



JAHEE

JOINT ACTION HEALTH EQUITY EUROPE!

Policy response in Italy Challenges for research

Giuseppe Costa, University of Torino and Piedmont Region
on behalf of the Italian coordinating team
ISS, AgeNas, INMP, Piedmont Region, Ministry of Health



Co-funded by the Health Program
of the European Union - CHAFEA

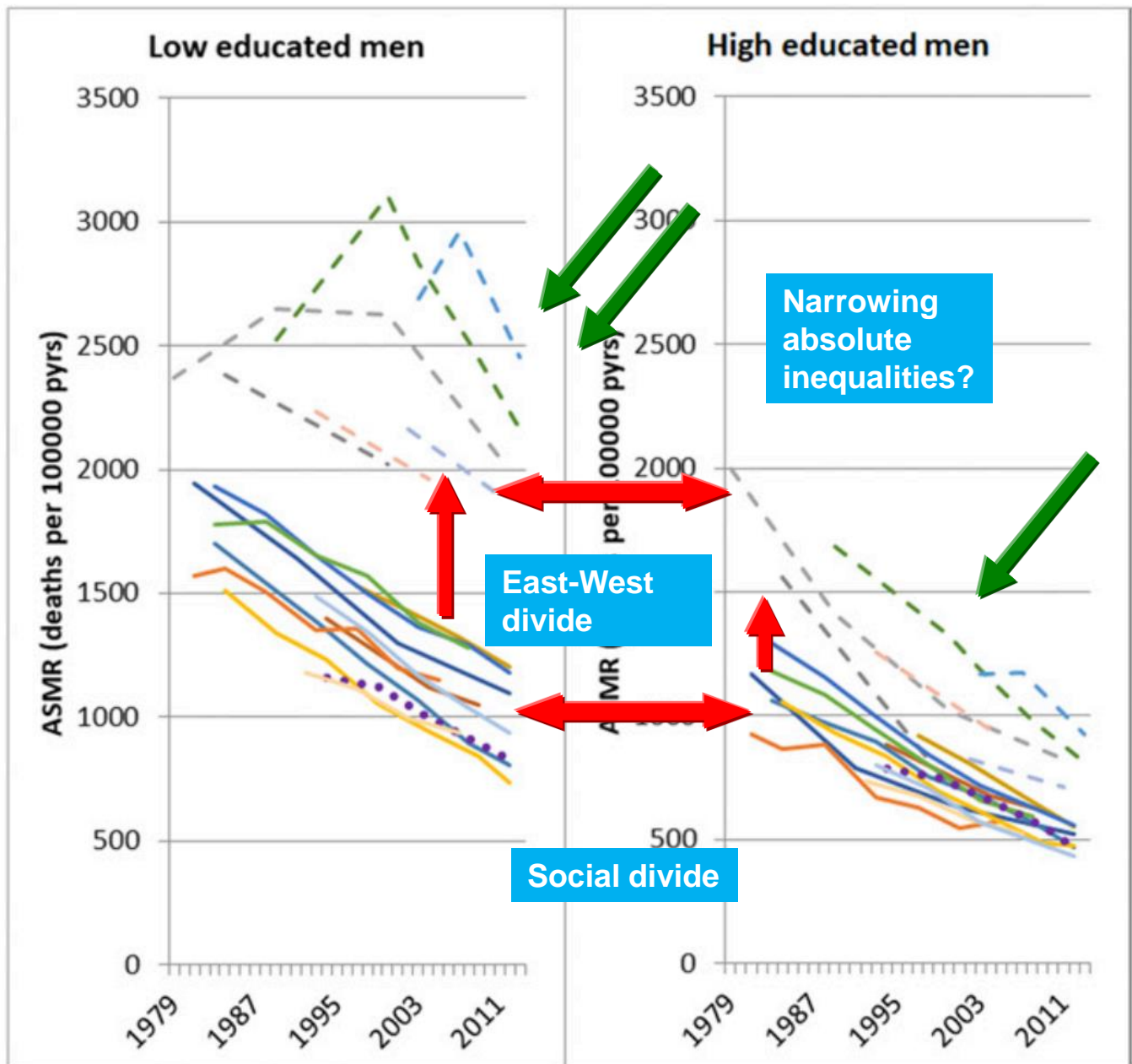
Health Equity Italy!

- **JAHEE: where we are (Europe)**
- **Policy response in Italy (under the commitment of JAHEE)**
- **Challenges for research (and ISS?)**
- **Contribution to the SDGs agenda (ASVIS)**

Health Equity Italy!

- **JAHEE: where we are (Europe)**
- **Policy response in Italy (under the commitment of JAHEE)**
- **Challenges for research (and ISS?)**
- **Contribution to the SDGs agenda (ASVIS)**

EDUCATIONAL INEQUALITIES IN MORTALITY ACROSS 17 EU POPULATIONS, MEN 1980-2014 (Mackenbach, Pnas 2018)



Social inequalities in health are still there

Heterogeneity in policy response

JAHEE three steps

It can be
done!

ACTIONS
to be implemented

How far
we are
from what
should be
done and
why?

CA

Courts

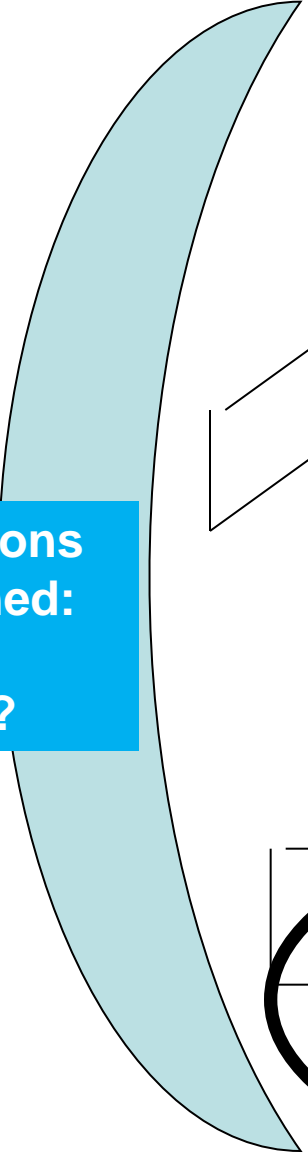
CA

PFA Policy framework for action
"TO BE"

What
should be
done?

We are here:
DONE!

Lessons
learned:
what
next?



Five policy domains

WP5 monitoring

WP6 healthy living environments

WP7 immigration

WP8 health systems

WP9 governance/HiAP

Health Equity Italy!

- JAHEE: where we are (Europe)
- **Policy response in Italy (under the commitment of JAHEE)**
- Challenges for research (and ISS?)
- Contribution to the SDGs agenda (ASVIS)

Policy response in Italy under the umbrella of JAHEE?

**WP5 monitoring: INTEGRATING CENSUS COVARIATES
INTO THE INDIVIDUAL RECORD OF THE NHS
POPULATION REGISTRY**

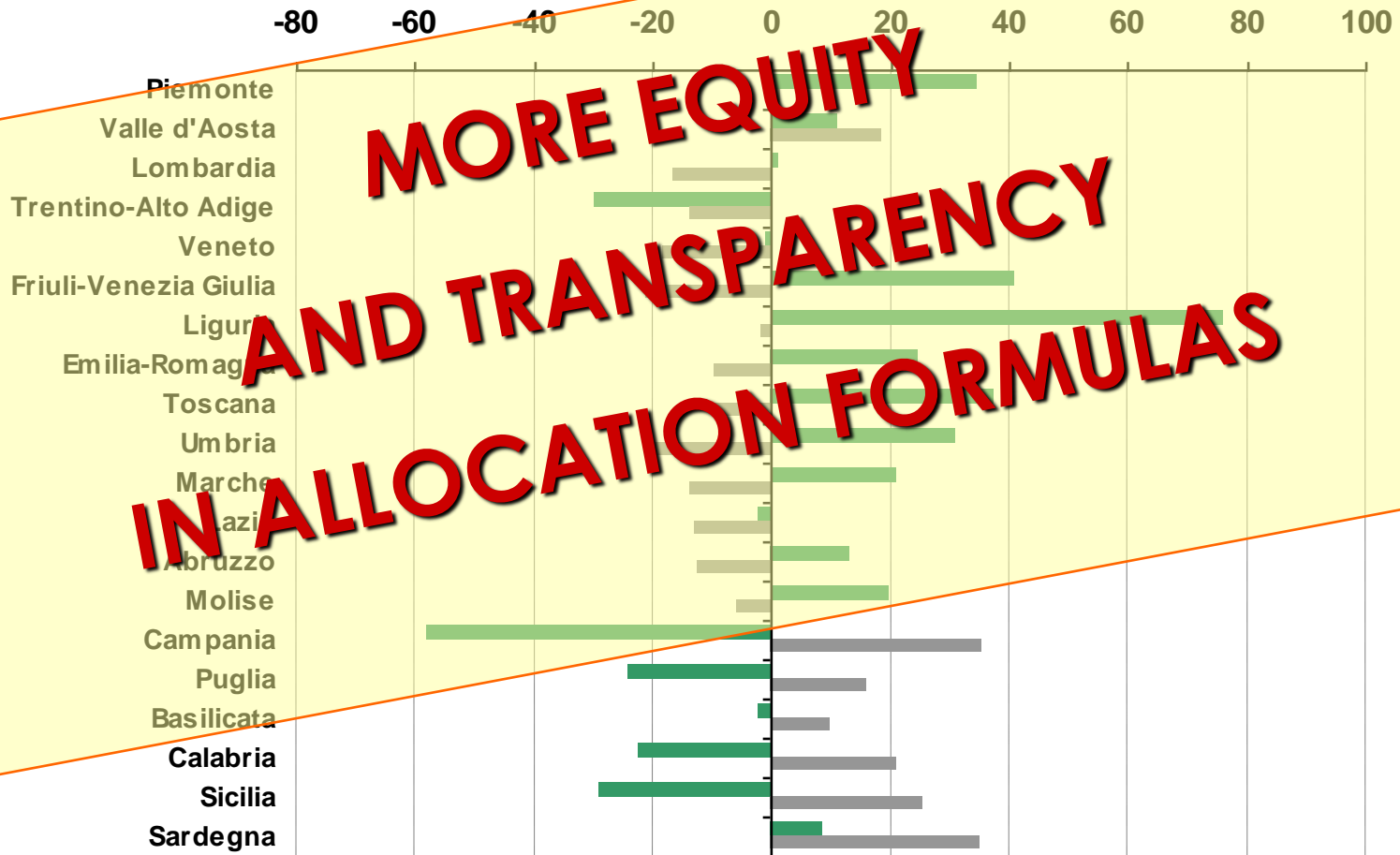
WP6 healthy living environments

WP7 immigration

WP8 health systems

WP9 governance/HiAP

Simulation of regional variation in NHS capitation formula 2015 (Euros), according to the adjustment of the impact of age (green) and deprivation (grey) on the need of each level of care (hospitalization, outpatient care, medication)



