

# The European and Italian agenda on health inequalities: priorities for Health Equity Audit

Giuseppe Costa

AIE Catania Oct 25, 2019

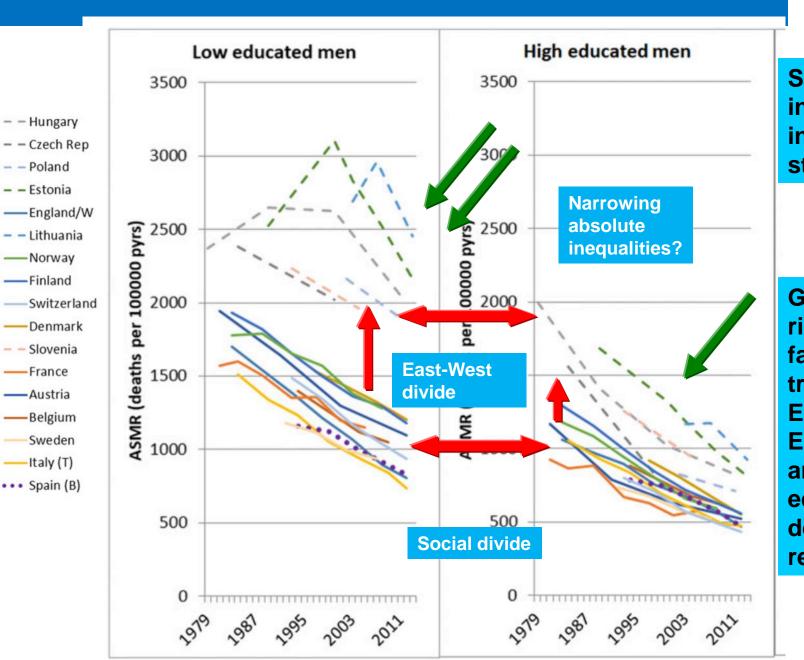
### Health Equity in the agenda

- Facts: health inequalities in Europe, Italy and local level
- Explanations: causality issues behind health inequalities (FEAM/ALLEA)
- Entry points for policies (WHO Europe)
- Policy response: the new European joint action (JAHEE)
- The Italian agenda

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



Social inequalities in health are still there

Going the right way: favourable trends also in Eastern Europe and among lower educated, despite the recession

4

### **LIFE EXPECTANCY BY EDUCATION, ITALY 2011-2014**



### **LIFE EXPECTANCY BY EDUCATION, ITALY 2011-2014**

www.eplprev.l

WOMEN (2)

85.0

85.6

85.5

85.6

85.5

85.1

WOMEN (2)

