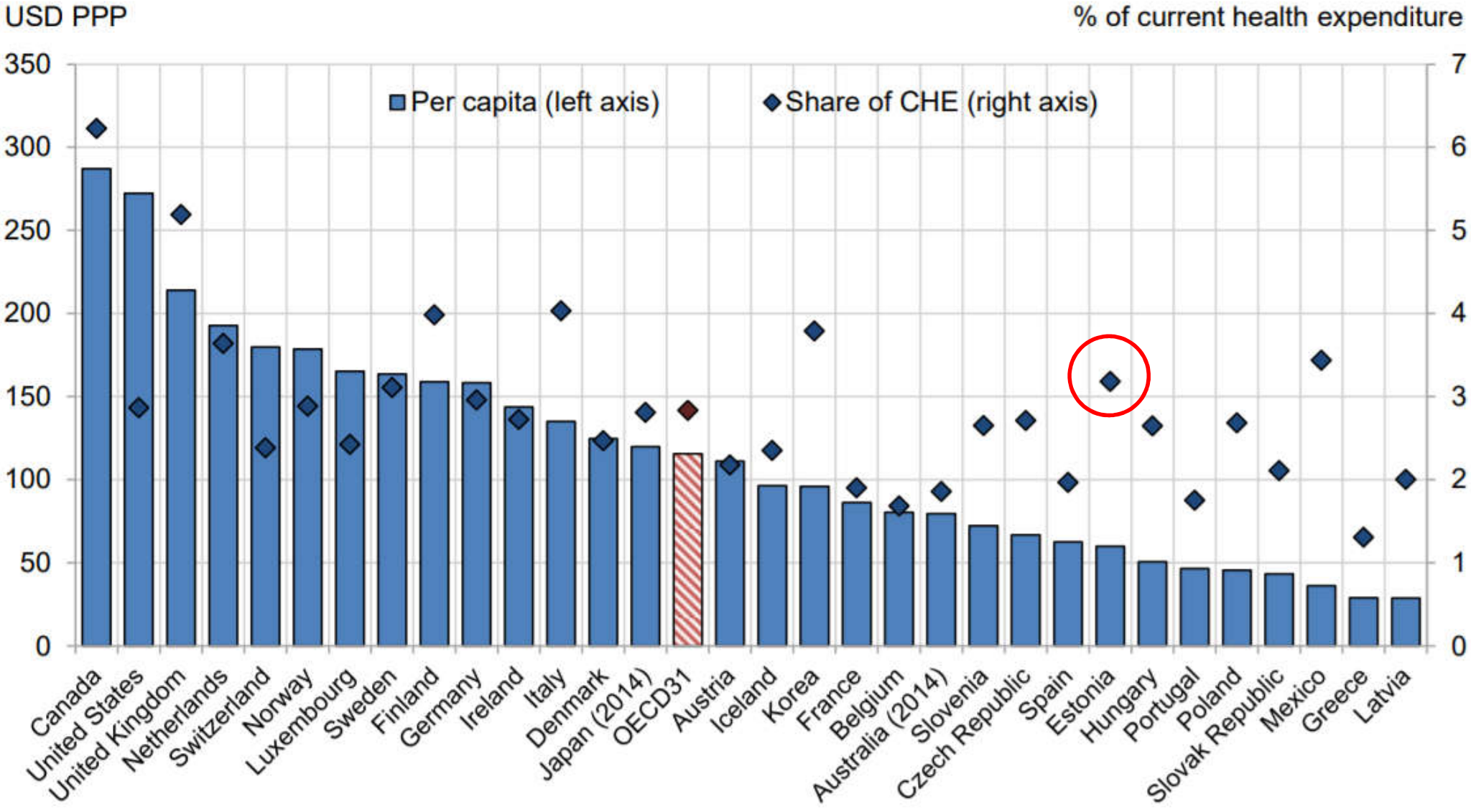


Identifiable societal & individual risk factors plus early intervention strategies available for all 10 disease areas

Top 10 causes of disability-adjusted life years (DALYs) in 2016 and percent change, 2005-2016, all ages, number