ETA DISP. RISORSE

Policy response in Italy under the umbrella of JAHEE?

WP5 monitoring: **INTEGRATING CENSUS COVARIATES INTO THE INDIVIDUAL RECORD OF THE NHS POPULATION REGISTRY**

WP6 healthy living environments: **HEALTH EQUITY AUDIT IN THE NEW NATIONAL PREVENTION PLAN PNP**

WP7 immigration

WP8 health systems

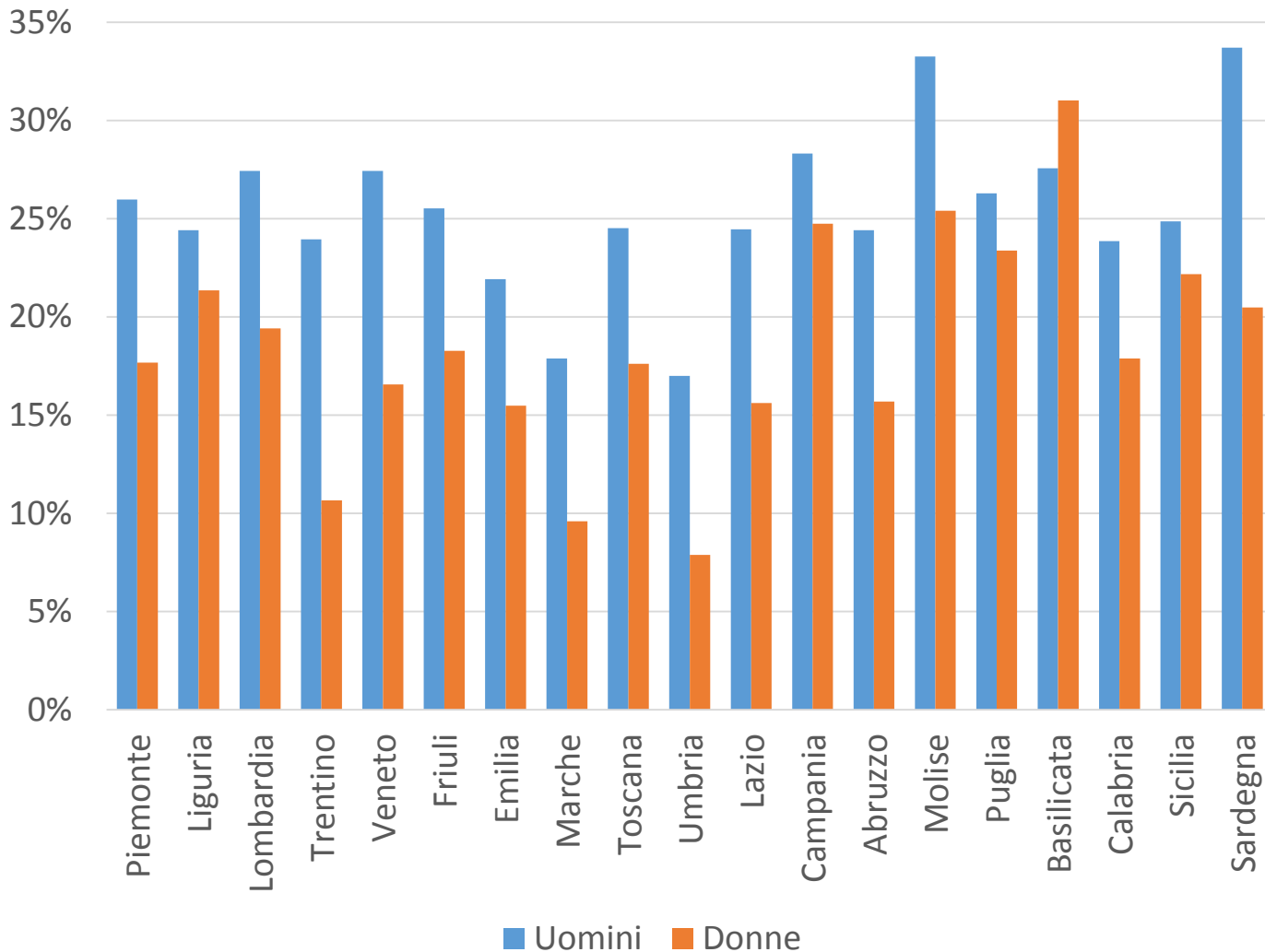
WP9 governance/HiAP

POTENTIAL MAXIMUM IMPACT OF LEVELLING EXPOSURE TO RISK FACTORS TO THE ONE OF THE MORE EDUCATED?

AVOIDABLE DEATH PER YEAR

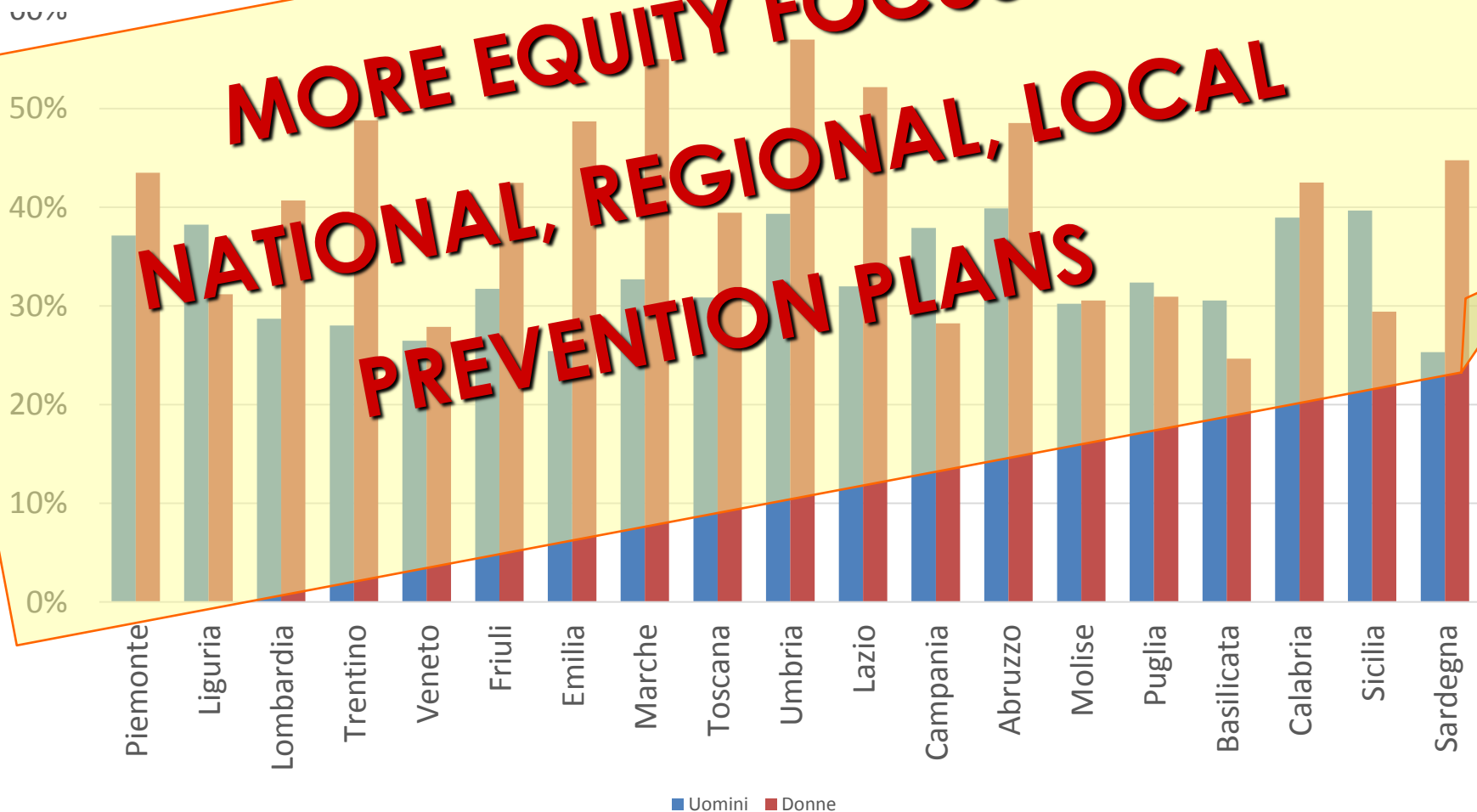
UOMINI	Fumo	Alcol	BMI	AF	F&V	DONNE	Fumo	Alcol	BMI	AF	F&V
Piemonte	270	27	143	337	15	Piemonte	24	8	123	206	3
Liguria	146	9	34	85	14	Liguria	8	9	43	68	6
Lombardia	256	51	299	590	51	Lombardia	49	16	241	405	45
Trentino	29	16	17	46	4	Trentino	3	2	17	20	4
Veneto	76	35	146	307	16	Veneto	3	20	98	89	6
Friuli	52	16	43	85	13	Friuli	22	13	35	44	5
Emilia	138	15	29	189	22	Emilia	8	6	121	179	10
Marche	17	23	32	77	8	Marche	3	0	48	45	3
Toscana	154	43	102	170	14	Toscana	7	0	104	128	13
Umbria	23	26	18	46	4	Umbria	2	4	24	27	2
Lazio	237	100	64	350	57	Lazio	16	5	145	279	38
Campania	491	102	165	388	56	Campania	14	7	179	217	21
Abruzzo	71	21	29	99	18	Abruzzo	4	1	43	39	3
Molise	13	6	8	27	3	Molise	0	1	11	9	1
Puglia	192	82	56	240	18	Puglia	0	9	110	141	13
Basilicata	17	24	11	45	3	Basilicata	0	2	13	25	3
Calabria	88	56	57	141	13	Calabria	3	4	56	71	13
Sicilia	245	58	88	433	40	Sicilia	3	9	163	158	12
Sardegna	65	56	28	151	29	Sardegna	14	4	48	79	9

