JAHEE

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RIES IMPROVING CAPACITIES OF
RESPONSE TO HEALTH INEQUALITIES

WHEN THE PANDEMIC LANDED

ASSESSING THE IMPACTS AND LEARNING OF THE PANDEMIC IN TERMS OF HEALTH INEQUALITIES

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

Common sense on equity in the pandemic

- One of the ideas that took root most rapidly in public opinion, along with the spread of the Covid-19 epidemic, relies on the supposed "democratic nature" of the virus and on the perceived universality of the distance measures (“Dance macabre”)
- “Except for age and gender differences, all individuals would have the same probability of contracting the disease and therefore should share equally the cost of a collective isolation aimed at achieving a "common scope“
- In fact the empathy produced by the persuasion to share a same problem and a same objective may have had important benefits in the regulation of individuals and in the effectiveness on compliance to the political management of the emergency
- Several studies confirm the existence of a clear association between socioeconomic status and influenza pandemics, suggesting a tighter link with more severe outcomes like in the case of Covid-19 (Mamelund 2019)

From a HIIA tool to the HEA of the policy response to the pandemic

- A conceptual framework that organizes the set of plausible mechanisms generating the different social distribution of health consequences during pandemic diseases (Quinn 2014), focusing on both differential exposure and differential vulnerability and resilience
- Health Inequalities Impact Assessment (HIIA) as a screening tool for prioritization of avoidable mechanisms of health inequalities (Douglas 2020)
- Health Equity Audit (HEA) as a process of recalibration of policies towards a more favourable and equitable distribution of the impact of the pandemic after phase 1
  - Preventing resurgence at community level
  - Tracing and isolating cases and contacts
  - Treating adequately Covid-19 cases
  - Avoiding foregone care out of Covid-19 pathways
  - Limiting unintended social and economic consequences of the pandemic

Direct mechanisms

- Differential exposure to risk of infection
  - Lower awareness (adherence) of the hygienic and behavioural norms
  - Less space for distancing in overcrowed houses
  - Segregation in more deprived (and polluted) areas with more contacts
  - Segregation in occupations not eligible for smart working
  - Segregation in nursing homes
- Differential health vulnerability to Covid-19
  - Differential prevalence of chronic diseases more susceptible to both infections and unfavourable health outcomes (such as diabetes…)
  - Differential exposure to behavioural risk factors associated with Covid-19 (such as tobacco)
  - Differential distribution of relational skills and resources to cope with isolation
- Differential exposure to barriers in access and use of good quality health responses to Covid-19
  - Timely tracing and testing
  - Home, hospital and follow up care

Indirect mechanisms in the health sector

- Differential impact of foregone care (displacement of not Covid-19 care)
  - Emergency and hospital care for time dependent disorders
  - Elective surgery
  - Out patient care for early diagnosis
  - Follow up of chronic diseases
- Differential impact of less demand of health and social care support (different perception of risk and anxiety caused by the pandemic)

Indirect mechanisms out of the health sector

- Differential impact of the lockdown on social determinants of health
  - More unemployment and job insecurity
  - Less income and increase in the share of the population at risk of poverty
  - More individuals unable to face basic needs at risk to fall in (legal and illegal) debt
- Differential capacities to face challenges and opportunities of isolation
  - Overcrowding
  - Less technological communication resources
  - Less control over unhealthy behaviours (such as poor diet and physical inactivity)
  - Less parenting skills towards children (reading aptitude or experimentation with new lifestyles)
  - More suffering from segregation in homes with less compensatory resources (dangerous behaviours such as family and gender violence)

Indirect mechanisms out of the health sector

- Differential impact on opportunities for education due to schools lock-down
  - Less families equipped for online education (absence of connections and devices or too many children in the same household)
  - Less families with adequate skills to accompany their children in the completion of lessons and homework
  - Segregation in poorer geographical areas with less skilled and equipped teachers and school
  - Less peer meetings and educational projects available in the school setting needed for relational and cognitive skills
  - Less school lunch, the main healthy meal of the day for children of poor families
- Differential impact of lock-down at the community level
  - More limited networks of proximity and family support often counterbalancing the shortcomings of national welfare
  - New opportunities for reciprocity (networks of help between condominiums and neighbours), possibly favouring the less disadvantaged micro contexts?

Indirect mechanisms out of the health sector

- Differential impact of lock-down on social care
  - More unfavourable consequences of the stop or slowdown of the social care implemented in the local communities (public services, third sector and voluntary sector)
  - Special impact on vulnerable and fragile groups (disabled, elderly with severe functional limitations and multiple chronic diseases, drug addicts, homeless, undocumented migrants, minors in foster care, people in transition)
- Differential impact on social mobility of the experience of disease during the pandemic
  - Barriers to employment in precarious jobs due to quarantine
  - Social consequences of chronic functional limitations due to Covid-19 (pulmonary fibrosis post pneumonia)

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Ministero della Salute

Healing the pandemic by returning to more equal health

The pandemic under the lens of equity: Where did the virus land?

Is the pandemic widening the social gap in mortality?

Are contagion and infection unequal?

Is access to tests unequal?

Is the frequency of positive testing unequal?

Are hospitalizations for COVID-19 unequal?

Are ICU admissions unequal?

Is mortality in COVID-19 unequal?

Is the coexistence of chronic diseases among the victims of COVID-19 unequal?

In conclusion: can access to treatment for COVID-19 be said to be unequal?

And is access to non-COVID-19 treatments unequal?

Are the perception of risk and the impact on the emotional state unequal?

Is access to prevention measures for COVID-19 unequal?

Are unhealthy behaviors unequal?

Are the environmental risks unequal36

Is the risk of impoverishment unequal?

Are the risks of isolation and loneliness and help networks unequal?

Is the impoverishment of educational opportunities unequal?

Has descending social mobility worsened unevenly?