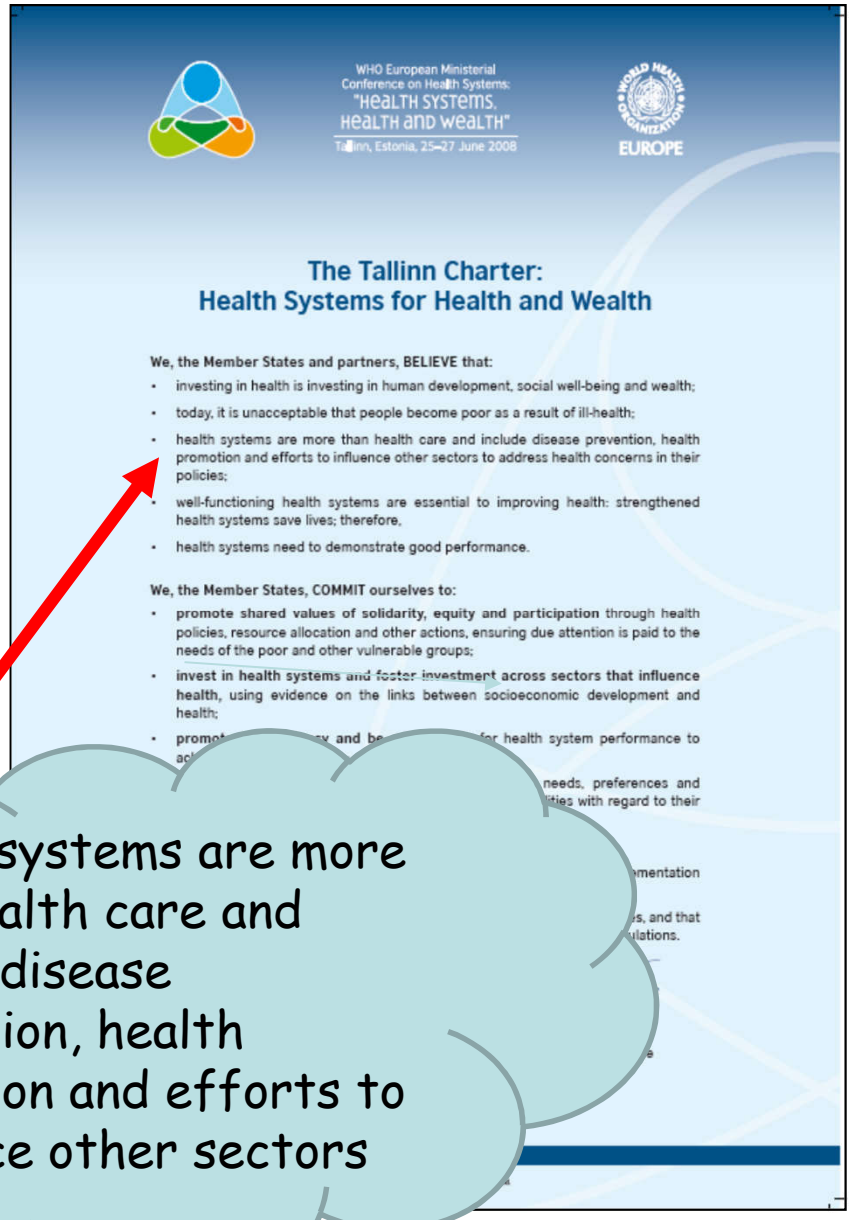
http://www.healthdata.org/estonia

Figure 3. Prevention expenditure per capita and as a share of current health expenditure, 2015



Source: OECD Health Statistics 2017.

Remit and role of public health



WHO European Ministerial Conference on Health Systems: "Health systems, health and wealth"
Tallinn, Estonia, 25–27 June 2008

EUROPE

The Tallinn Charter: Health Systems for Health and Wealth

We, the Member States and partners, BELIEVE that:

- investing in health is investing in human development, social well-being and wealth;
- today, it is unacceptable that people become poor as a result of ill-health;
- health systems are more than health care and include disease prevention, health promotion and efforts to influence other sectors to address health concerns in their policies;
- well-functioning health systems are essential to improving health: strengthened health systems save lives; therefore,
- health systems need to demonstrate good performance.

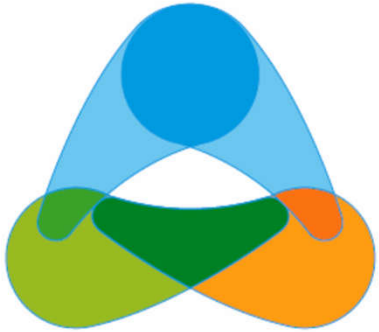
We, the Member States, COMMIT ourselves to:

- **promote shared values of solidarity, equity and participation** through health policies, resource allocation and other actions, ensuring due attention is paid to the needs of the poor and other vulnerable groups;
- **invest in health systems and foster investment across sectors that influence health**, using evidence on the links between socioeconomic development and health;

Health systems are more than health care and include disease prevention, health promotion and efforts to influence other sectors

WHO European Ministerial Conference on Health Systems

Tallinn, Estonia, 25-27 June 2008



"Reorientation towards better-performing health systems with greater focus on primary care and public health"

Strengthening coverage for "quality and cost effective health services including prevention and health promotion"

"Improving cooperation with key stakeholders within and outside the health system to enact evidence based public health interventions"

Many potential actions

Actions mainly delivered within health system; public, primary and specialist services, as well as social and long-term care. Focused mainly on primary and secondary disease prevention, e.g. screening, immunization, health counselling **(Table 1)**

Individual physical and psychological make up: prenatal environment, genetics, gender, age, life course, intergenerational influences

Underlying determinants including:

- Environmental factors (e.g. school, work, urban design, location, air quality, home insulation)
- Education status
- Socio-economic factors (incl. poverty, income inequalities, migrant status)
- Cultural values
- Social cohesion
- Knowledge / beliefs

Behavioural risk factors including:

- Tobacco smoking
- Hazardous drinking
- Physical inactivity
- Unhealthy diets
- Substance abuse / addictive behaviours (e.g. gambling)
- Other risky behaviours (e.g. sexual behaviour, sun exposure)

Biomedical risk factors including:

- Birth weight
- Body mass index
- Blood cholesterol
- Blood pressure
- Abnormal blood lipids
- Immune status