84.9

85.1

95.9

85.6

85.1

84.9

85.7

85.3

min c

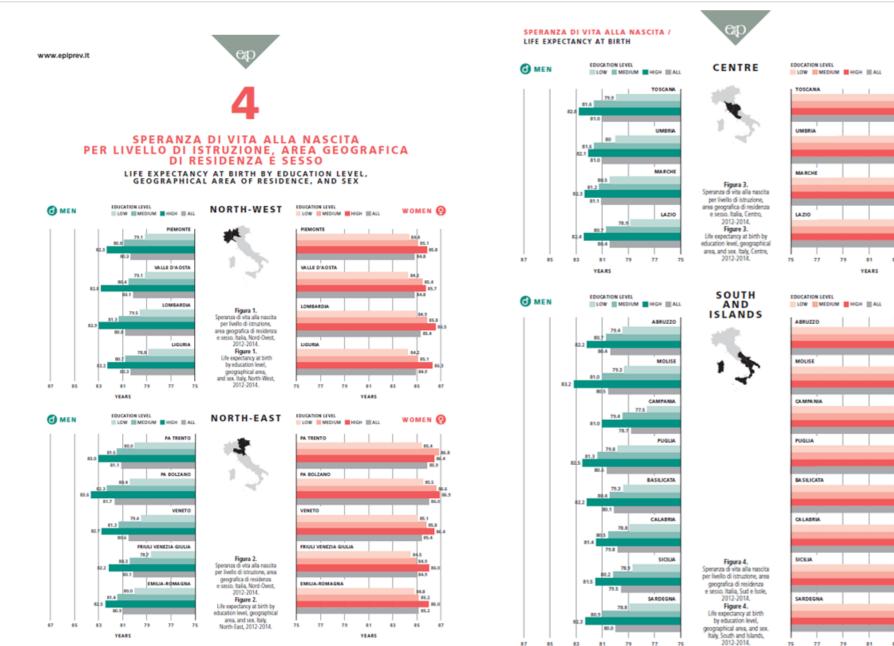
83.3

82.9

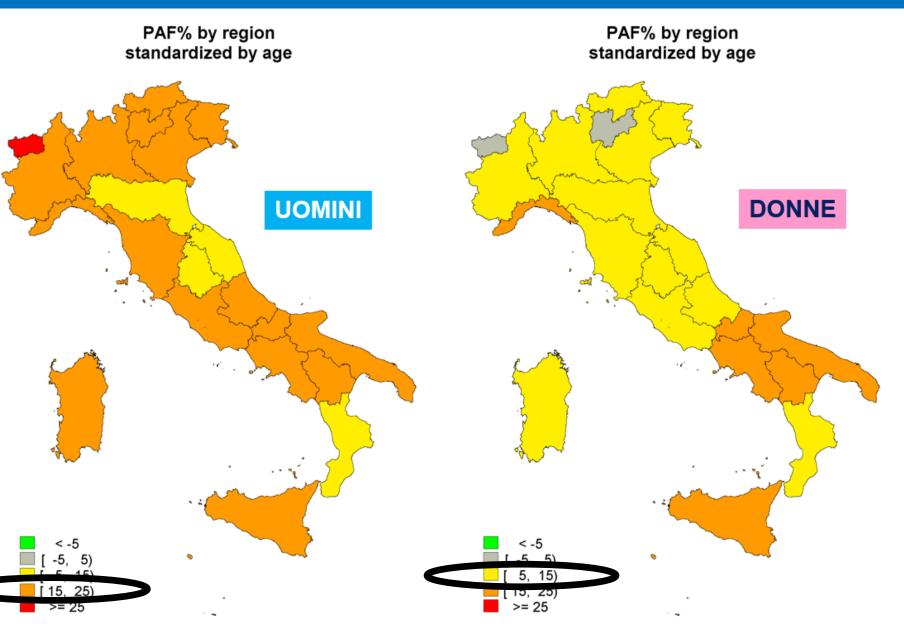
84.0

85

86.0



### OF DEATHS «ATTRIBUTABLE» TO LOW EDUCATION, ITALY 2011-2014

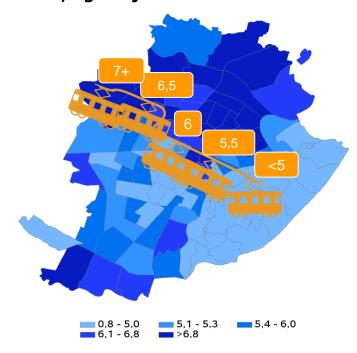


Petrelli et al., 2019



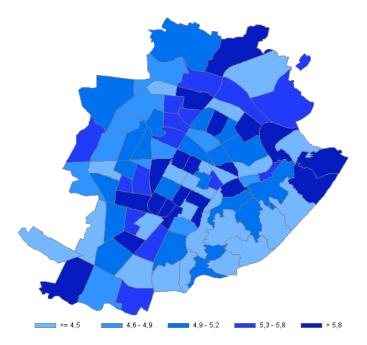
Education	
High	4,5
Middle	6,5
low	13

### Prevalence % of diabetes in Turin in 2017, age adjusted



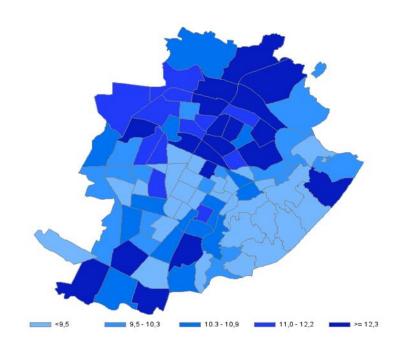
# Health equity rationale for the «Piano Nazionale Cronicità»

### Mortality % among diabetes patients 2016-2018 in Turin, age adjusted



Education	
High	5,1
Middle	5,1
Low	5,6

### Incidence ‰ of diabetes in Turin in periodo 2016-2018, age adjusted



Education	
High	8,8
Middle	11,9
Low	15,6

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# The more recent effort of assessment of evidence of causality behind health inequalities



### KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN

#### **DISCUSSION PAPER**

HEALTH INEQUALITIES an Interdisciplinary Exploration of Socioeconomic Position, Health and Causality





### **Health Inequalities**

AN INTERDISCIPLINARY EXPLORATION OF SOCIOECONOMIC POSITION, HEALTH AND CAUSALITY

SYMPOSIUM REPORT

November 2018







### Annex 1: FEAM/ALLEA Committee on Health Inequalities

#### Professor Johan Mackenbach, chair

- Professor of Public Health, Erasmus Medical Center, Rotterdam, The Netherlands
- · Royal Netherlands Academy of Arts and Sciences

#### **Professor Giuseppe Costa**

· Professor of Public health, Dept. Clinical and Biological Sciences, University of Turin, Italy

#### **Professor Johannes Siegrist**

 Senior Professor Work Stress Research, Institut f
ür Medizinische Soziologie, Heinrich-Heine-Universit
ät D
üsseldorf, Germany

#### Dr. Domantas Jasilionis

- Max Planck Institute for Demographic Research, Rostock, Germany
- Center for Demographic Research, Vytautas Magnus University, Kaunas, Lithuania