Piedmont / Inequalities in COVID-19

Poisson regression models with a robust error variance, by sex and age (35-64; 65+), adjusted for age

	MEN			WOMEN		
	Swab tests	Positivity	Mort C19	Swab tests	Positivity	Mort C19
0 social disadv.	1.00	1.00	1.00	1.00	1.00	1.00
1 social disadv.	1.01	0.91	1.44	1.00	0.91	0.65
2 social disadv.	**1.12**	**0.87**	**1.83**	**1.12**	**0.87**	1.53
3 o 4 social disadv.	**1.19**	1.10	1.58	**1.19**	1.10	**1.65**
RII	**1.20**	0.92	**2.11**	**1.20**	0.92	**1.81**

		MEN			WOMEN		
		Swab tests	Positivity	Mort C19	Swab tests	Positivity	Mort C19
>65 Years Old	0 social disadv.	1.00	1.00	1.00	1.00	1.00	1.00
	1 social disadv.	**1.20**	**1.12**	1.13	**1.21**	**1.23**	**1.23**
	2 social disadv.	**1.54**	**1.37**	**1.53**	**1.45**	**1.52**	**1.59**
	3 o 4 social disadv.	**1.78**	**1.89**	**1.79**	**1.63**	**1.79**	**1.94**
	RII	**1.82**	**1.62**	**1.78**	**1.69**	**1.84**	**2.00**

Inequalities raise if we move to severe outcomes as these are clear expression of inequities in the distribution of underlying risk factors

Occupational bias among adult men probably as even less disadvantaged groups continued working

Good correspondence between access to swab tests and positivity rate in elderly and adult women. Relevant inequalities

Strong inequalities in COVID mortality. They reflect inequalities in positivity rate

Piedmont/ Equity of health care system

Higher hospitalizations among elderly, with relevant gender inequalities

		MEN			WOMEN		
	out of +		40.2%	12		18.1%	4.2%
		Posit	Hospit	I	Posit	Hospit	ICU
35-64 years old	0 social disadv.	1.00	1.00	1	1.00	1.00	1.00
	1 social disadv.	0.91	1.11	1	1.22	1.23	2.19
	2 social disadv.	0.87	1.11	1	1.43	1.53	3.78
	3-4 soc. disadv.	1.10	1.55	1	1.66	1.92	2.25
	RII	0.92	1.37	1.5	1.78	2.04	4.71
	RII adj for comorb	0.87	1.25	1.36	1.69	1.75	3.85
	out of +		61.5%	13.8%		34.4%	4.3%
		Posit	Hospit	ICU	Posit	Hospit	ICU
>=65	0 social disadv.	1.00	1.00	1.00	1.00	1.00	1.00
	1 social disadv.	1.12	1.11	0.89	1.23	1.10	0.91
	2 social disadv.	1.37	1.35	1.16	1.52	1.19	1.34
	3-4 soc. disadv.	1.89	1.91	1.53	1.79	1.60	0.79
	RII	1.62	1.60	1.15	1.84	1.49	1.22
	RII adj for comorb	1.45	1.45	1.05	1.69	1.34	1.04

Emerging and growing inequalities among adult men and women

Inequalities in comorbosities explain only a third of inequalities

Socioeconomic position selection bias?

Access to ICU is relatively more frequent among working aged people. Selection by age?
While increasing inequalities emerge among adults and especially women, they disappear among older people, even before adjustment for comorbidities.

Piedmont/ Equity of health care system

MEN				
Out of hospit			31.3%	11.7%
Posit	Hospit	ICU	ICU/rec	Mor/rec
	1.00	1.00	1.00	1.00
	1.11	1.06	0.95	1.07
	1.11	1.19	1.05	1.33
			1.07	1.05
			1.09	1.31
			1.11	0.93
			22.4%	46.1%
			ICU/rec	Mort/ric
			1.00	1.00
			0.81	0.96
			0.91	1.04
			0.91	0.96
			0.80	1.00
RR adj for comor	1.45	1.45	1.05	0.81	0.96

WOMEN				
Out of hospit			23.1%	7.1%
Posit	Hospit	ICU	ICU/rec	Mor/rec
1.00	1.00	1.00	1.00	1.00
1.22	1.23	2.19	1.78	0.78
1.43	1.53	3.78	2.48	2.51
1.66	1.92	2.25	1.17	2.05
1.78	2.04	4.71	2.08	4.47
1.69	1.75	3.85	2.05	4.37
Su +:	34.5%	4.3%	12.5%	39.0%
Posit	Hospit	ICU	ICU/rec	Mor/ric
1.00	1.00	1.00	1.00	1.00
1.23	1.10	0.91	0.82	1.11
1.52	1.19	1.34	1.07	1.21
1.79	1.60	0.79	0.49	1.08
1.84	1.49	1.22	0.86	1.22
1.69	1.34	1.04	0.83	1.19

Nevertheless, in-hospital mortality seems to deny the presence of different access to therapy and prove health system equity.
Protection could depend on different capacity of home or out-of-hospital care, especially in contexts with low SES.

Landed on unequal epidemic of chronic diseases

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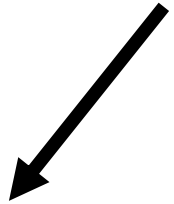
Unequal exposure to infection and equal access to test
+