% MORTALITY ATTRIBUTABLE TO LOW EDUCATION



CONTRIBUTION OF THE EDUCATIONAL INEQUALITIES IN THE THREE MAIN RISK FACTORS (SMOKING, PHYSICAL ACTIVITY, BMI) TO THE MORTALITY ATTRIBUTABLE TO

LOW EDUCATION



Policy response in Italy under the umbrella of JAHEE?

WP5 monitoring: **INTEGRATING CENSUS COVARIATES INTO THE INDIVIDUAL RECORD OF THE NHS POPULATION REGISTRY**

WP6 healthy living environments: **HEALTH EQUITY AUDIT IN THE NEW NATIONAL PREVENTION PLAN PNP**

WP7 immigration: NO COMMENT

WP8 health systems

WP9 governance/HiAP

Policy response in Italy under the umbrella of JAHEE?

WP5 monitoring: **UNA COVARIATA SOCIALE IN NSIS**

WP6 healthy living environments: **NUOVO PNP**

WP7 immigration: **NO COMMENT**

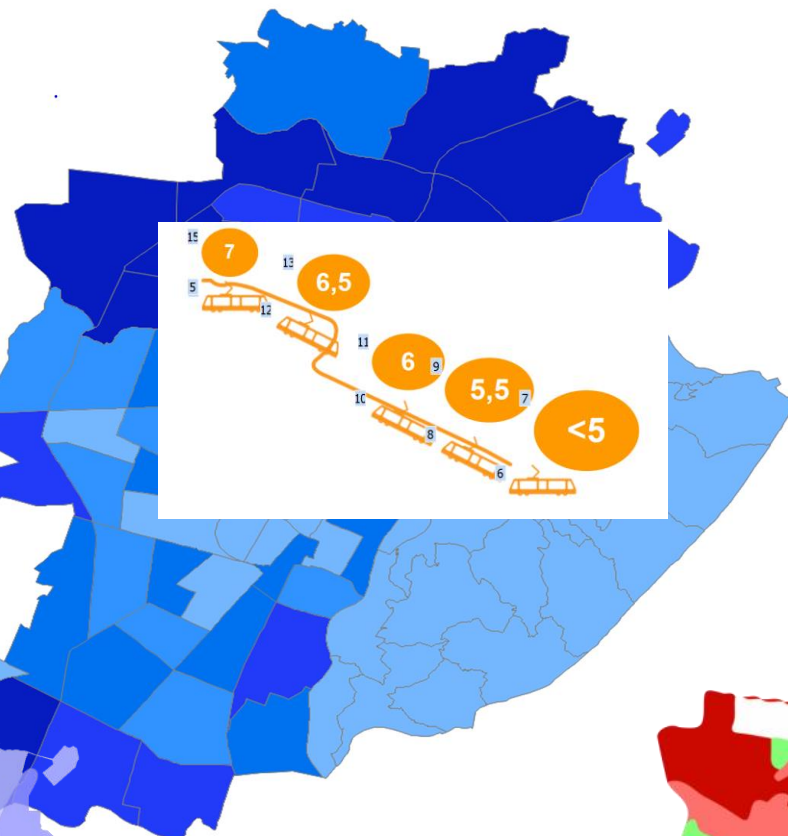
**WP8 health systems: HEALTH EQUITY AUDIT
IN THE PROCESS OF CARE AND OUTCOME
EVALUATION (CHRONIC DISEASE)**

WP9 governance/HiAP

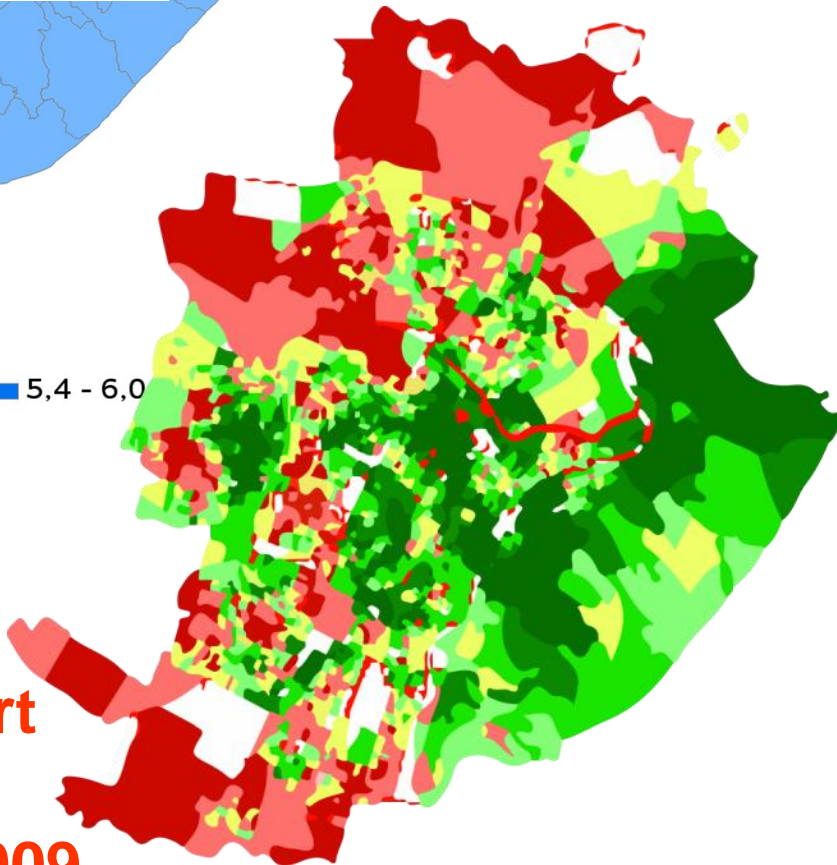
Turin case study on diabetes

Prevalence % of diabetes in 2017, age adjusted

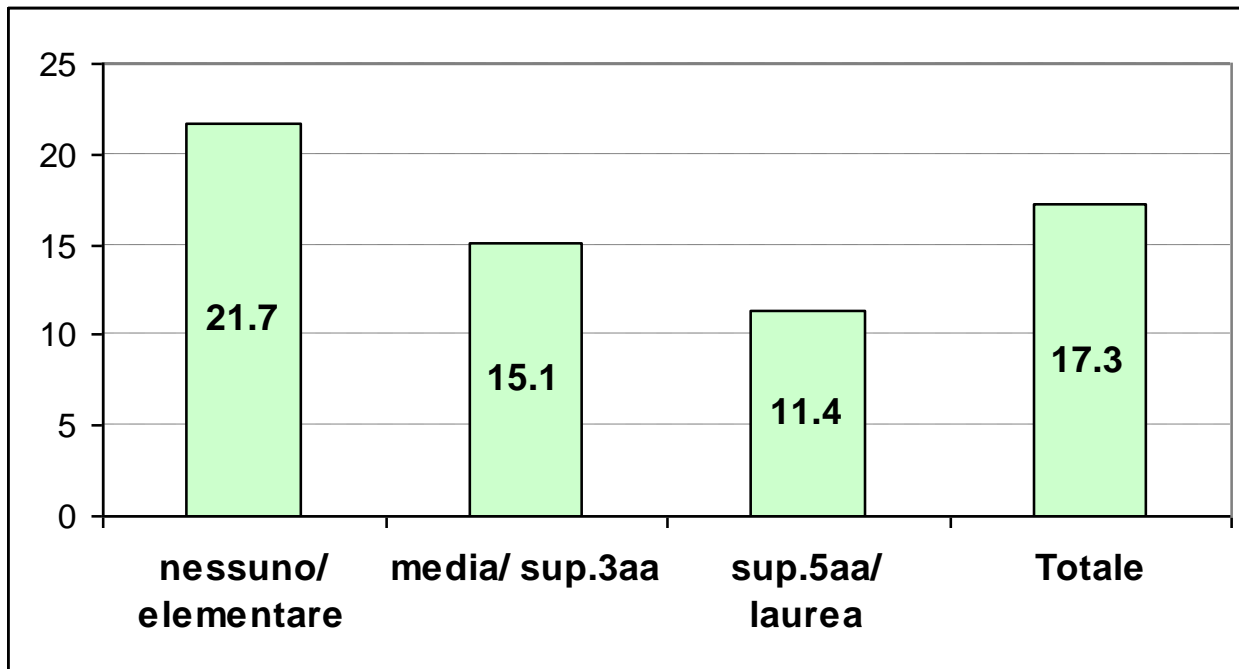
Income in 2008



Ischaemic heart disease age adjusted 2009



Educational inequalities in % of diabetic patients not complying the recommendation of HbA1c control every six months



Pro-active pathways of care of chronic diseases can make the difference in outcomes, equity at the same cost

MORE EQUITY FOCUSED LOCAL/REGIONAL (CHRONIC DISEASE PLAN) AND NATIONAL PROGRAMMES (WAITING LISTS, OUTCOME EVALUATION AND AUDIT)

Health care model	Mortality RR	Equity RR	Cost RR
GP + Digital guidelines	1.00	1.11	1.00
GP + guidelines	1.29	1.15	1.14
GP	1.00	1.03	1.00

2. Lower mortality inequalities

1. Lower mortality

3. Equal or lower costs compared to model with higher mortality

Policy response in Italy under the umbrella of JAHEE?