#### Professor Alfred Spira

- Professor of Public Health and Epidemiology, Université Paris Sud, France
- French Academy of Medicine

#### Professor Denny Vagero

- · CHESS, Centre for Health Equity Studies, Stockholm University/ Karolinska Institutet, Sweden
- Royal Swedish Academy of Sciences

#### Professor Brian Nolan

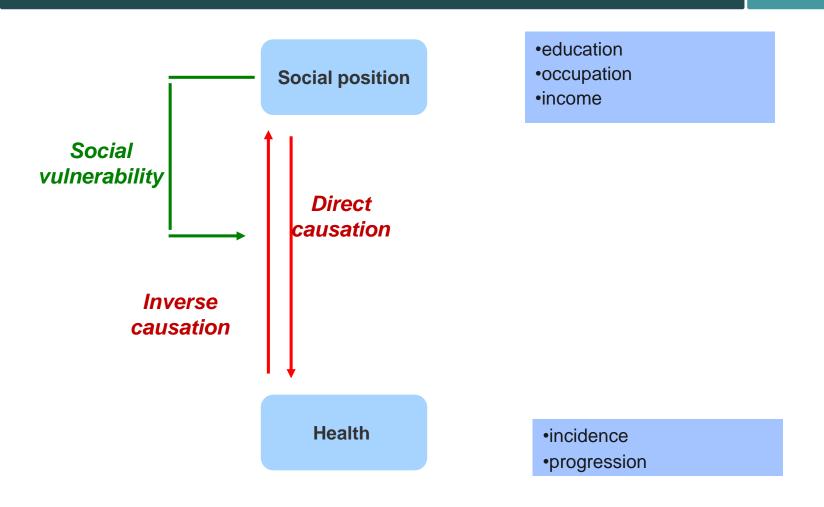
- Professor of Social Policy, Institute for New Economic Thinking, Nuffield College, University of Oxford
- Royal Irish Academy

#### Dr. Jean Philippe de Jong, secretary

· Royal Netherlands Academy of Arts and Sciences

Amsterdam, November 2018
FEAM/ALLEA Committee on Health Inequalities
Reporters: Johan Mackenbach and Jean Philippe de Jong (KNAW)

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



- » Does health inequality affect income inequality (reverse causality)? Yes.
- » Does income inequality affect adult health inequality? Not proven, but there may be a stronger relationship longer-term.
- » Does income inequality affect population health? No.
- » Early life conditions, including parental income, do matter for child health.
- » The health of the poor is more vulnerable to income shocks.
- » There are stronger effects in low- and middle-income countries.

The economic sciences point of view Eddy Van Doorslaer Review on income and health 2015

Does higher income/wealth cause better health? The answer expected from economic theory on investment and consumption benefits is yes (because the rich demand more health and can afford market prices, although they can also afford harmful behaviour), but the empirical evidence is not so clear. Because there is little scope for experimentation, quasi-experimental methods are invoked (using "natural experiments" such as German unification), together with the search for impacts of exogenous variation in wealth (e.g. lottery wins).

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 discloses into income poverty, increased child and maternal mental health risk (the latter influencing the former). Other work finds a doseresponse 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.

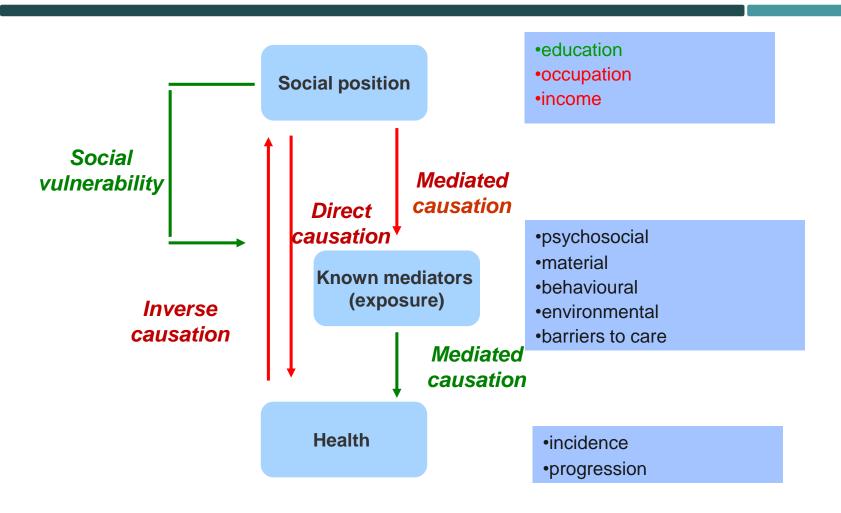
### The public health point of view: M. Whitehead (Liverpool Univ.)

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.