Landed on unequal epidemic of chronic diseases
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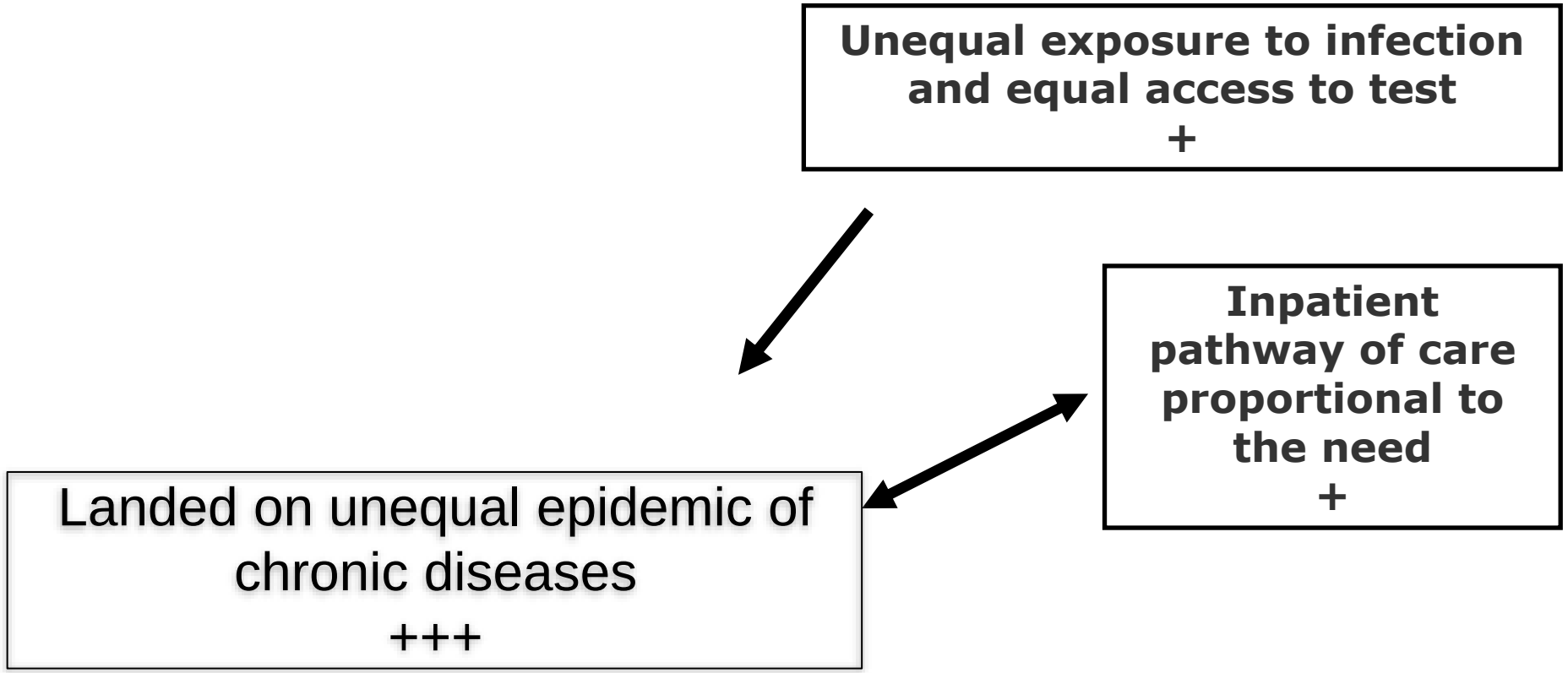
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Inpatient pathway of care proportional to the need
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Landed on unequal epidemic of chronic diseases
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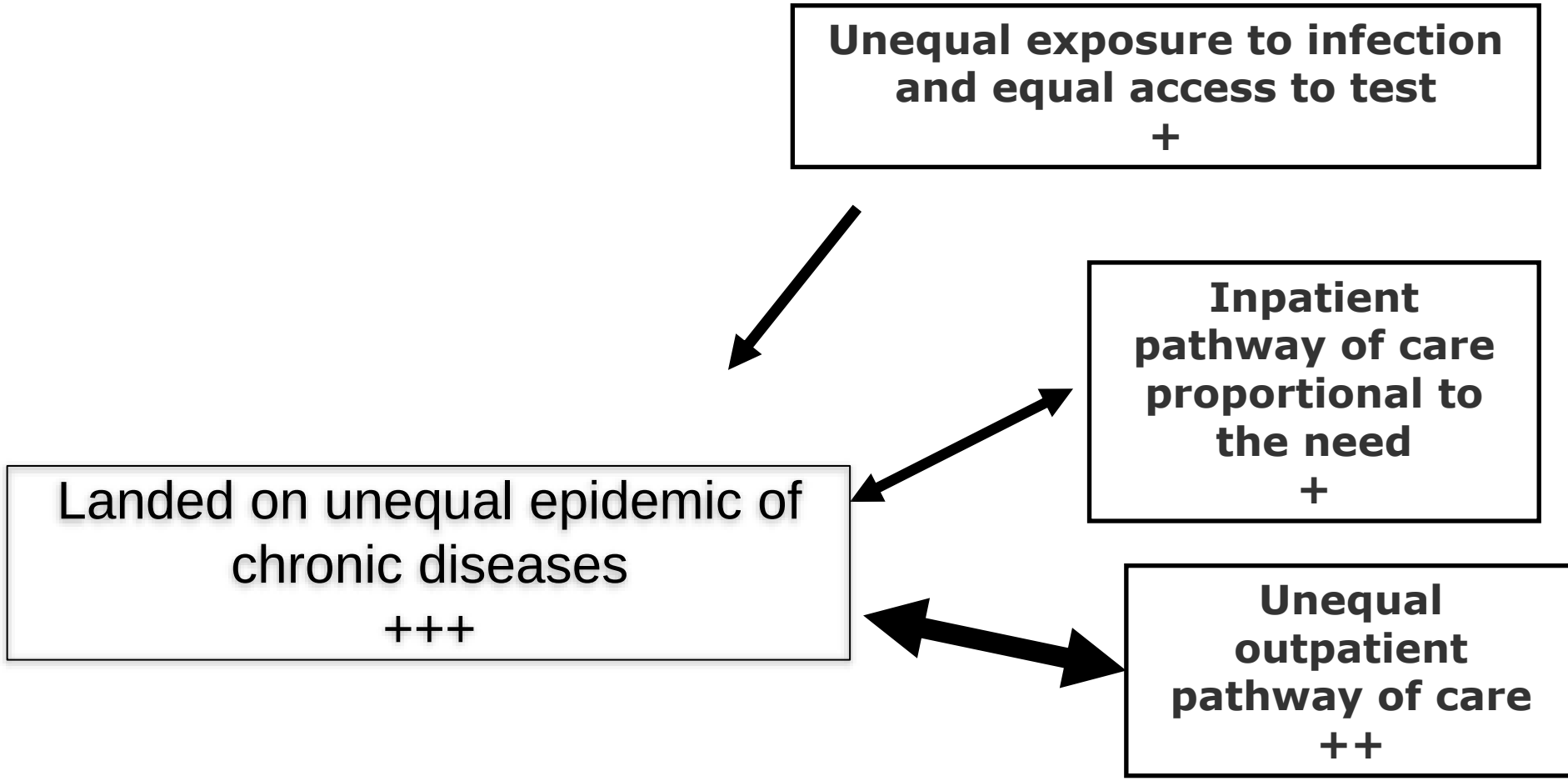