Disease and injury burden including:

- Non-communicable physical and mental diseases
- Communicable diseases
- Intentional injuries
- Accidental injuries

- **Health care costs**
- **Human costs** (shorter life expectancy, premature mortality)
- **Wider societal costs** (e.g. lost productivity in the workforce, lost human capital acquisition while at school), incl. impacts going **beyond the individual** (e.g. on family) and **intergenerational** impacts

Individual physical and psychological make up: prenatal environment, genetics, gender, age, life course, intergenerational influences

Actions often delivered in partnership with other sectors / actors; mainly actions targeted at health promotion by influencing behaviour, e.g. taxes, regulations, health information and literacy campaigns, psychological nudges **(Table 1)**

Direction of travel in Europe

- Plans / strategies increasingly focused on addressing some risk factors to health: physical activity, diet, addictive behaviours, environmental factors
- Some incentives for primary care to focus more on prevention / promotion
- More interest in facilitating intersectoral working
- Modelling of economic return on investment: one element of better communication

Recent developments

New or forthcoming taxes on sugary drinks: Belgium, Estonia, Finland, France, Hungary, Ireland, Latvia, Malta, Norway & UK. Iceland & Denmark removed taxes

Little change on taxes on unhealthy foods, but use of regulations to restrict access in some settings e.g. Spanish schools

Minimum Unit Pricing for Alcohol in Scotland

Some use of psychological interventions to influence choice

https://www.socialstyrelsen.se/Lists/Artikelkatalog/Attachments/20816/2018-2-4.pdf

World Health Organization
REGIONAL OFFICE FOR Europe

PRE-FINAL DRAFT FOR CONSULTATION

Health systems respond to noncommunicable diseases: time for ambition

Edited by
Melitta Jakab
Jill Farrington
Frederiek Mantingh
Liesbeth Borgermans

Focus on non-communicable disease (including poor mental health) including:

Regional trends

Evidence on effective actions

Reforming system financing and organisations

Analysis on public health transformation

Promoting intersectoral actions

…..and many others……

Forthcoming WHO – Euro, September 2018

Strengthening capacity

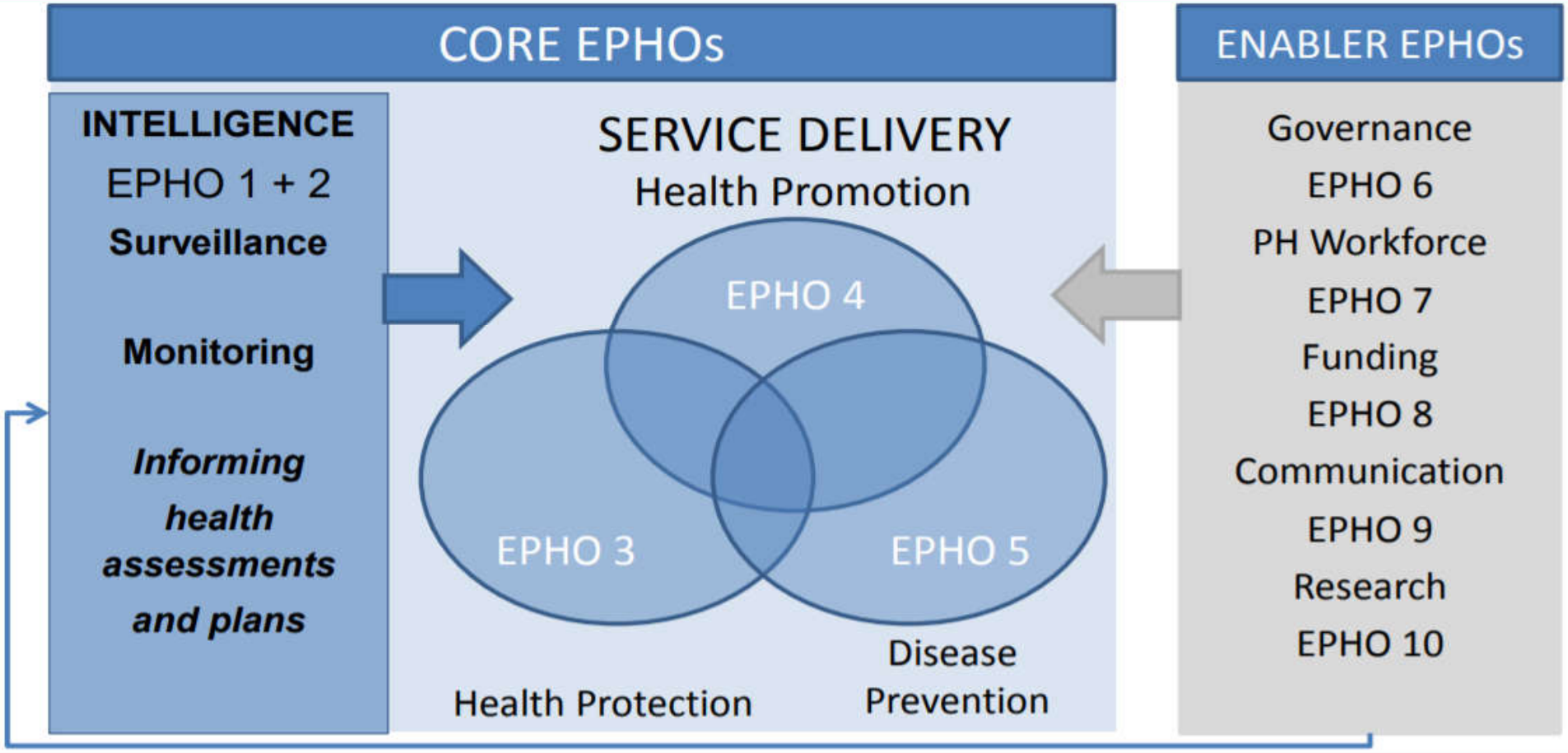
- Public health staff require 'new public health' skills to tackle NCDs – revise curriculum of degree programmes
- Health care professionals need strengthened skills to enable work on prevention/promotion, work with communities and tackle health inequity
- Effective workforce planning for public health professionals has a focus on the delivery of policies tackling NCDs, and integrate this work with overall planning of human resources for health