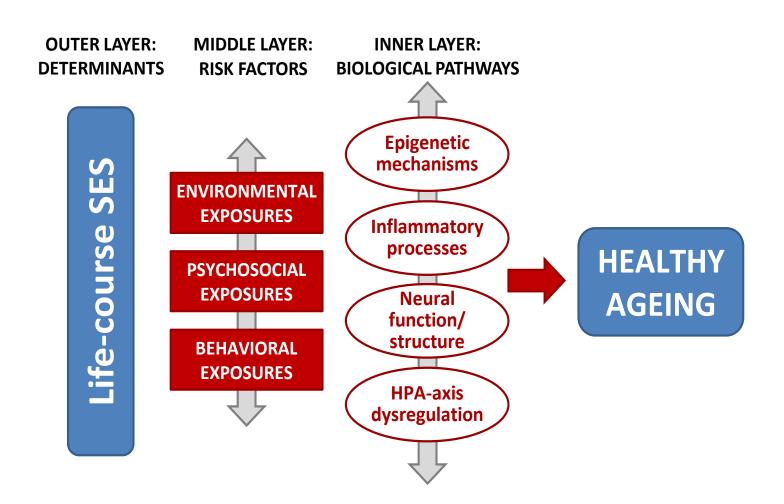
HEALTH
EQUITY
RATIONALE
FOR THE
«REDDITO DI
CITTADINAN
ZA»?

(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.

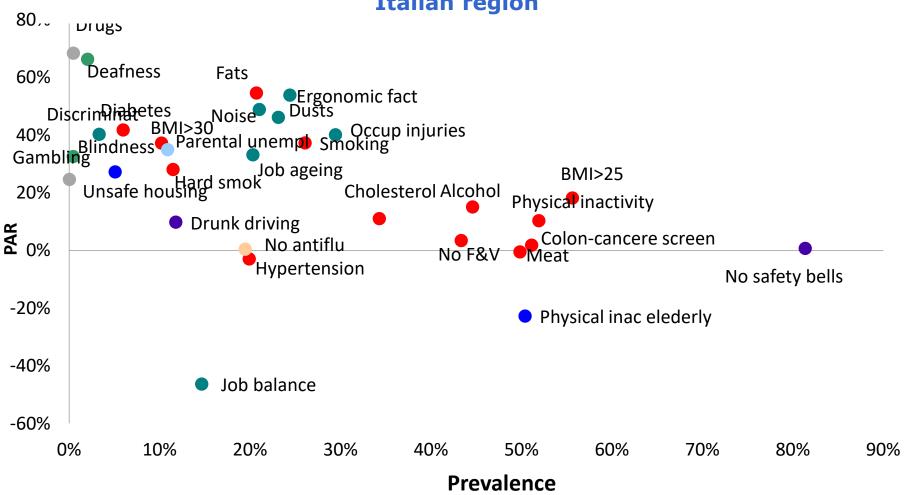
### Explanatory framework: good poor evidence







# Prevalence of 38 risk factors targeted by the National Preventive Plan and fraction exposure «attributable» to low education in one Italian region

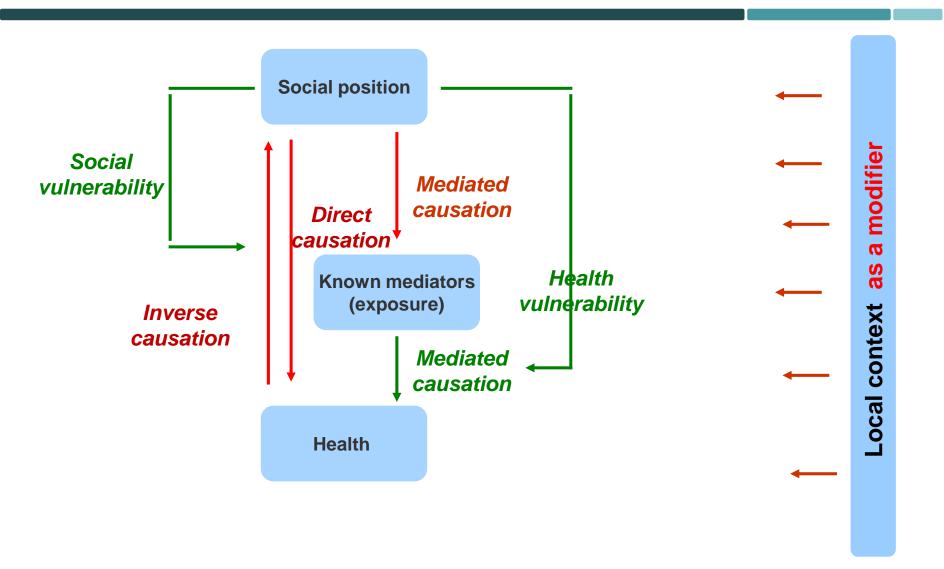


# Health equity rationale for the «Piano Nazionale di Prevenzione»

# Contribution of educational inequalities in exposure to risk factors to the mortality «attributable» to low education in Italy 2011-2014