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Landed on unequal epidemic of chronic diseases
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Unequal outpatient pathway of care
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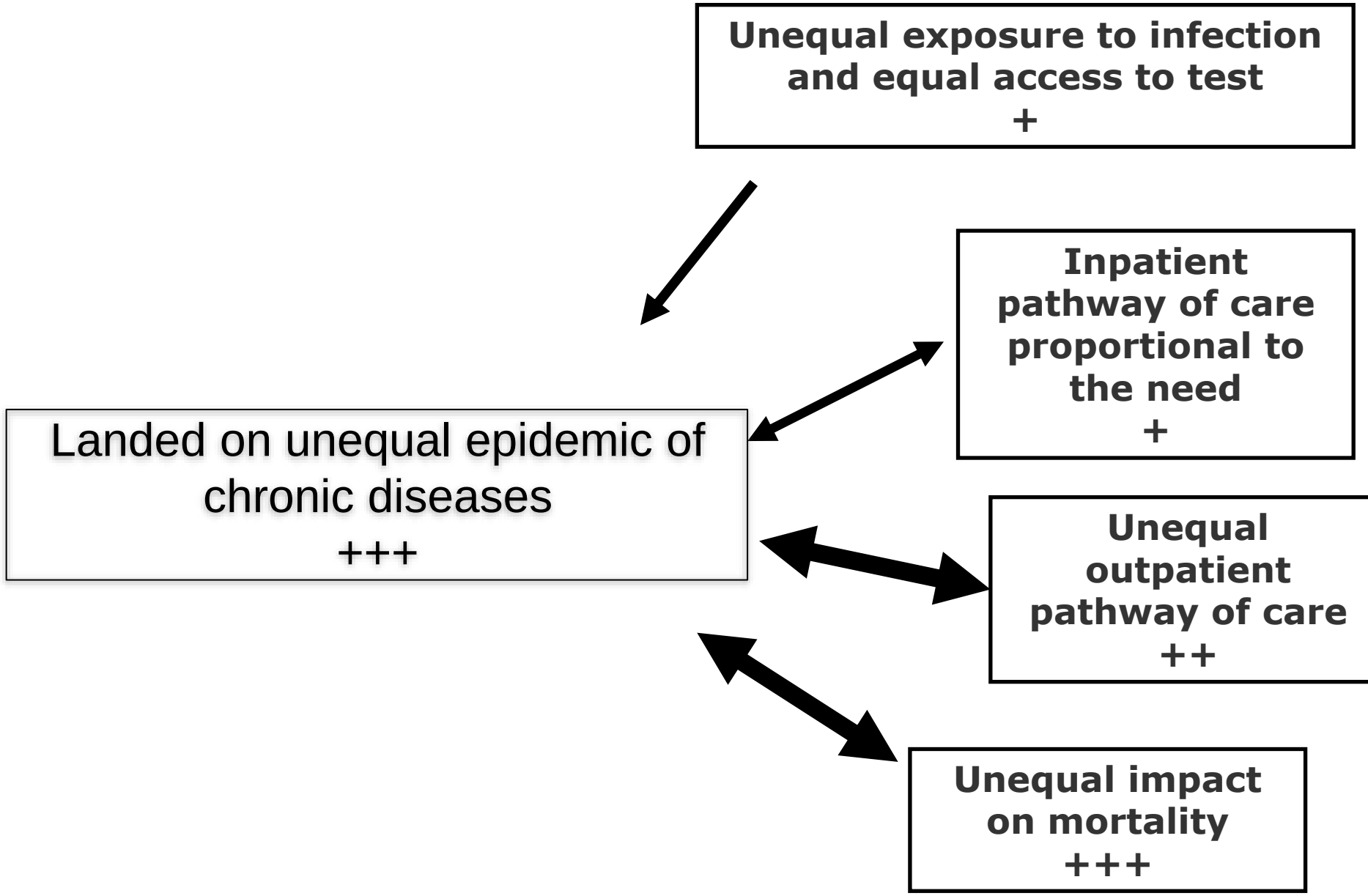
Unequal exposure to infection and equal access to test
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Unequal outpatient pathway of care