WP5 monitoring: **UNA COVARIATA SOCIALE IN NSIS**

WP6 healthy living environments: **NUOVO PNP**

WP7 immigration: **NO COMMENT**

WP8 health systems: **HEALTH EQUITY
AUDIT IN PROCESS OF CARE AND
OUTCOME (CHRONIC DISEASE)**

**WP9 governance/HiAP:
INTERSECTORAL MECHANISMS OF
COORDINATION/COOPERATION**

RANKING OF 23 POLICIES/ACTIONS ACCORDING TO EXPECTED IMPACT IN REDUCING HEALTH INEQUALITIES IN TORINO (feasibility in blue)

Politica / intervento

Global score

Integrazione sociali per l'integrazione dei migranti	88,7
Promuovere stili di vita salutari	77,3
Conferire priorità strategica e di integrazione nell'istruzione	71,2
Politiche di supporto economico allo studio	69,7
Promozione di salute mentale	63,7
Strategie di inclusione sociale e promozione di comunità	62,4
Alleanza scuola - famiglia	56,4
Sostegno al reddito	54,0
Formazione professionale	50,5
Orientamento	49,0
Promozione dell'attività socio-culturale dei giovani	46,9
Promozione della domiciliarità	46,4
Gestione di incontro domanda - offerta e servizi per il lavoro	43,8
Servizi e residenze per anziani non autosufficienti	42,7
Inserimento socio-lavorativo di disabili ed eventualmente protetti	37,9
Conciliazione e servizi territoriali, orari e accessibilità	36,9
Riduzione delle barriere di accesso alle cure di emergenza	25,9
Sostegno di comunità e servizi di prossimità	25,5
Risposta al bisogno sociale di abitazioni	22,2
Riduzione dell'inquinamento e aumento salutogenicità	15,0
Riqualificazione spazi abbandonati	7,5
Miglioramento delle aree verdi	7,1
Promozione della qualità nel lavoro	6,0

Legenda

- Estremo
- Molto forte
- Forte
- Moderato
- Debole
- Molto debole
- Nullo

**HEALTH EQUITY AUDIT
IN LOCAL COMMUNITIES
CHOOSING PRIORITIES
AMONG POLICIES
DIFFERENT FROM HEALTH**

Torino Social Impact

A PLATFORM OF ENTERPRISES FOR SOCIAL INNOVATION



2.5 I partner TSI

Torino Social Impact è oggi un network informale di attori della Città Metropolitana, che si sono impegnati reciprocamente attraverso la sottoscrizione di un Memorandum of Understanding.

**TURIN LONGITUDINAL STUDY AND EQUITY LENS
AS A LABORATORY FOR
IMPACT ASSESSMENT
IN SOCIAL INNOVATION AND IMPACT FINANCING**

Associazione di Progettazione sociale M.M.	Palazzo Torino/Officine	Nono	Passa Critica	SocialTech
Associazione Quinto Ampliamento	Finpiemonte spa		Officine Brand	Starteed
Associazione Rete delle Case del Quartiere	Fondazione Contrada Torino Onlus		Opera Barolo	Stefania Farina
Centro Servizi Volontariato - Vol.To	Fondazione Fitzcarraldo		Ordine dei commercialisti ed Esperti	Sumisura s.c.
Città Metropolitana Torino	IFP		Planet Idea srl	Talent Garden
Club degli Investitori	2i3T		Plug	Toolbox
Comitato imprenditorialità sociale	Impact Hub Torino		Politecnico di Torino	Top-IX
Comitato Torino Finanza	Izmade srl SB		Print Club Torino	Torino Wireless
Compagnia di San Paolo	Legacoop Piemonte		CGIL, CISL, UIL	Unicoop Piemonte
Comune di Torino	Links		S-Nodi	Unione Industriale - Gruppo Giovani imprenditori
Confcooperative Piemonte Nord	Mamazen srl		SOCIAL Community Theatre	Università degli Studi di Torino
CSP - Innovazione nelle ICT Scarl	Nesta Italia		Centre/Unito	Urban Center
	Nestor srl		SocialFare	

Health Equity Italy!

- JAHEE: where we are (Europe)
- Policy response in Italy (under the commitment of JAHEE)
- **Challenges for research (and ISS?)**
- Contribution to the SDGs agenda (ASVIS)

Causation issues behind health inequalities (FEAM/ALLEA panel)



KONINKLIJKE NEDERLANDSE
AKADEMIE VAN WETENSCHAPPEN

INVITATION

FEAM/ALLEA symposium

Health inequalities

An interdisciplinary discussion of socioeconomic position, health and causality

Despite decades of research into health inequalities there is still no consensus on some of the basic issues. For example, different disciplines hold different views on whether there is a causal effect of low socioeconomic position on health, and on what the main mechanisms linking low socioeconomic position to ill-health and premature death are. The symposium aims to bring together key opinionleaders from various scientific backgrounds and kick-start the much needed interdisciplinary discussion about these issues.

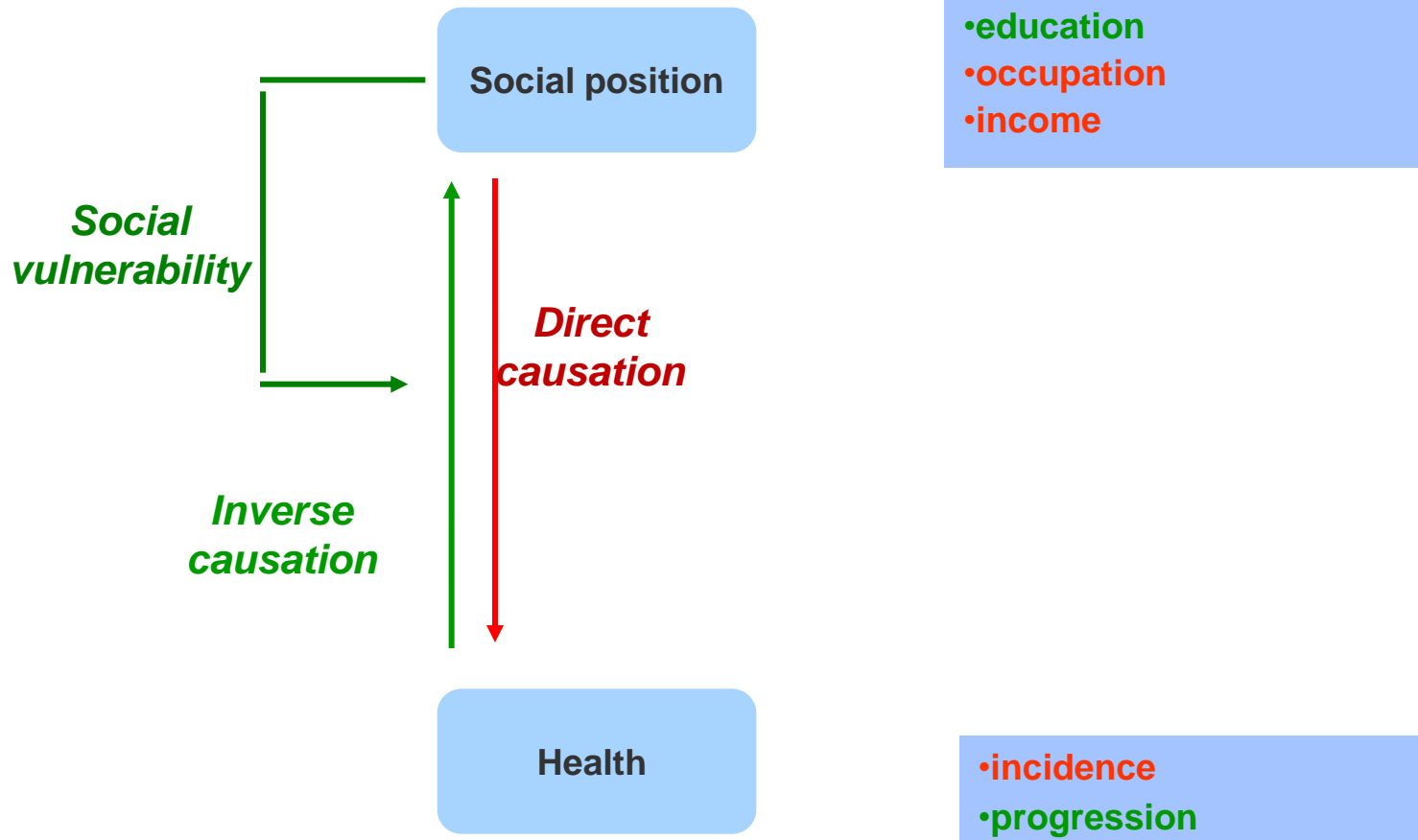
You are kindly invited to attend this international symposium. The symposium is organized by the Scientific Committee on Health Inequalities, established by the Federation of European Academies of Medicine (FEAM) and All European Academies of Science (ALLEA). The committee will present a discussion paper reviewing the evidence and charting the main areas of scientific consensus and dissensus.