Uomini	Fumo	Alcol	ВМІ	AF	F&V	Donne	Fumo	Alcol	BMI	AF	F&V
Piemonte	15.8%	1.6%	9.2%	21.8%	0.6%	Piemonte	5.5%	1.0%	22.2%	30.3%	0.6%
Liguria	23.8%	1.1%	8.4%	15.7%	3.0%	Liguria	2.6%	3.8%	22.5%	28.2%	1.5%
Lombardia	8.0%	1.7%	9.8%	18.5%	1.5%	Lombardia	2.9%	0.6%	19.2%	31.3%	3.6%
Trentino	5.1%	4.9%	4.1%	11.7%	0.9%	Trentino	2.1%	0.7%	11.6%	9.9%	2.5%
Veneto	4.3%	1.7%	7.4%	14.1%	0.5%	Veneto	0.4%	2.4%	10.2%	8.9%	0.3%
Friuli	5.6%	2.5%	7.1%	14.1%	2.4%	Friuli	5.7%	6.0%	12.2%	16.6%	1.3%
Emilia	4.1%	0.4%	1.6%	9.2%	0.9%	Emilia	1.5%	1.1%	26.3%	29.4%	1.2%
Marche	5.2%	3.6%	7.5%	18.5%	1.5%	Marche	1.1%	0.1%	18.5%	11.2%	0.9%
Toscana	11.7%	2.9%	9.5%	12.8%	1.1%	Toscana	1.2%	0.0%	14.5%	15.1%	1.5%
Umbria	7.5%	11.8%	8.0%	17.3%	1.5%	Umbria	1.0%	2.0%	14.0%	13.2%	0.9%
Lazio	15.0%	4.3%	4.0%	24.8%	3.9%	Lazio	1.1%	0.5%	13.5%	24.1%	3.1%
Campania	21.2%	6.0%	8.6%	17.5%	2.3%	Campania	0.4%	0.3%	13.0%	13.5%	1.1%
Abruzzo	11.5%	2.6%	6.7%	22.6%	2.7%	Abruzzo	0.5%	0.2%	18.9%	12.8%	0.8%
Molise	12.1%	4.9%	7.0%	25.6%	2.6%	Molise	0.9%	1.6%	18.1%	13.1%	1.8%
Puglia	12.0%	6.0%	4.5%	17.6%	1.0%	Puglia	0.1%	0.8%	12.9%	13.9%	1.2%
Basilicata	7.4%	13.2%	5.5%	22.3%	1.5%	Basilicata	0.1%	1.4%	10.0%	18.1%	2.1%
Calabria	10.2%	7.3%	8.6%	19.8%	1.6%	Calabria	0.5%	0.9%	14.6%	16.1%	2.7%
Sicilia	11.3%	2.6%	4.7%	22.1%	1.7%	Sicilia	0.4%	0.9%	14.0%	11.5%	0.8%
Sardegna	7.6%	7.0%	4.1%	18.8%	3.3%	Sardegna	1.9%	1.1%	13.9%	20.7%	1.3%

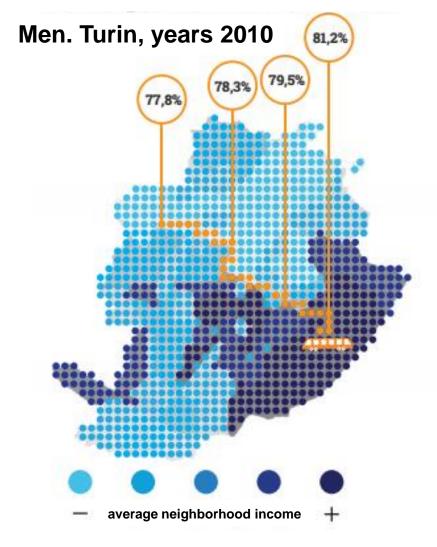
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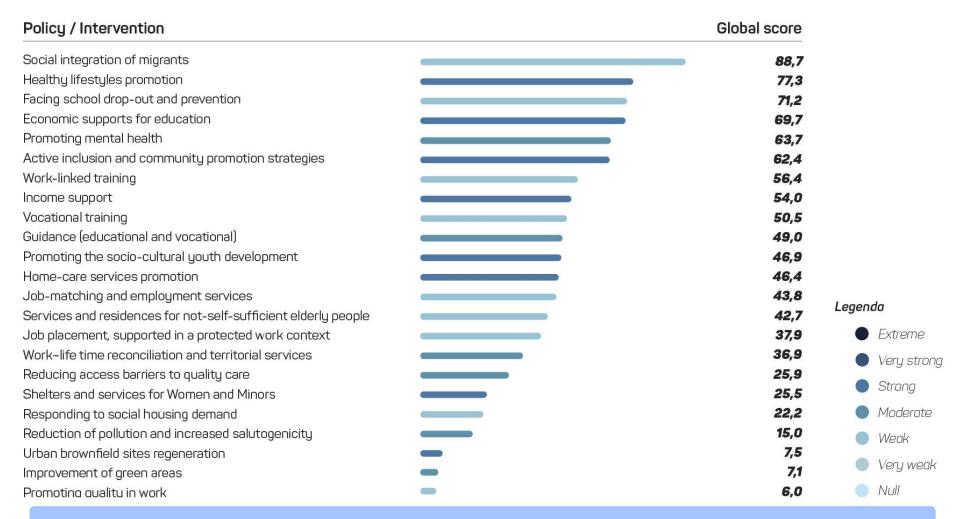
### AT THE LOCAL LEVEL FACTS/DATA (EQUITY LENS) STARTER OF HEALTH EQUITY AUDIT PROCESS