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Unequal impact on mortality
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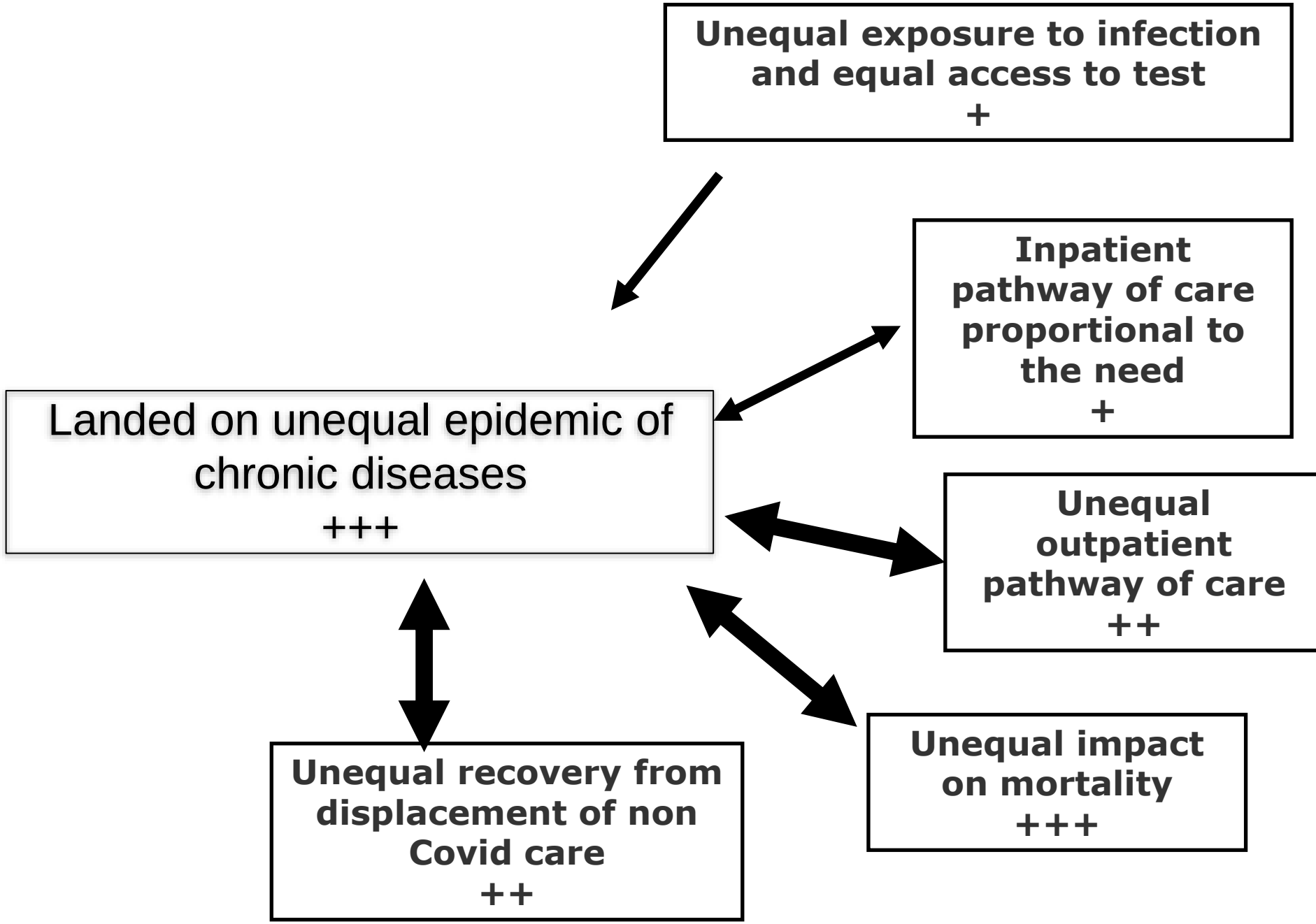
Unequal exposure to infection and equal access to test
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Inpatient pathway of care proportional to the need
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Landed on unequal epidemic of chronic diseases