Date & time: 24 May 2018, 9.30 a.m. - 17.00 p.m.

Venue: Da Costakade 102, 1053 WP Amsterdam, the Netherlands

More information: [Academy website](#)

Explanatory framework: **good** **poor** evidence



A major study provides additional insight since the time of the 2015 review: using Swedish data on players of the national lottery (the majority of the population in Sweden) to estimate the impact of random income shocks on adult health and child development. The results of this study of relatively permanent income shift show:

- » No significant effect of wealth on mortality.
- » No measurable effect on child health or development (except for increased risk of hospitalisation and decreased risk of obesity).
- » A small reduction in adult use of mental health drugs.
- » No signs of an effect growing with time or of stronger effect at lower initial levels of wealth.

The researchers concluded that, in affluent countries with extensive social security safety nets, causal effects of wealth are not the main source for wealth-mortality gradients nor of variations in child development. Prof van Doorslaer reinforced this with his own overall conclusion that there is no strong evidence for impact of income on health in high income countries and that the expectation of greater effects at the bottom end of income distribution was not confirmed. Thus, any contribution of wealth on health may be minor.

**A natural policy experiment
Cesarini 2016**

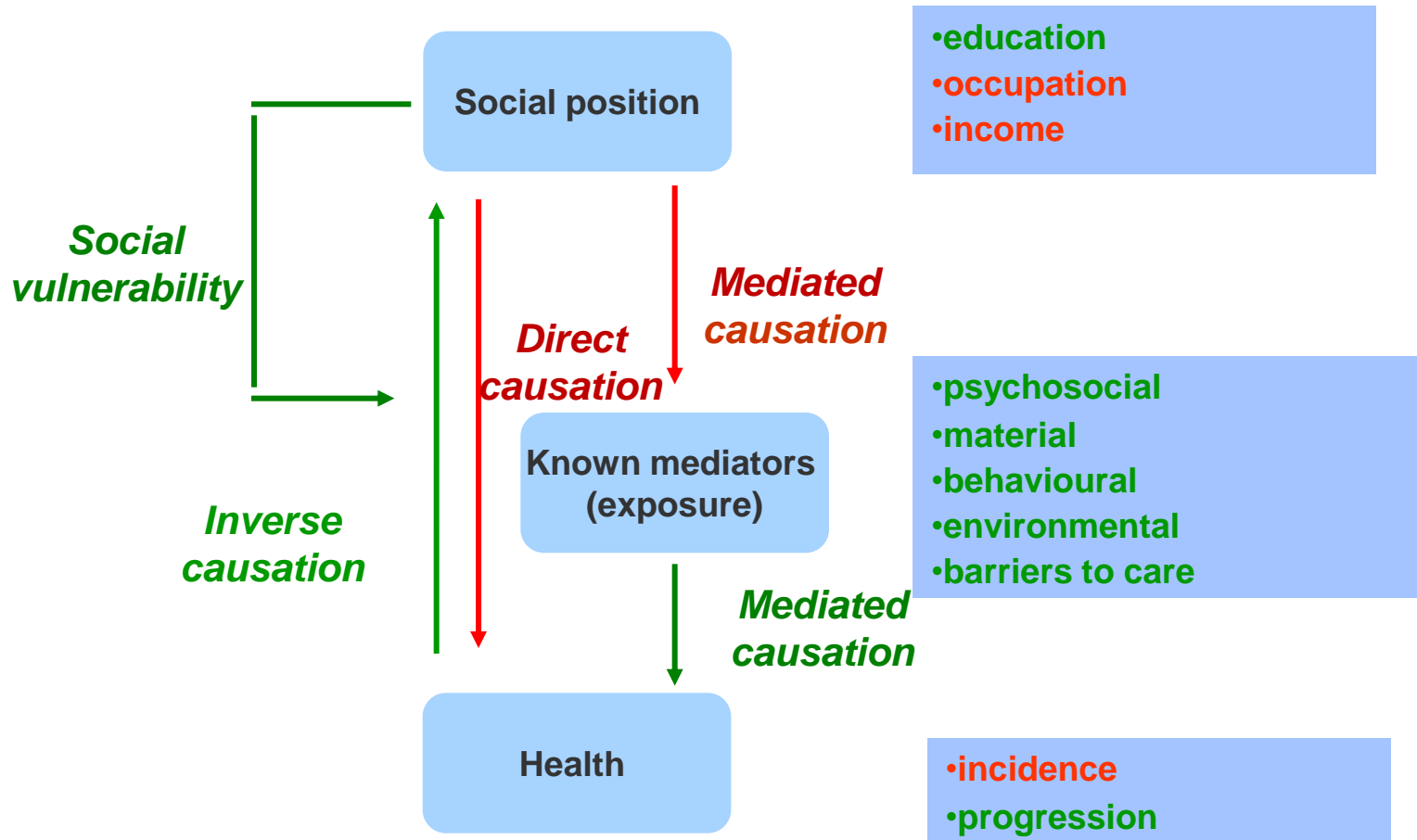
» *Child health* A systematic review in 2017 “does money affect children’s outcomes?” draws on randomised clinical trials, quasi-experimental and longitudinal studies. This review concludes that income has causal effects on a wide range of outcomes including child physical health and development, cognitive and social achievement. Low income was not found to be a proxy for other factors such as education. Two potential mechanisms were proffered for the impact: (i) Investment model – via parents’ ability to invest in goods and services that promote a child’s healthy development; and (ii) Family stress model – low income affects parents’ mental health and influences their behaviour. Recent evidence from the UK Millennium Cohort Study (2017)⁷, analysing the time of first transition into income poverty, discloses increased child and maternal mental health risk (the latter influencing the former). Other work finds a dose-response relationship of poverty with child mental health risk, and longitudinal studies show that children from less advantaged backgrounds had higher risk of premature death in adulthood.

The public health point of view: M. Whitehead (Liverpool Univ.)

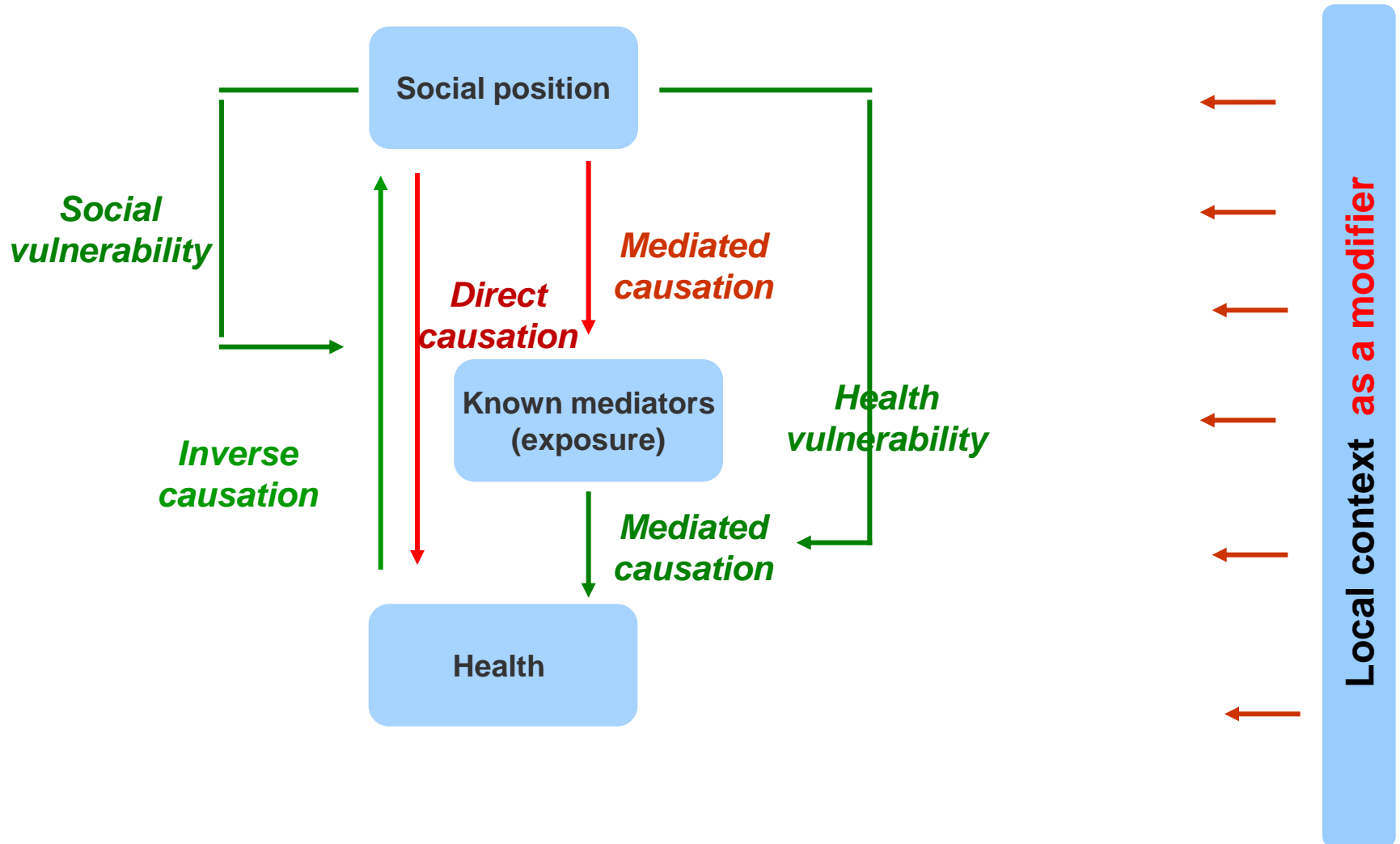
Adult health A systematic review in 2015 on “does money in adulthood affect adult outcomes?” provides strong evidence that additional resources reduce mental health problems, with the effect pronounced in lower socioeconomic groups. A recent US study on negative wealth shocks in middle-aged and older adults finds significant mental health toll and increased all-cause mortality over 20-years follow-up.