O'Dowd et al in Jakab et al 2018

Co-ordination with primary & secondary care

The ten Essential Public Health Operations (EPHOs) - for strengthening Public Health service delivery

VISION: Sustainable Health & Well-Being

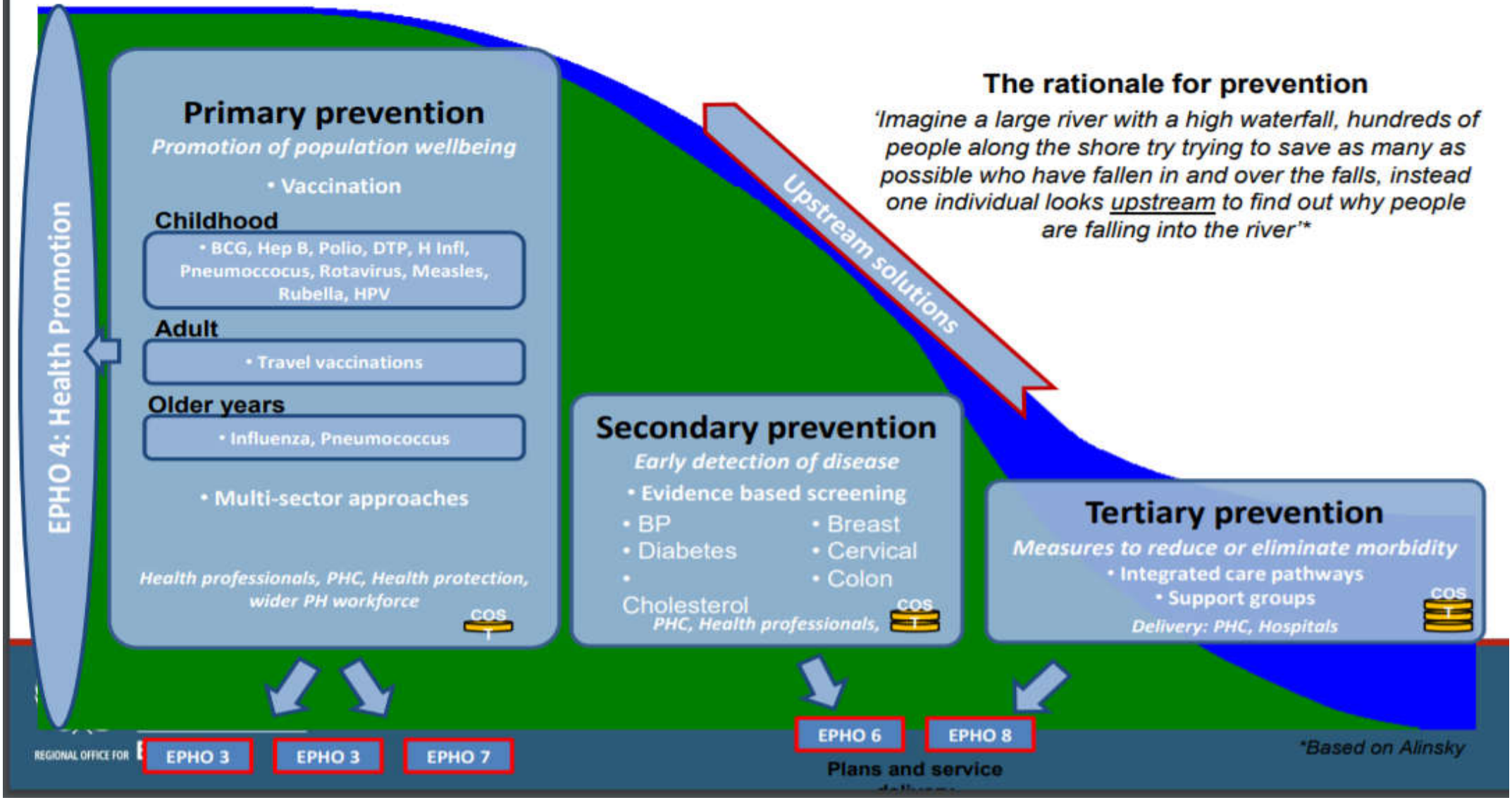


World Health Organization
REGIONAL OFFICE FOR Europe

EPHO 5: Disease Prevention

Disease prevention, including early detection of illness

This operation seeks to prevent disease through three levels of prevention: primary, secondary and tertiary. These range from improving the overall health of the population (primary prevention) to improving treatment and recovery (tertiary prevention)