# Life expectancy at birth by area of residence



# Ranking of policies according to weight on social inequalities in premature mortality.



Health equity rationale for the «welfare generating community initiatives»

# The more recent effort of assessment of evidence of causality pealpone alth inequalities FEAM/ALLEA Committee on Health Inequalities

second phase AM/ALLEA Committee on Health Inequalities

Professor Johan Maria KONINKLIJKE N AKADEMIE VAN W ris January 202 Berlin March 2020

d Biological Sciences, University of Turin, Italy

CHESS, Centre for Health Equity Studies, Stockholm University/ Karolinska Institutet, Sw

Royal Swedish Academy of Sciences

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Amsterdam, November 2018 FEAM/ALLEA Committee on Health Inequalities Reporters: Johan Mackenbach and Jean Philippe de Jong (Kl







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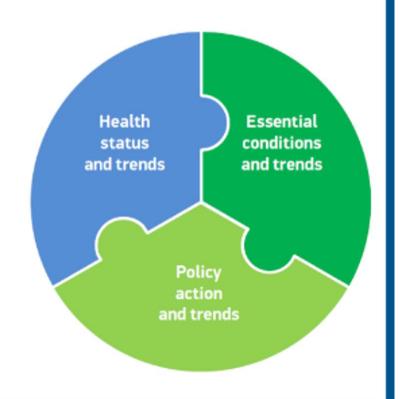
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# How will the Health Equity Status Report Initiative (HESRi) help us?

The Health Equity Status Report Initiative gives a full picture of trends in the status, conditions needed, and effective policy actions for health equity.

Country-specific data helps policy-makers to tailor their responses and investments in health equity.



### #EquityinHealth



### 5 conditions have a significant impact on health inequities in the WHO European Region



Health & Health Services



Health ® Income Security and Social Protection



Health ® Living Conditions



Health ® Social and Human Capital



Health & Employment and Working Conditions

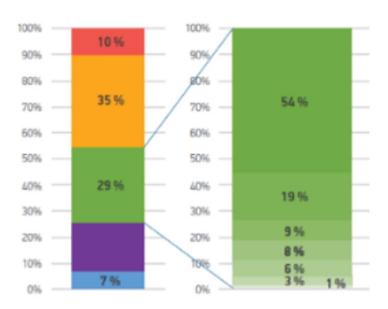
### #EquityinHealth



On average, 29% of the inequity in self-reported health between the most and least affluent 20% in a country is due to systemic differences in the quality, affordability and safety of living conditions and local neighbourhoods.

Breaking down subfactors of the gap explained by living conditions

- Housing deprivation
- Fuel deprivation
- Lack of green space
- Unsafe neighborhood
- Overcrowding
- Low air quality
- Food deprivation



Subfactors of the health gap explained by living conditions (%)



This two-year pilot project aims to invest in people and improve their immediate surroundings by providing a guaranteed minimum income. It focuses activities in the Eix Besòs area of Barcelona, which is characterized by lower average income, high unemployment and significant school drop-out rates.

# Health Equity in the agenda

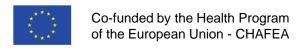
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# JOINT ACTION HEALTH EQUITY EUROPE!

Italy is leading JAHEE
24 EU member states
willing to advance policy response in
reducing health inequalities

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



### TWO IMPORTANT GAPS TO BE FILLED IN BY JOINT EUROPEAN EFFORTS

# HEALTH INEQUALITIES ARE STILL THE LARGER RESERVOIR OF HEALTH BENEFITS THAT COULD BE GAINED IN EVERY EUROPEAN COUNTRY

- -large risks attributable to social determinants of health
- -adequate evidence on mechanisms generating health inequalities
- -reasonable evidence on effective solutions and good practices