(*reverse causation*)? People with disability are at greater risk of living in or near poverty. But there are large differences between countries and the effect is context/policy dependent. Meta-analysis in 2015 shows that poor health in adolescence is associated with poorer education and employment in adulthood, with the evidence stronger for mental health conditions. Thus, public investment in health may improve life chances. Having to pay for health care is particularly impoverishing but there is a lack of EU evidence on this point.

Explanatory framework: good poor evidence



Explanatory framework: **good** **poor** evidence



Research agenda for public health: mechanisms



What are the implications of LIFEPATH evidence for future research on lifestyle and environment related diseases ?

Béatrice Fervers
Scientific Advisory Board

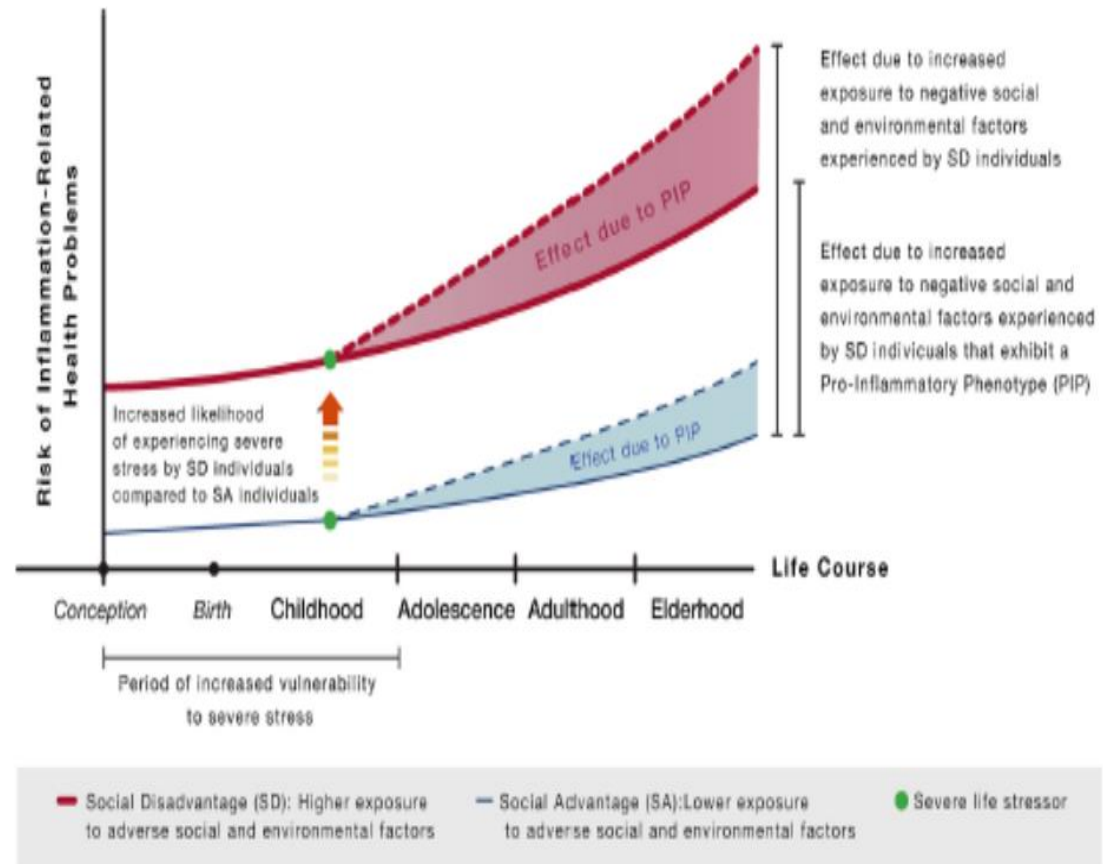
27/03/2019

Effect Modification by Socioeconomic Position (SEP)

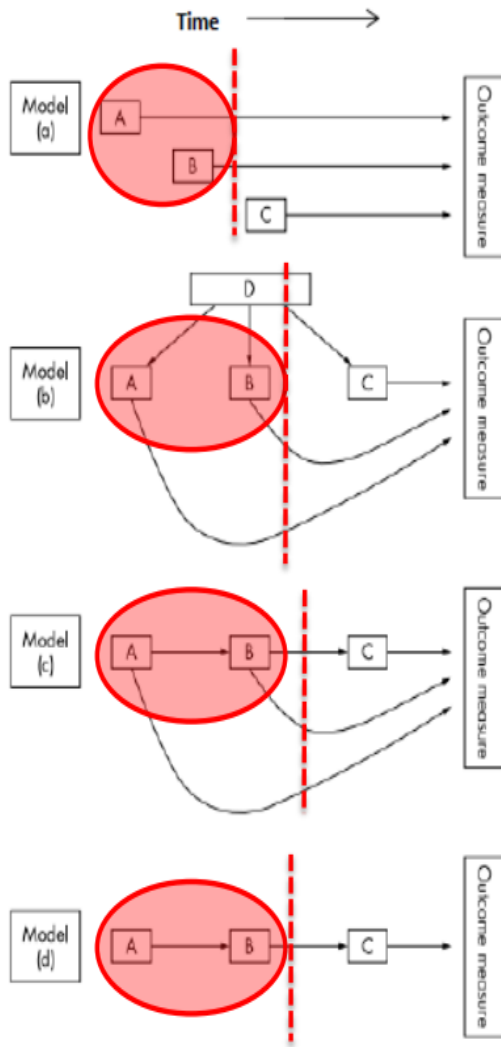
HA. Olvera Alvarez et al.

Neuroscience and Biobehavioral Reviews 92 (2018) 226–242

- Activation of similar pathways
- Synergistic effects
- Social factors may act as inflammation-inducing trigger
- Increased inflammatory responsiveness to environmental factors



Effect models over the life course: Left truncation of exposure data



- **Critical period model**

- Exposure during a specific (sensitive) period has lasting or lifelong effect on the structure or physical functioning of organs
- “biological programming” or “latency model”

- **Critical period model with later effect modifiers**

- Later life factors may modify the effect of an exposure during a critical period of development on later disease risk : synergism or antagonism.

- **Cumulative model**

- Multiple effects accumulate over the life course.
- Cumulative damage to biological systems
- During developmental periods susceptibility may be greater
- Sequence or trajectory of accumulation may be important

- **Chain of risk model/Trigger model**

- Sequence of linked exposures where one leads on to the next.
- Various intermediate factors between early life and adult health – such as lifestyle, educational attainment, social class and health behaviours
- Timing of exposures may affect disease risk