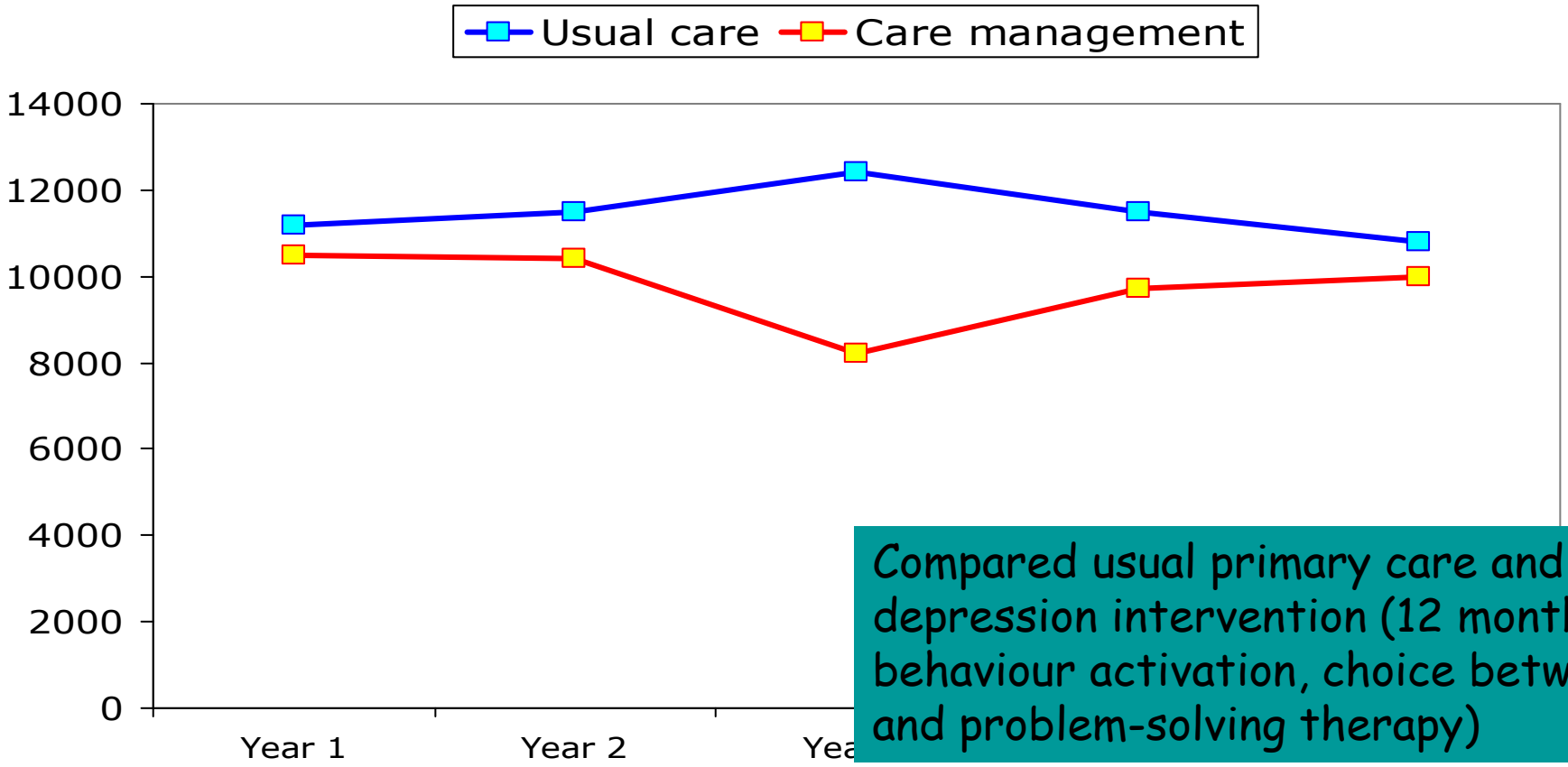


Coordination with primary care

- Good healthcare and strong primary care are associated with improvements in Healthy Life Expectancy (HLE)
- Primary care is central to delivering UHC and prevention and promotion must be central elements of this offer
- In many countries primary care lacks the vital links with health promotion and disease prevention activity
- Good primary care brings professionals and communities together, as in Kyrgyzstan, where such a collaborative is tackling hypertension
- Strong primary care must have a strong public health orientation for both planning and delivery, setting shared targets at the level of the population
- Integrated systems providing primary care and public health need strong governance at all levels

O'Dowd et al in Jakab et al 2018

Collaborative care to manage depression in people with diabetes in primary care: costs over 5 years