### LARGE HETEROGENEITY IN POLICY RESPONSE ACROSS EUROPE

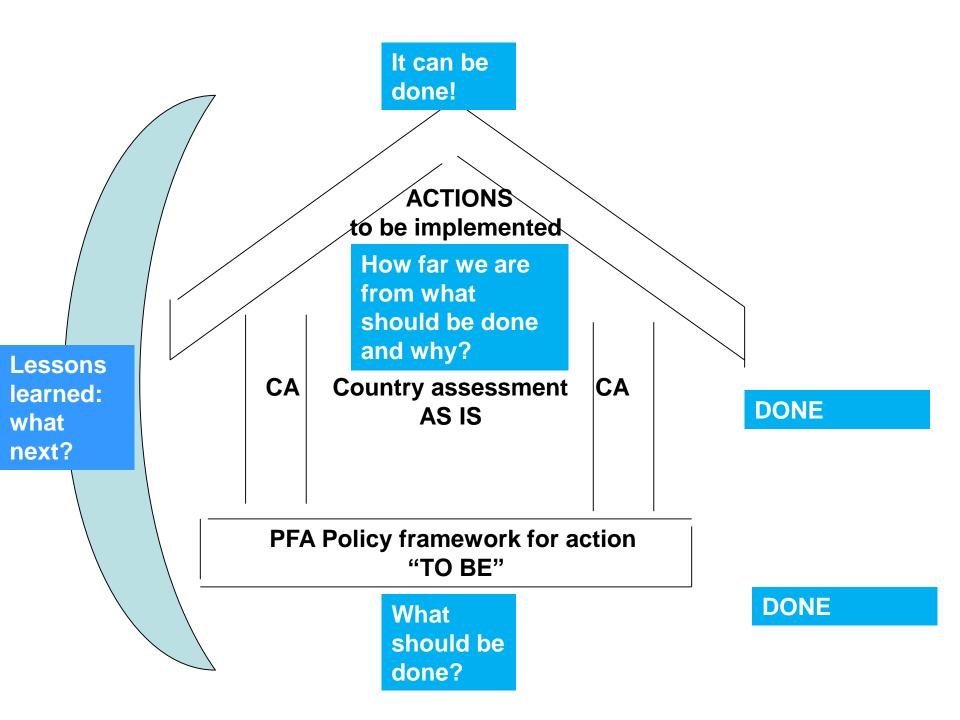
- -lack of integration btw more and less experienced countries
- -lack of integration btw EC inputs and member states

**EU review 2013** 



### Two main goals of JAHEE

- concrete actions (ACTION)
- better cooperation (JOINT)



### **JAHEE** frameworks in practice

IF

Are health inequalities our concern?

**WHAT** 

What actions should be done?

HOW

How to make them happen?

### **JAHEE** frameworks in practice

WP5 Monitoring

IF

Are health inequalities our concern?

WITHIN PROMISING SETTINGS
WP6 Healthy Environments
WP7 Immigration
WP8 Health system

(WP9 Health in All Policies)

WHAT

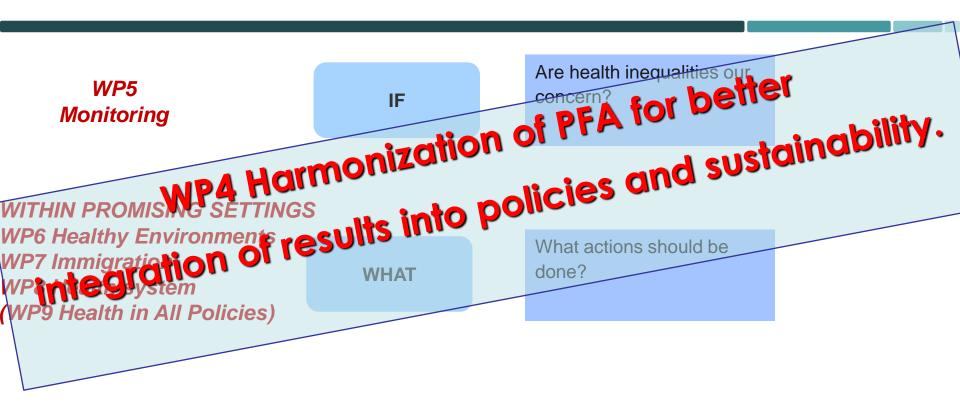
What actions should be done?

WP9 Governance in HiAP (WP6 Governance in municipality setting)

HOW

How to make them happen?

# JAHEE frameworks in practice



WP9 Governance in HiAP (WP6 Governance in municipality setting)

**HOW** 

How to make them happen?



### WP4

### Governance of health inequalities in Europe

- 1. Legal framework, strategies and policies to tackle HI/SDH (approaches, vertical level, targets, on HI)
- 2. Sustained policy commitment (agenda, mechanisms to protect commitment, funding)
- 3. Role and equity of the health system (access, health care, prevention, skills and resources on HI, advocacy)
- 4. Accountability on HI and on the SDH (who is responsible and how)
- 5. Active intersectoral working and health in all policies (institutions & experiences)
- Monitoring of system performance and evaluation (tools and report mechanisms on progress)
- 7. Communication, public engagement and community participation mechanisms which promote involvement of local people and stakeh.in problem definition and solution develop.