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Unequal outpatient pathway of care
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Unequal recovery from displacement of non Covid care
++
Unequal impact on mortality
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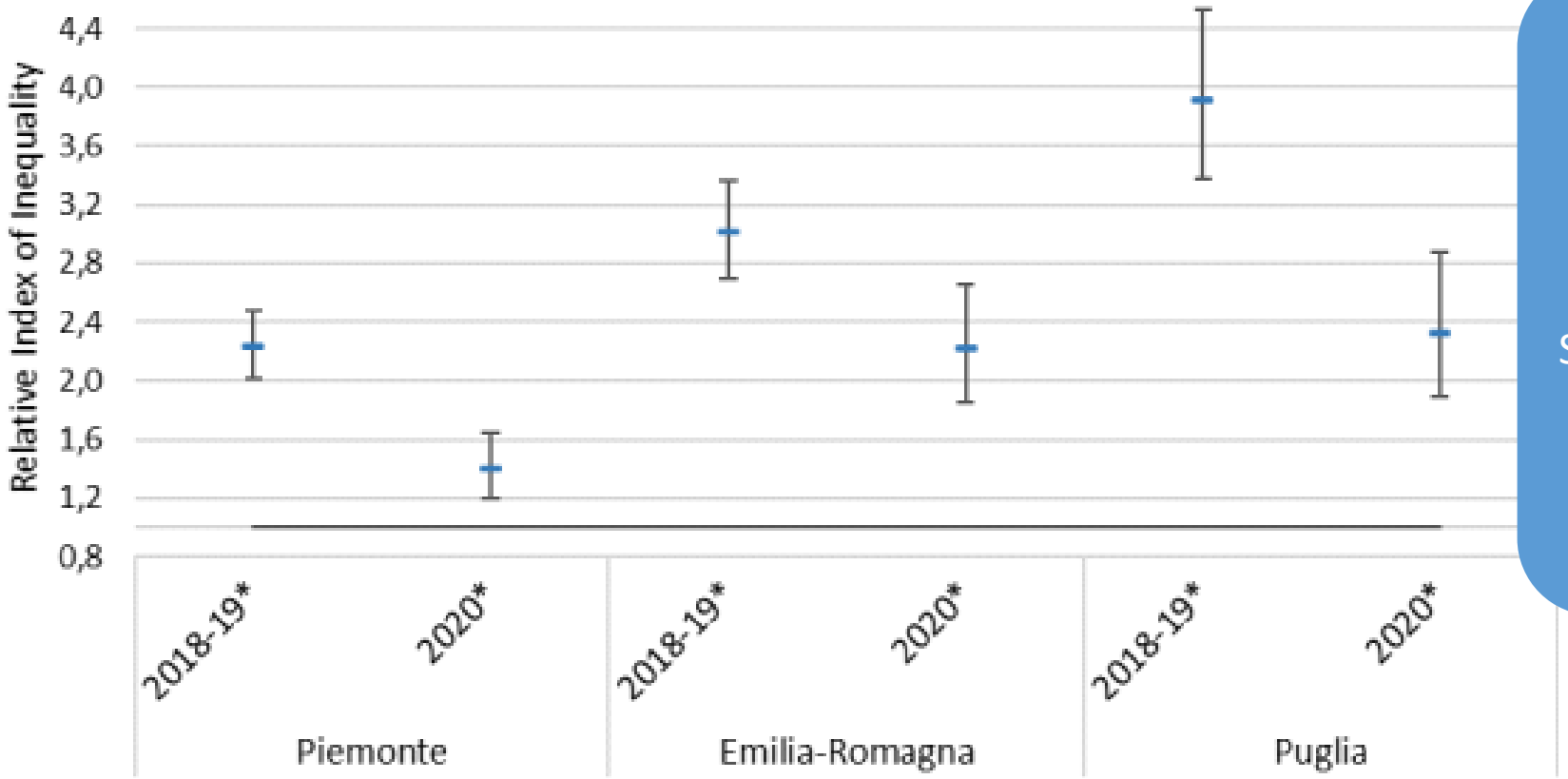
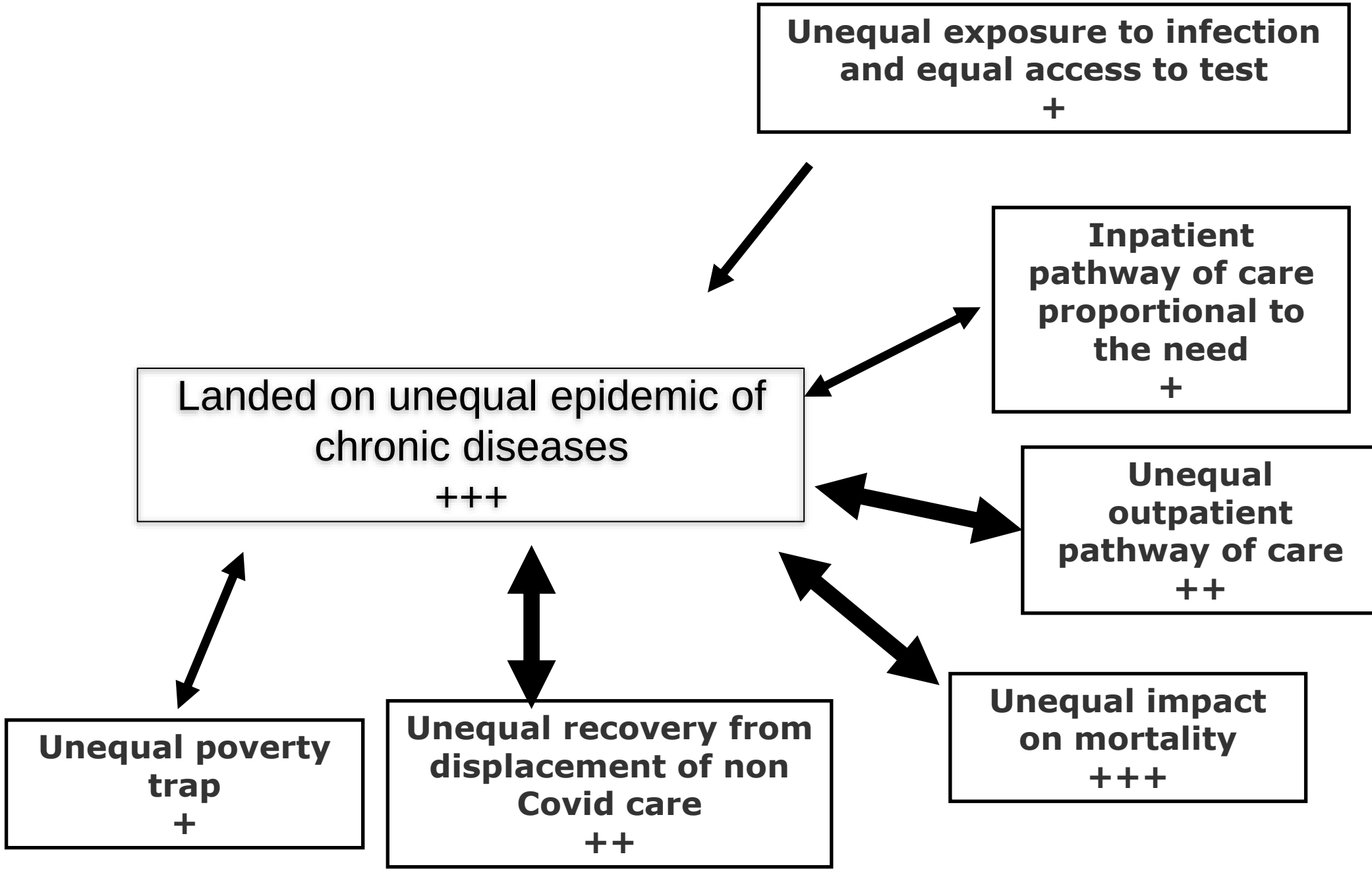
Unequal recovery from displacement of non Covid care