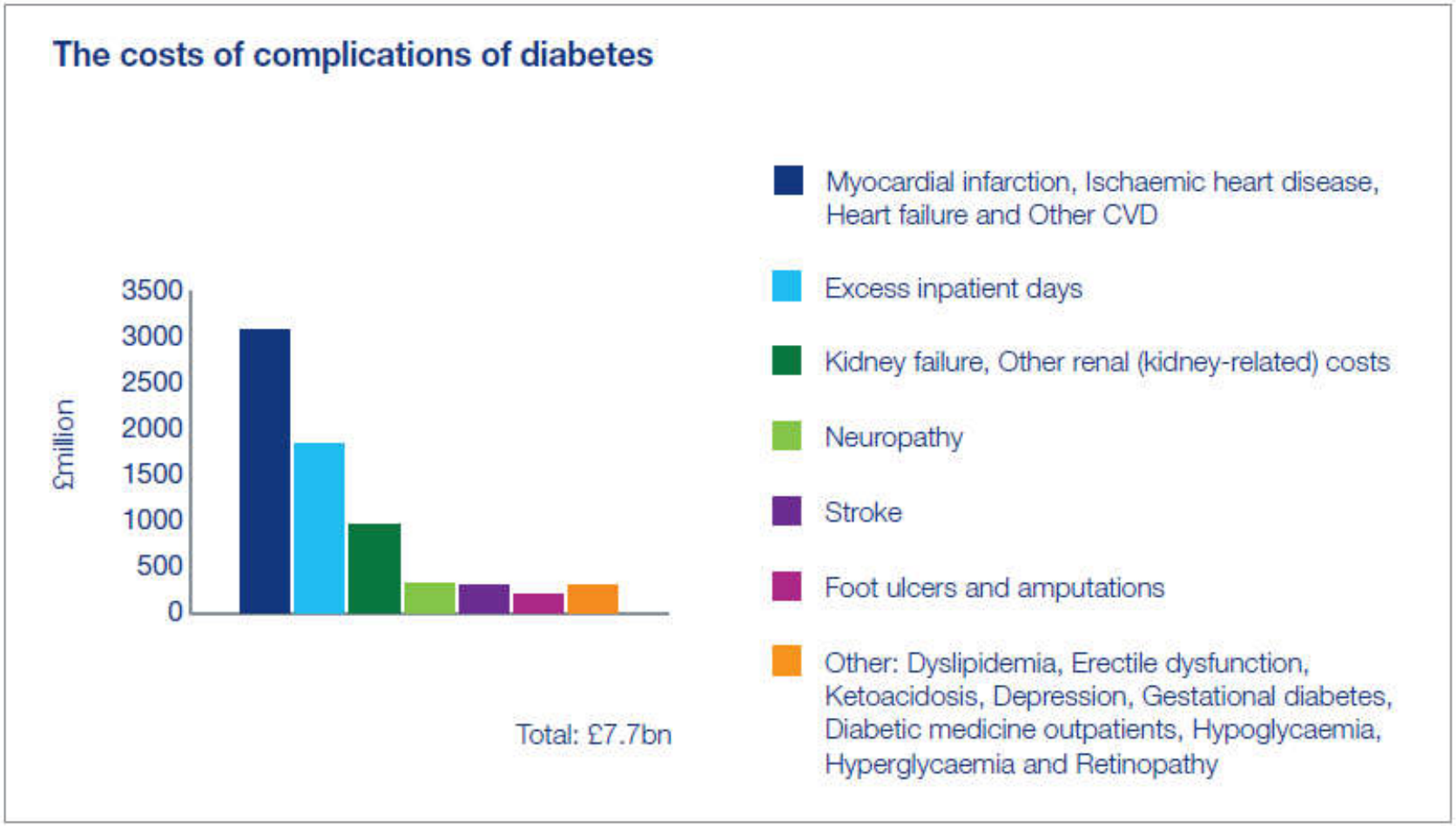


Compared usual primary care and a nurse depression intervention (12 months - education, behaviour activation, choice between medication and problem-solving therapy)