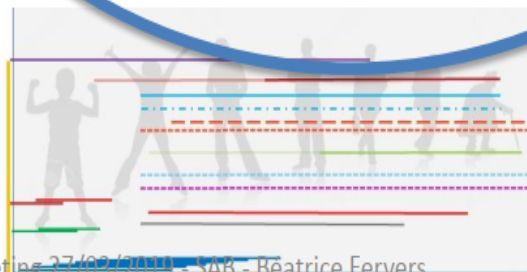
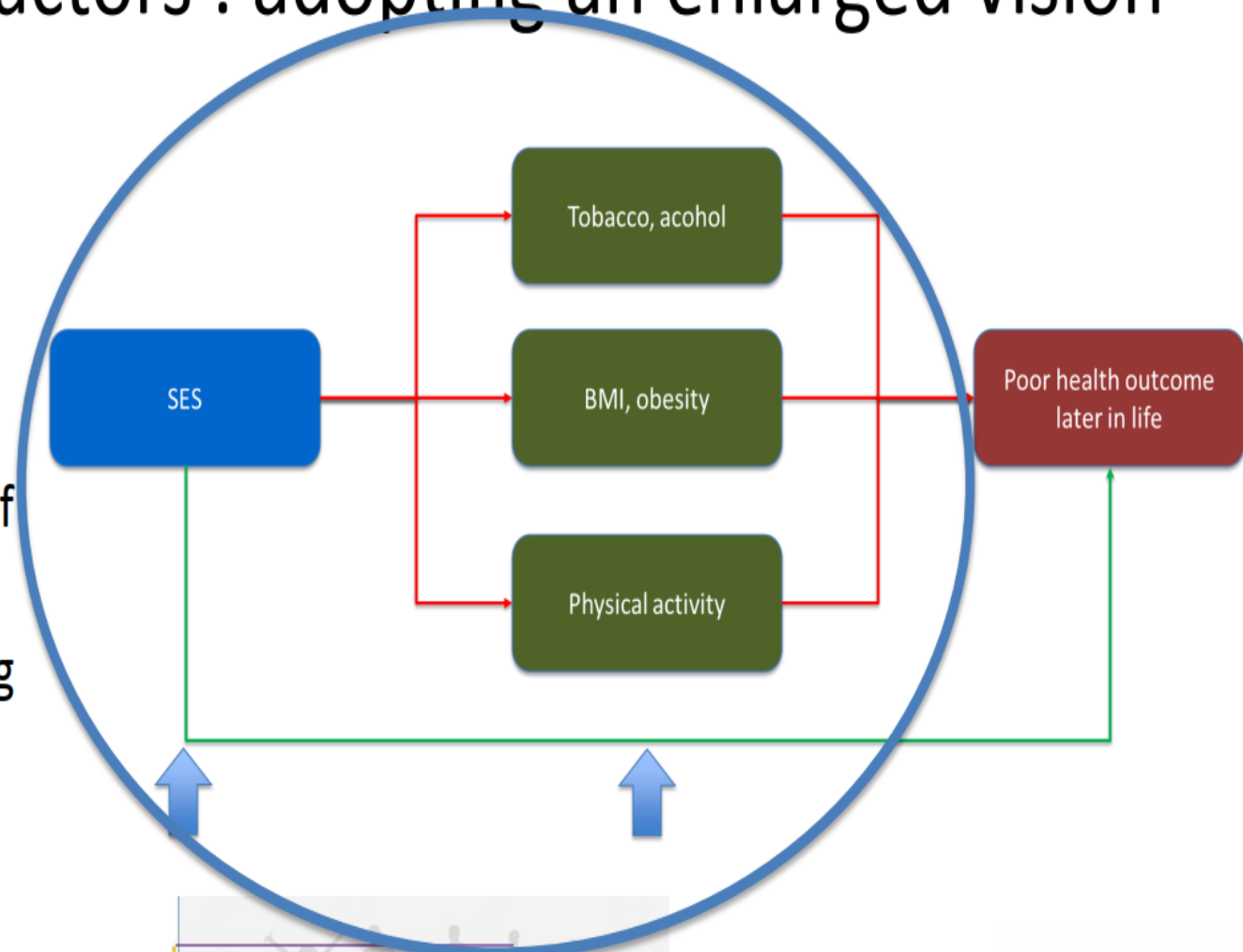
Impact of Lifepath evidence on intervention studies on life style factors : adopting an enlarged vision

Target of intervention

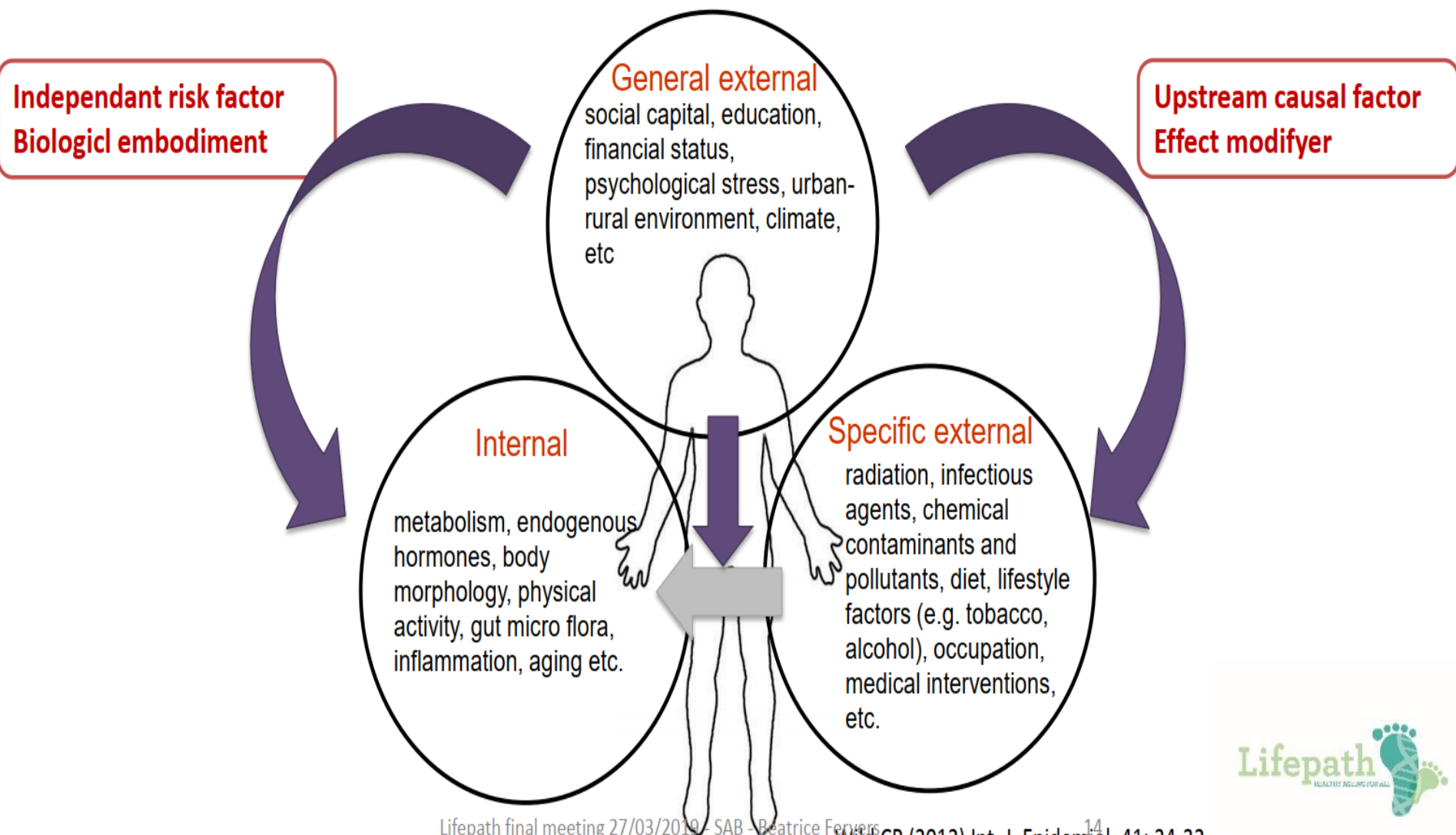
- Complementarity of intervention on intermediate risk behaviours and on the social deprivation itself

Timing

- Adolescents and young adults: pivotal life stage for intervention research



Impact of Lifepath evidence on the understanding of the exposome : Σ lifecourse exposures



Research agenda for public health: priority and target setting

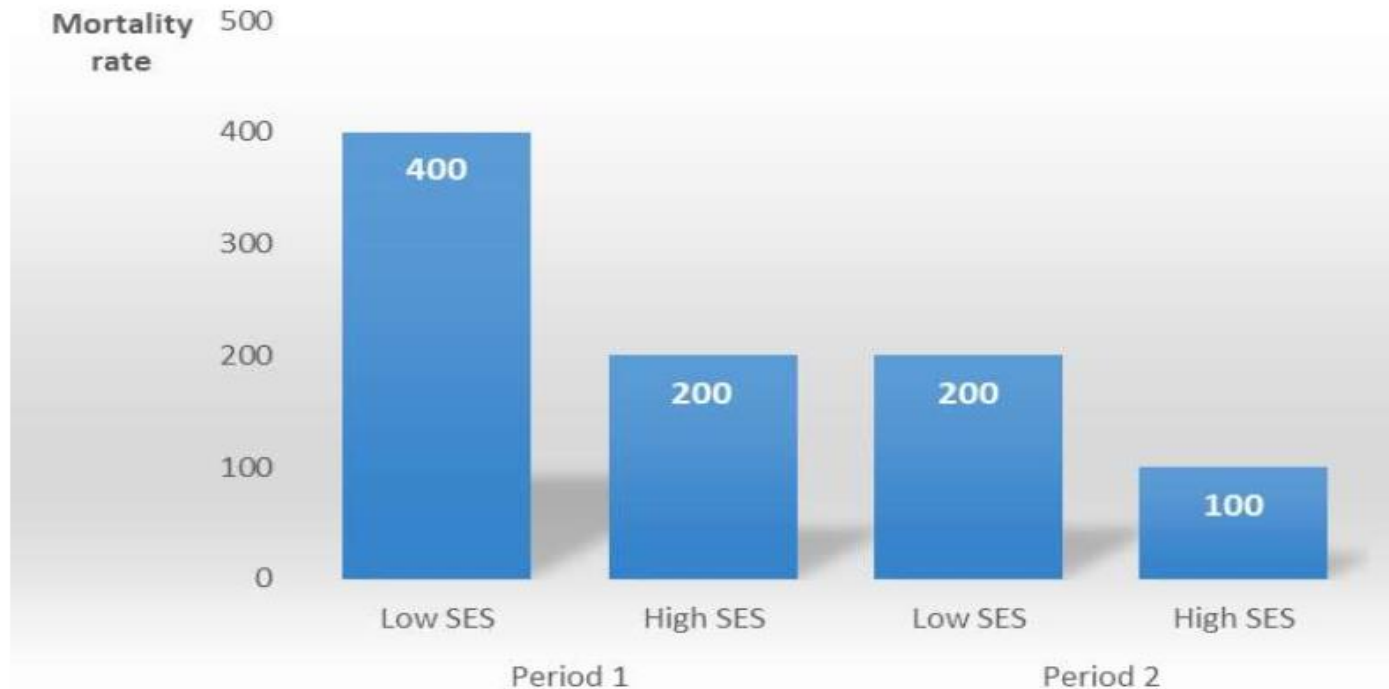


Fig. 14.1. Schematic illustration of trends in relative and absolute inequalities: mortality rates for two periods and for two different levels of socioeconomic status (SES). In period 1, the relative risk mortality for people with low versus high SES is 2 and the rate difference is 200; in period 2, relative risk is 2 and the rate difference is 100. Therefore, relative inequalities have remained the same, whereas absolute inequalities have decreased.