Knee prosthesis surgery by education during the first wave of the pandemic in three regions (N-C-S)



More use (higher needs) among the less educated before pandemic

Same needs less use among the less educated in the pandemic


Unequal exposure to infection and equal access to test
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Inpatient pathway of care proportional to the need
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Landed on unequal epidemic of chronic diseases
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Unequal outpatient pathway of care
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Unequal poverty trap
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Unequal recovery from displacement of non Covid care
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Unequal impact on mortality
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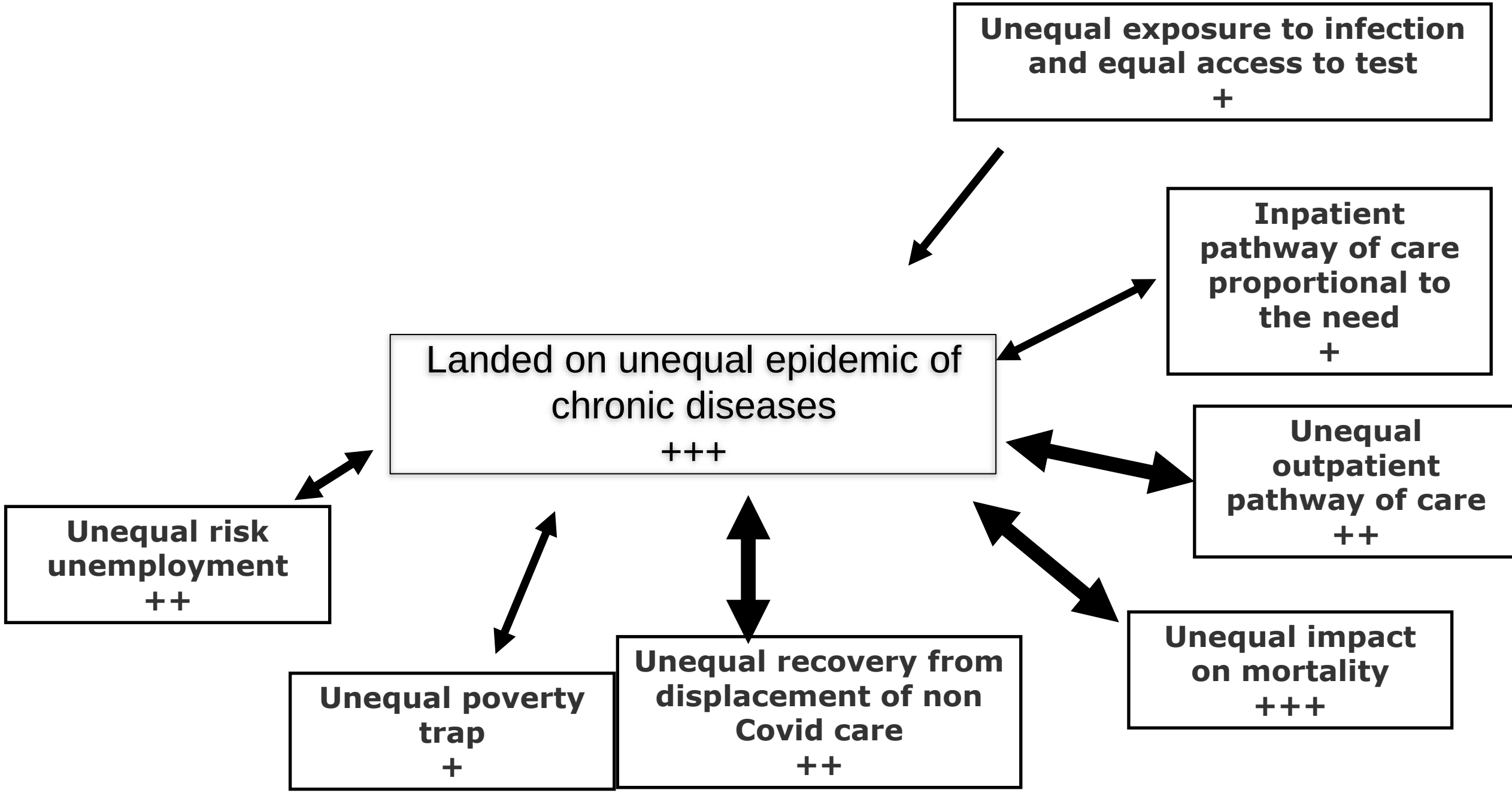
Unequal exposure to infection and equal access to test
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Inpatient pathway of care proportional to the need
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Landed on unequal epidemic of chronic diseases
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Unequal outpatient pathway of care
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Unequal risk unemployment
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Unequal impact on mortality