Katon et al, *Diabetes Care*, 2008

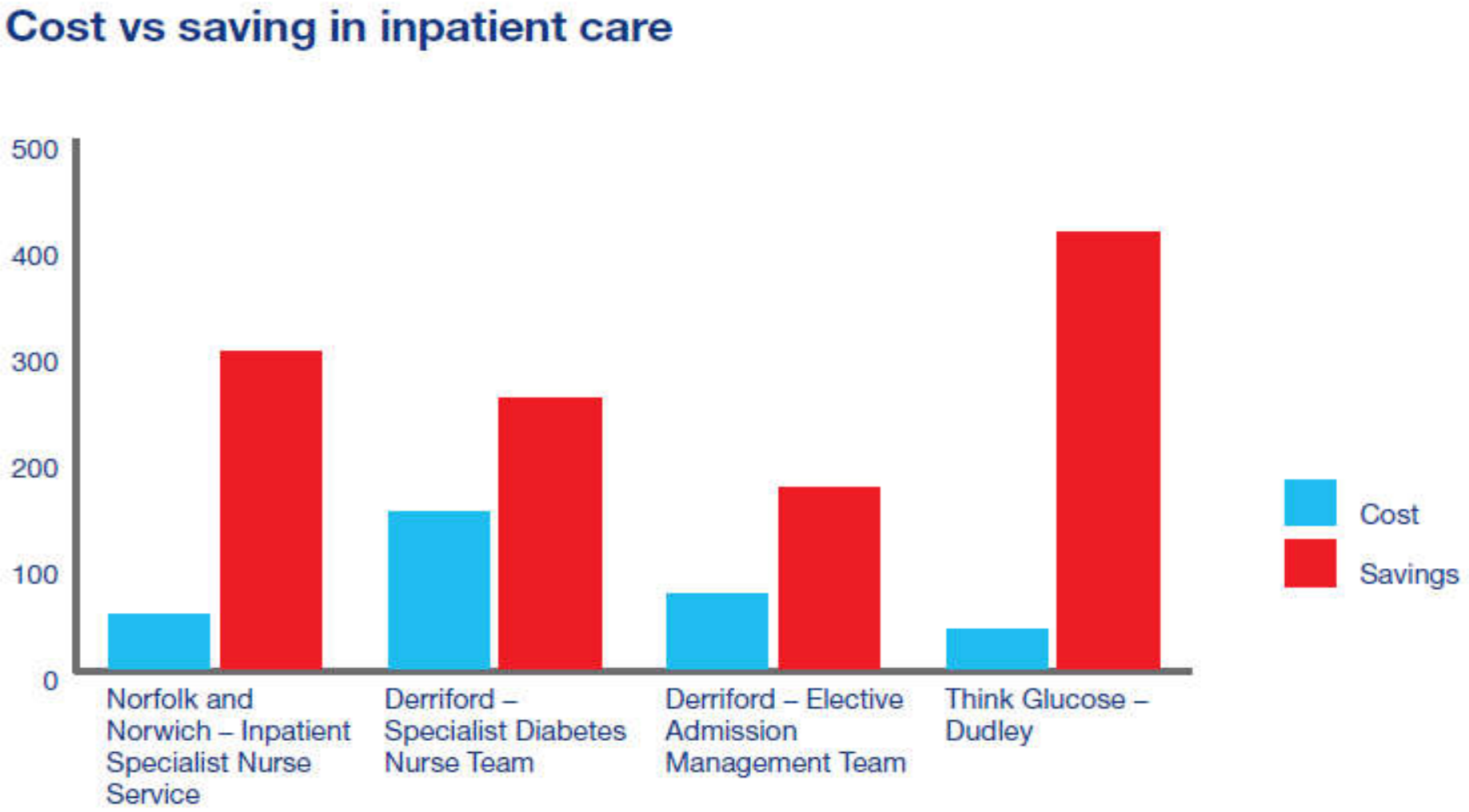
Complications account for 75%+ of diabetes costs

The largest costs for complications are excess inpatient days, cardiovascular disease and damaged kidneys and nerves.



Hex et al Diabetic Medicine 2012

Investing in specialist diabetes inpatient nurses



Diabetes UK, 2014

Strengthening partnership working within and outside health system

Facilitating intersectoral activity

- Need for evidence-based investment in cost effective actions delivered outside of health system
- Public health professionals central role to play to stimulate collaboration and partnership working
- E.g. working with ministries of finance, education, transport, housing, justice and local government

Facilitating intersectoral activity

Challenge	Response
Limited awareness of benefits to health system of intersectoral actions	Highlight evidence-based short, mid & long-term health system benefits that arise from actions: e.g. **reductions in health & long-term care use**.
Limited incentives for non-health sector to deliver / invest in health actions	Highlight sector-specific benefits of action using their language – **win-wins can help leverage funds & support**

Speaking the right language

- Make arguments using right language:
- For secondary care: avoidance of surgery, expensive treatments and complications of treatment
- For primary care: reducing some workload on primary care teams by preventing poor health, reducing multi-morbidity
- For workplaces: creativity, innovation, absenteeism, reduction in work accidents, performance at work
- For school based programmes any impacts on education outcomes: truancy rates, exam performance, classroom disruption, teacher absenteeism rates, reputation

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The effects of alcohol use on acade

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JOURNAL OF SCHOOL HEALTH

American School Health Association

RESEARCH ARTICLE

Effects of Early Adolescent Alcohol Use on Mid-Adolescent School Performance and Connection: A Longitudinal Study of Students in Victoria, Australia and Washington State, United States

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ABSTRACT

BACKGROUND: This article examines the effect of early adolescent alcohol use on mid-adolescent school suspension, truancy, commitment, and academic failure in Washington State, United States, and Victoria, Australia. Also of interest was whether associations remain after statistically controlling for other factors known to predict school outcomes.

METHODS: State-representative student samples were surveyed in 2002 (grade 7; N = 1858) and followed up annually to 2004 (grade 9) in both sites. Students completed a modified version of the Communities That Care survey to report alcohol use, school outcomes, and risk and protective factors. Response rates were above 74% and retention rates exceeded 98% in both places.

RESULTS: Controlling for grade 7 risk factors, grade 7 current alcohol use, and heavy episodic drinking were associated with grade 8 school suspension. Grade 7 current and frequent alcohol use and heavy episodic drinking were linked to grade 9 truancy. In fully adjusted analyses, associations between early alcohol use and academic failure and low school commitment did not remain.