### Overall assessment of governance of HI

Bulgaria Croatia Estonia Grecia Romania Belgium
Czech Republic
France
Germany
Italy
Netherlands
Portugal
Serbia
Slovenia
Spain

Finland Norway Wales



### **General movement towards equity**

### Totally, 168 policies collected.

A clear inclusion of health and health inequalities is reported

	Z	Directly & explicitly aimed at tackling HI	HI are one of the objectives	HI are one of the outcomes	HI are considered	Indirectly on SDH	Not considered
equity from the start	24	25.0%	29.2%	4.2%	58.3%	33.3%	8.3%
education	18	22.2%	5.6%	16.7%	44.4%	50.0%	5.6%
employment	19	10.5%	21.1%	15.8%	47.4%	42.1%	10.5%
living conditions	23	21.7%	17.4%	8.7%	47.8%	34.8%	17.4%
social protection	26	23.1%	0.0%	23.1%	46.2%	38.5%	15.4%
empowerment	15	33.3%	6.7%	13.3%	53.3%	26.7%	20.0%
gender	19	26.3%	0.0%	5.3%	31.6%	57.9%	10.5%
immigrant	20	20.0%	10.0%	10.0%	40.0%	35.0%	25.0%



### Main characteristics of policies on SDH

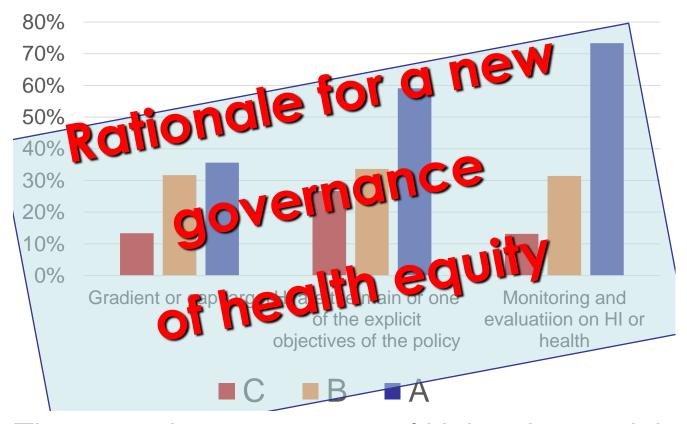
### A temporal comparison is difficult but:

- 1. Cross sectoral work has increased (51,4% to 65,6%) with an increase also in the average number of ministries involved
- 2. Increase also in the variety of ministries acting (for example policies acting on the contexts as transports, urban planning and environment from 24,2% to 34%)
- 3. Dimensions of vulnerability have increased (more than 2 from 34% to 50%)
- 4. Policies not evaluated or monitored or without equity assessments have decreased (from 52,2% to 40%)
- 5. Approaches on the social gradient seem to have increased (from 27% to 37%)
- 6. The same happens for policies directly aimed at tackling health inequalities



# Is there a relation among governance of HI and policies on SDH?

It seems to be associated with the advancement of policies....



The more the governance of HI is advanced the more policies and actions acting on the SDH are equity oriented

### SUM UP OF POLICY IMPLICATIONS

### PROVISIONAL FINAL RECOMMENDATIONS

IF

Equity lens when/wherever possible

Data collection covariates (social, migrat.)

Valid equity indicators (accountability)

Health equity in HiAP/SDG (on SDH/rights)

Health equity promotion on mediators

Health equity management in health systems

For priority setting/alloc. proport. universal.

For tailoring interventions: vulnerables

**HOW** 

**WHAT** 

Supporting structure and practice for intersectoral H(E)iAP

Particularly in municipal «umbrella» setting

Multilevel coherence

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# Examples of implementation actions in one country (Italy)

WP5 monitoring: AN INDIVIDUAL SOCIAL COVARIATE IN NHS REGISTRIES FOR SYSTEMATIC HEALTH EQUITY AUDIT

WP6 healthy living environments: HEA IN THE NEW NATIONAL PREVENTIVE STRATEGY (CAPACITY BUILDING)

WP7 immigration: CAPACITY BUILDING

WP8 health systems: LEGAL DUTY OF EQUITY IN THE MECHANISM OF ACCOUNTABILITY OF THE NHS, HEA IN NHS AND EQUITY MANAGEMENT

WP9 governance/HiAP: INTERMINISTERIAL TASK FORCE FOR HEALTH EQUITY IN ALL POLICIES (MINIMUM BASIC INCOME AND RETIREMENT AGE?)

### FOR MORE INFORMATION

FEAM (causality)

https://www.feam.eu/wp-

content/uploads/Health Inequalities Symposium ReportFINAL.pdf

LIFEPATH (biological mechanisms)

https://lifepath/project.eu/

WHO (entry points)

http://www.euro.who.int/en/HealthEquityStatusReport2019

JAHEE (policies)

https://jahee.iss.it

Chi lo sa se i tempi migliori lo sanno che li sto aspettando?





http://www.disuguaglianzedisalute.it/