Research agenda for public health: proportionate universalism

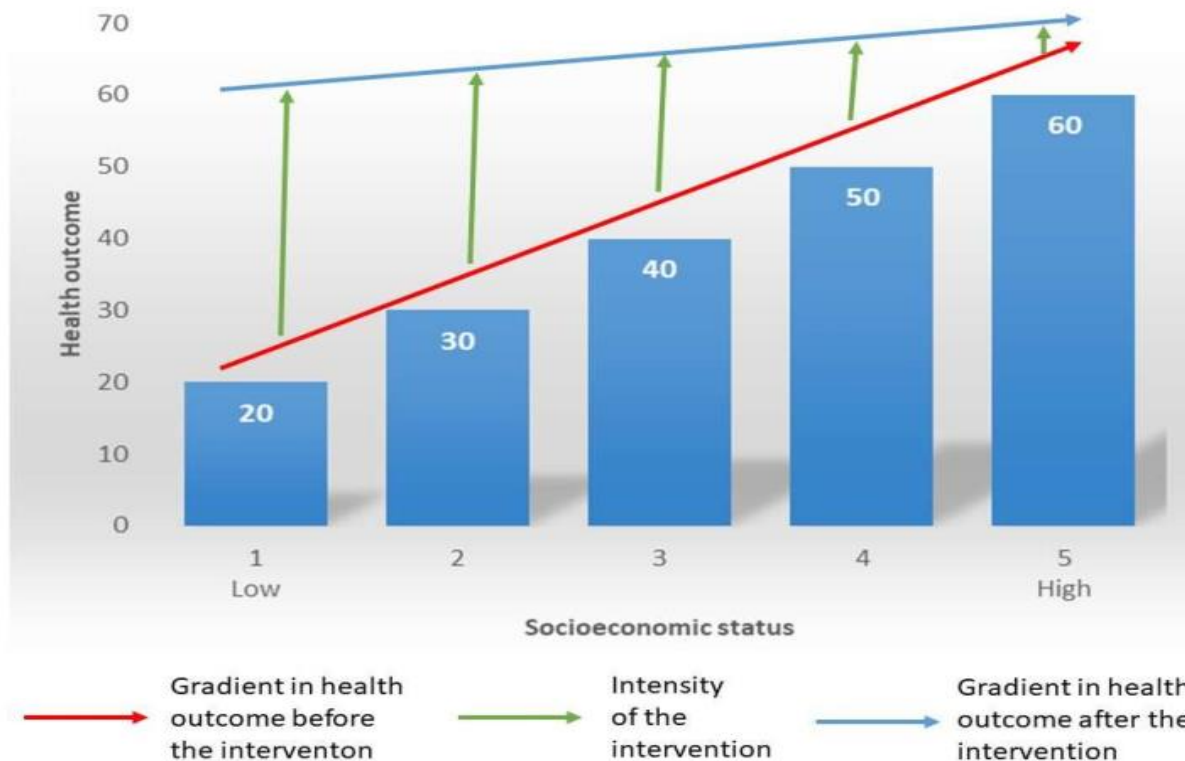


Fig. 14.2. Schematic illustration of the proportionate universalism approach: how a reduced gradient in health outcome by socioeconomic status is achieved after the implementation of an intervention which has a greater effect on those at a greater disadvantage. © Queen's Printer for Ontario, 2015. Adapted and reproduced with permission.

Research agenda for public health: natural policy experiments

- to learn which effects could we expect from the incoming introduction of the Reddito di Cittadinanza (RdC, different from Minimum Basic Income) taking advantage of:
- minimum income schemes (SIA, REI) and unemployment benefit schemes that have been or still are available, which share many features with the RdC and are amenable for a quasi-experimental impact evaluation
 - SIA and REI in INAPP and SLT (Turin)
 - Unemployment benefit and lay off policies in WHIP salute (UNITO and Bocconi): discontinuity in duration, amount and reciprocity of the benefit

About Natural Policy Experiments: the case of gambling

Different SES independent causes?

More exposure and more vulnerability among low SES and in deprived areas

Brown K, Pickernell D, Keast R, McGovern M (Editors). Socio-economic impacts of access to EGMs in Victoria: Effects on demand and communities. Final Report. Office of Gaming and Racing, Victorian Government Department of Justice, Melbourne, December 2011.

Miller H. Background paper. Risk factors for problem gambling: environmental, geographic, social, cultural, demographic, socio-economic, family and household. Victorian Responsible Gambling Foundation. May 2015.

Barnes GM, Welte JW, Tidwell MO, Hoffman GH. Effects of Neighborhood Disadvantage on Problem Gambling and Alcohol Abuse. *J Behav Addict*. 2013 June; 2(2): 82–89.

Layton A, Worthington A. The impact of socio-economic factors on gambling expenditure. *International Journal of Social Economics* 26(1-3):pp. 430-440 (1999).

Low education: poor cognitive competences needed to refuse gambling schemes?

Miller H. Background paper. Risk factors for problem gambling: environmental, geographic, social, cultural, demographic, socio-economic, family and household. Victorian Responsible Gambling Foundation. May 2015.

Kaizeler MJ, Faustino HC, Marques R. The Determinants of Lottery Sales in Portugal. *J Gambli Stud* (2014) 30:729–736.

Welte JW, Barnes GM, Tidwell MO, Wieczorek WF. Predictors of Problem Gambling in the U.S. *J Gambli Stud* (2016) Published online 24 August.

Critical life events (unemployment, financial stress, family disruption): direct and inverse causation

Centre for Social and Health Outcomes Research and Evaluation & Te Ropu Whariki. Socio-Economic Impacts of Gambling Developing a methodology for assessing the socio-economic impacts of gambling in New Zealand. Auckland February 2006.

Williams, R.J., Rehm, J., & Stevens, R.M.G. (2011). The Social and Economic Impacts of Gambling. Final Report prepared for the Canadian Consortium for Gambling Research. March 11, 2011.

Town of Plainville. Social and economic impacts of gambling. Deliverable 2: Review of Relevant Existing Research. 2013.

Deprived areas: poverty of success and economic ransom stories

Miller H. Background paper. Risk factors for problem gambling: environmental, geographic, social, cultural, demographic, socio-economic, family and household. Victorian Responsible Gambling Foundation. May 2015.
Welte JW, Barnes GM, Tidwell MO, Wieczorek WF. Predictors of Problem Gambling in the U.S. J Gambl Stud (2016) Published online 24 August.

Other social risk factors: loneliness, juvies, gambling in the family, social capital (?)

Miller H. Background paper. Risk factors for problem gambling: environmental, geographic, social, cultural, demographic, socio-economic, family and household. Victorian Responsible Gambling Foundation. May 2015.

Low SES victims of regressive taxation:

Welte JW, Barnes GM, Tidwell MO, Wieczorek WF. Predictors of Problem Gambling in the U.S. J Gambl Stud (2016) Published online 24 August.
Williams, R.J., Rehm, J., & Stevens, R.M.G. (2011). The Social and Economic Impacts of Gambling. Final Report prepared for the Canadian Consortium for Gambling Research. March 11, 2011.
Town of Plainville. Social and economic impacts of gambling. Deliverable 2: Review of Relevant Existing Research. 2013.

Equity oriented policies

new Piedmont law (NPE?)

- National and local regulation not requiring collaboration from the victims
- Fiscal regulation of the mix of offer proportional to the propensity of creating addiction
- Educational investment to increase cognitive competences needed to assess the probability of success in gambling
- Local regulation of exposure/access to gambling opportunities
- Damage reduction and control for inverse causation

Health Equity Italy!

- **JAHEE: where we are (Europe)**
- **Policy response in Italy (under the commitment of JAHEE)**
- **Challenges for research (and ISS?)**
- **Contribution to the SDGs agenda (ASVIS)**

At the European JAHEE level

- despite general agreement on the reasonableness of the HiAP approach, its implementation in practice is rarely occurring with the exception of the environmental field; however social health inequalities is the most challenging area where HiAP is absolutely required; 17 countries out of the 24 participating to the JA (**WP9 in HIAP is the most popular WP in JAHEE**) decided to commit themselves to improve the **intersectorial governance** in some level of policy making;
- an additional impact at the European level is that the work of the specialized country assessments in each of the thematic WP (limited to the WP participants) and of the general country assessment of WP4 (for all the participating countries) will be a unique opportunity **to update** with a new piece of comparative evidence of differences in policy responses made across Europe after **the 2013 EU review**.

**Is it of any value for the ASVIS
commitment at the European level?**

At the Italian JAHEE level

How can we improve the collaboration and coordination structures and mechanism for intersectoral governance in the case of health equity, taking advantage of the the ASVIS activity and programmes?

- **The ASVIS platform of stakeholders**
- **The ASVIS mechanisms of engagement and accountability**
- **The ASVIS capacity building and education tools**
- **...**

Is it Italian JAHEE workplan of any value for the ASVIS Italian commitment

Health Equity Italy!

- **JAHEE: where we are (Europe)**
- **Policy response in Italy (under the commitment of JAHEE)**
- **Challenges for research (and ISS?)**
- **Contribution to the SDGs agenda (ASVIS)**



Disuguaglianze di salute

Ridurre le disuguaglianze con azioni
di contrasto sui determinanti sociali

<http://www.disuguaglianzedisalute.it/>