CONCLUSIONS: Although alcohol use is one factor influencing school performance and connection, there are other risk factors that need to be targeted to improve school outcomes.

Keywords: alcohol use; school performance; school connection; longitudinal study; adolescence.

Citation: Hemphill SA, Heerde JA, Scholes-Balog KE, Herrenkohl TI, Toumbourou JW, Catalano RF Jr. Effects of early adolescent alcohol use on mid-adolescent school performance and connection: a longitudinal study of students in Victoria, Australia and Washington State, United States. J Sch Health. 2014; 84: 706-715.

Facilitating intersectoral activity

Challenge	Response
Limited awareness of benefits to health system of intrasectoral actions	Highlight evidence-based short, mid & long-term health system benefits that arise from actions: e.g. **reductions in health & long-term care use**.
Limited incentives for non-health sector to deliver / invest in health actions	Highlight sector-specific benefits of action using their language – **win-wins can help leverage funds & support**
Fragmented funding / responsibility for action	Consider **a range of legal, regulatory and financial mechanisms** to help align incentives

Financing mechanisms

Approach	Examples
Dedicated funds from health budgets specifically for intersectoral activities. Typically time-limited, often small in scale.	**Finland:** local health promotion funding programmes conditional on intersectoral partnerships. **Canada:** Competitive conditional intersectoral grants awarded by Public Health Agency; if effective can be scaled up.
Securely funded independent body or agency; funds from stable sources, earmarked taxes or levies. Determine priorities for intersectoral actions.	**Switzerland:** Health Promotion Switzerland funded through surcharge on insurance premiums. **Lithuania:** State Public Health Promotion Fund, funded through share of alcohol excise duties.
Regulatory and legal mechanisms to facilitate budget sharing and contracts between actors in different sectors.	**UK:** Work and Health Programme. Legislation allows resources to be pooled from Greater Manchester Combined Authority & Dept of Work and Pensions to address health & employment issues of long term unemployed.

Making use of return on investment

Highlighting ROI

- Briefly highlight role of return on investment as a mechanism for influencing policy decisions

Making use of Return on Investment Tools

- Public Health England commissioned ROI Tools. Bring together best available evidence on costs, savings, and health benefits for a range of interventions. So far ten models have been published looking at:

Colorectal cancer	**Diabetes**	**End of life care**	**Weight management**
Oral Health in pre school children	**Mental heath promotion**	**Musculoskeletal conditions**	**Movement into employment**
Falls prevention		**Best start in life**	

- Each model calculates return on investment for different interventions to selected different sectors over different timeframes. For example the Falls prevention model reports a return on investment to health and social care services of **$3.17 for every $1** invested in home assessment and modification services, while in the mental health promotion tool investment in debt advice and management services has a return on investment of **$2.60 for every $1** invested to health, legal services and employers

Press release

PHE highlights 8 ways for local areas to prevent mental ill health

New tool identifies the most cost-effective programmes to help prevent mental ill health in local communities.

Published 30 August 2017
From: Public Health England

Public Health England

Commissioning Cost-Effective Services for Promotion of Mental Health and Wellbeing and Prevention of Mental Ill-Health

LSE PSSRU

ROI: Baseline Scenario Local Area

ROI: Tackling Loneliness and Social Isolation in Older Adults

LSE PSSRU
Personal Social Services Research Unit

Return to Loneliness and Social Isolation Intervention Contents Page
Return to Intervention Choice Menu

Area Selected:
Bedford

Total Net Costs / Payoffs (Default values 2015 prices)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost / Saving
Total cost intervention	£50,268	£0	£0	£0	£0	£50,268
Signposting Service	£15,897	£0	£0	£0	£0	£15,897
Group Activities	£34,372	£0	£0	£0	£0	£34,372
GP Visits	£0	-£11,377	-£10,791	-£10,259	-£9,753	-£42,180
Depression Treatment	£0	-£1,427	-£1,357	-£1,293	-£1,232	-£5,309
Self-Harm Treatment	£0	-£97	-£92	-£88	-£84	-£362
CHD Treatment	£0	-£3	-£2	-£2	-£2	-£10
Stroke Treatment	£0	-£77	-£73	-£69	-£65	-£285
Dementia	£0	-£4,992	-£4,728	-£4,488	-£4,261	-£18,468
Hospital admissions	£0	-£40,879	-£38,899	-£37,102	-£35,387	-£152,268
A&E Admissions	£0	-£1,426	-£1,351	-£1,283	-£1,218	-£5,279
Additional Volunteering through Signposting	-£3,287	-£3,325	-£3,177	-£3,035	-£2,900	-£15,725
Total cost consequences (saving if negative value)	-£3,287	-£63,603	-£60,470	-£57,620	-£54,904	-£239,885
Total net costs (saving if negative value)	£46,981	-£63,603	-£60,470	-£57,620	-£54,904	-£189,616
Cumulative Return per Pound Invested	£0.07	£1.33	£2.53	£3.68	£4.77	£4.77
Loneliness Free Years Gained	0	98	95	93	90	376

To summarise

- Public health needs to be at core of 21st century health strategy
- Vital role to play working with primary and specialist health care
- Vital role to play working intersectoral
- Make innovative arguments to strengthen case