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Unequal poverty trap
+
Unequal recovery from displacement of non Covid care
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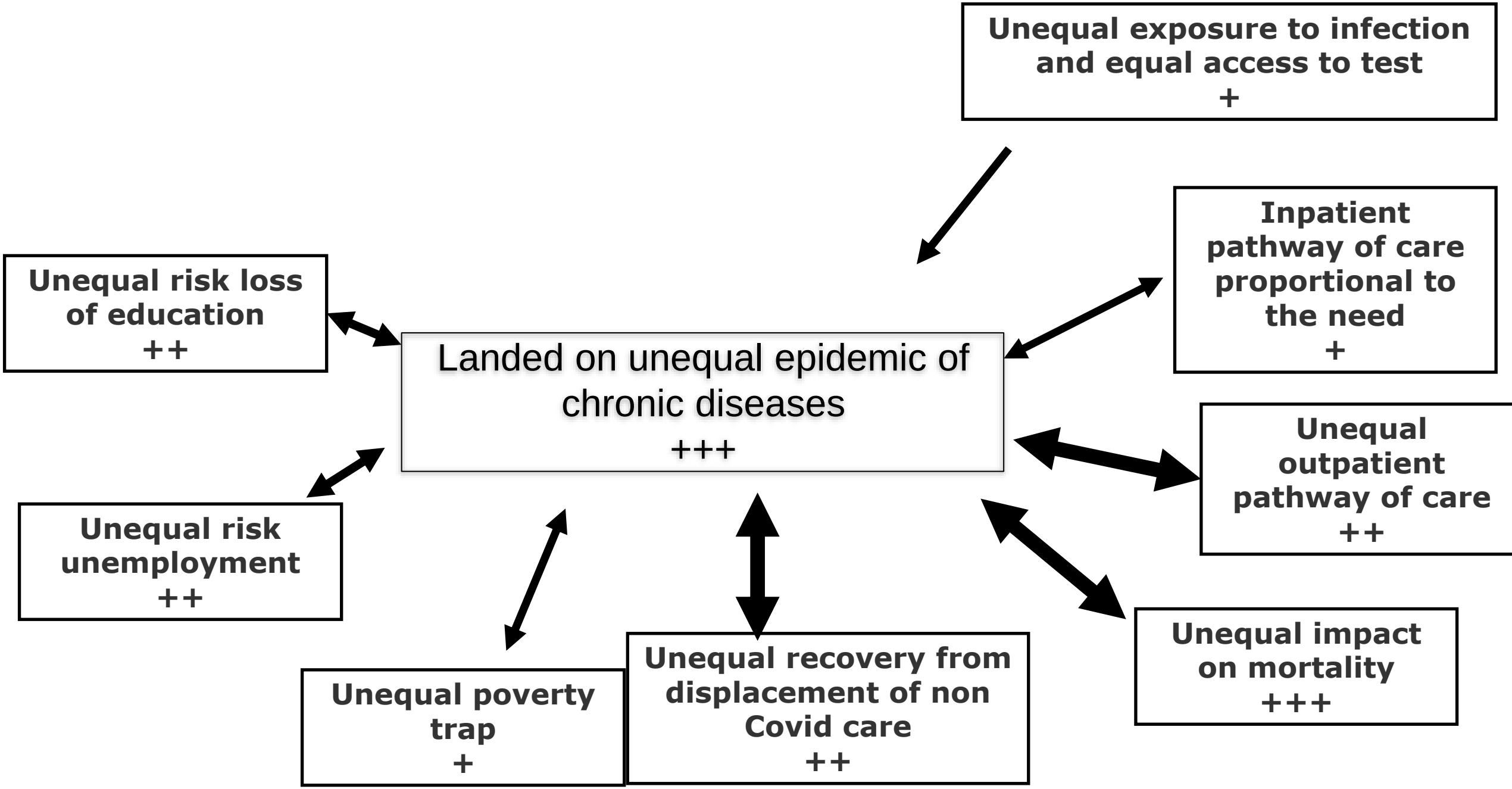
Unequal exposure to infection and equal access to test
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Inpatient pathway of care proportional to the need
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Unequal risk loss of education
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Unequal recovery from displacement of non Covid care
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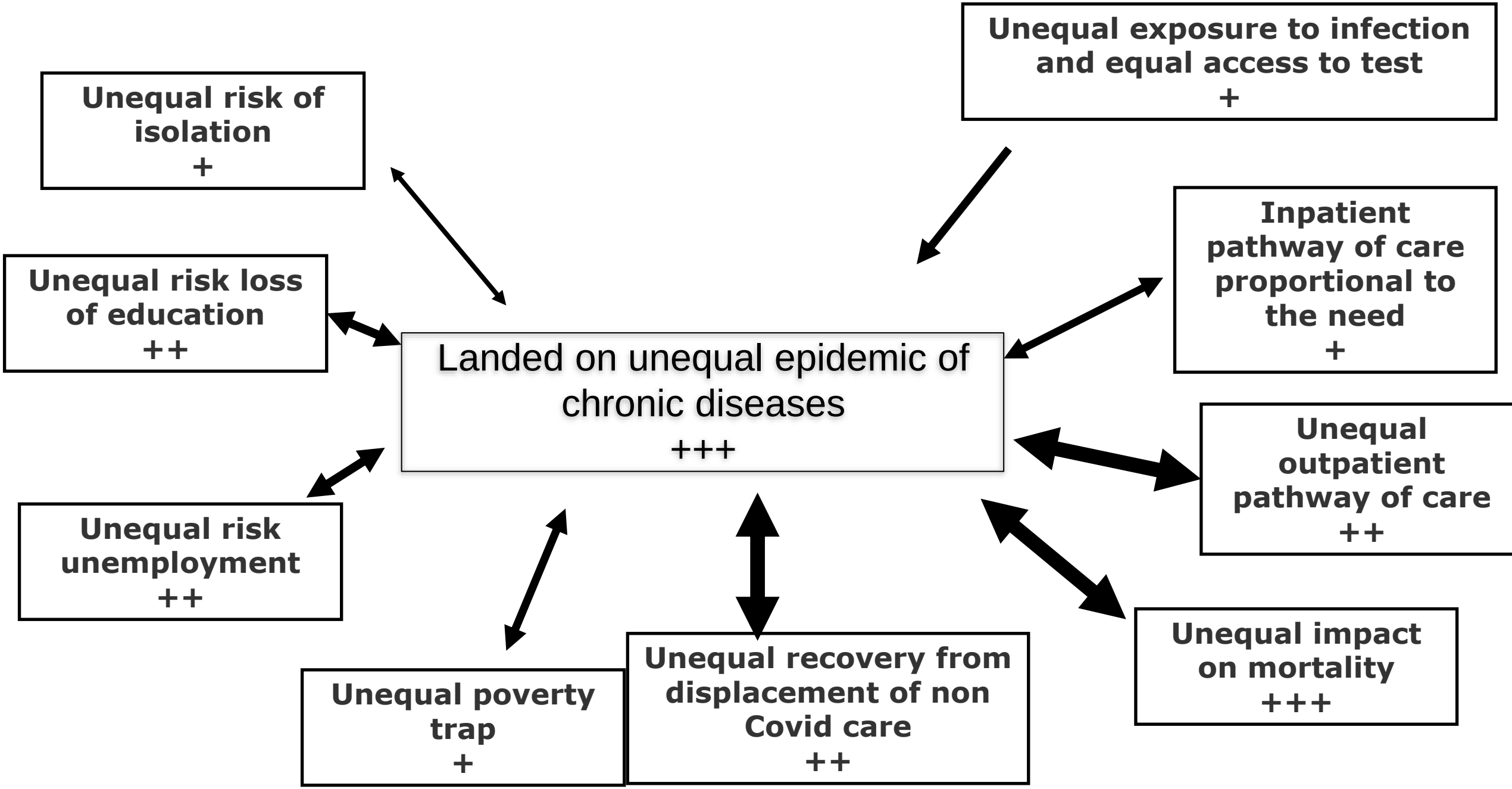
Unequal exposure to infection and equal access to test
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Unequal risk of isolation
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Inpatient pathway of care proportional to the need
+
Unequal risk loss of education
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Landed on unequal epidemic of chronic diseases
+++
Unequal outpatient pathway of care
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Unequal risk unemployment
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Unequal impact on mortality
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Unequal poverty trap
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Unequal recovery from displacement of non Covid care
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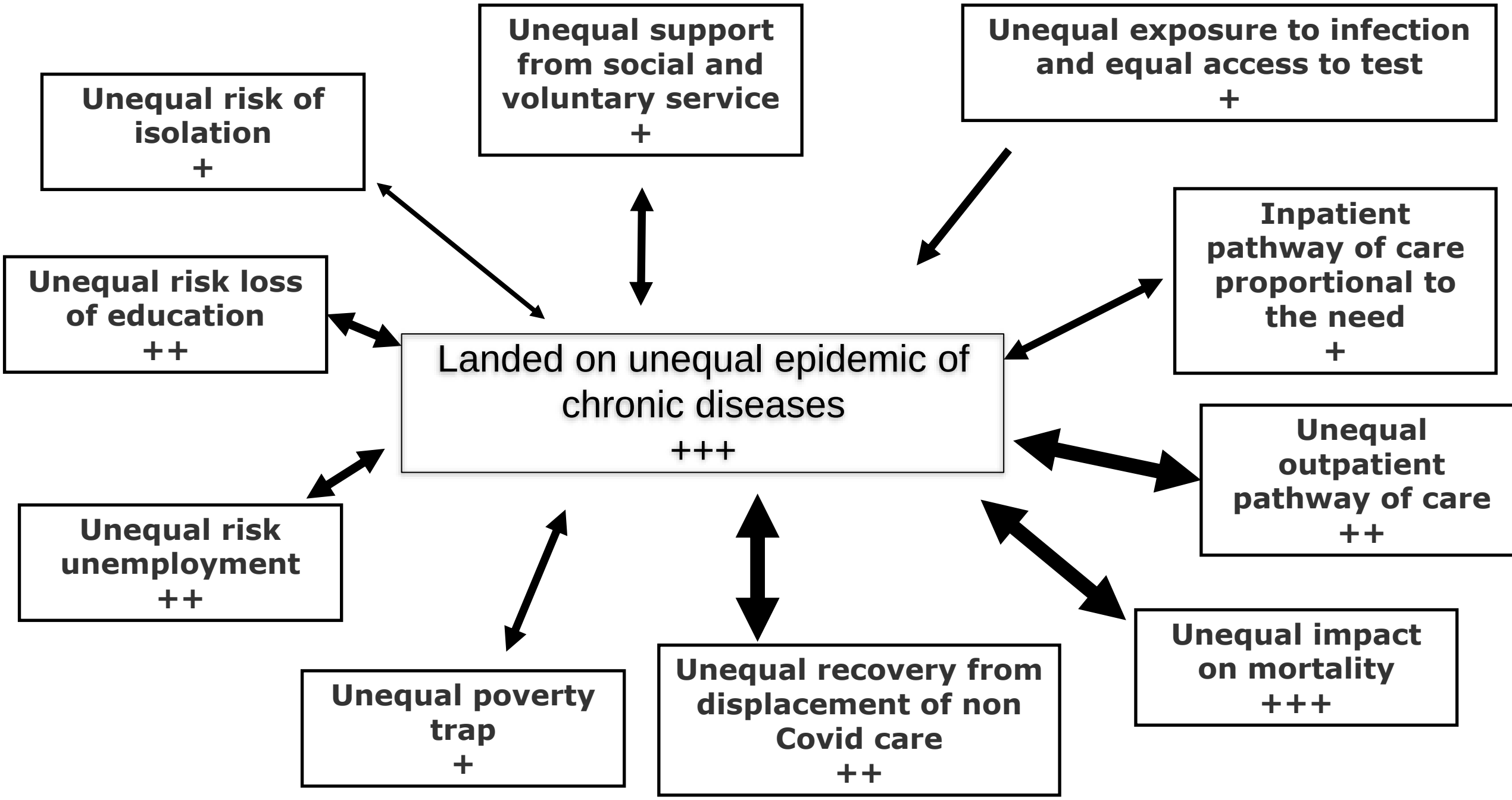
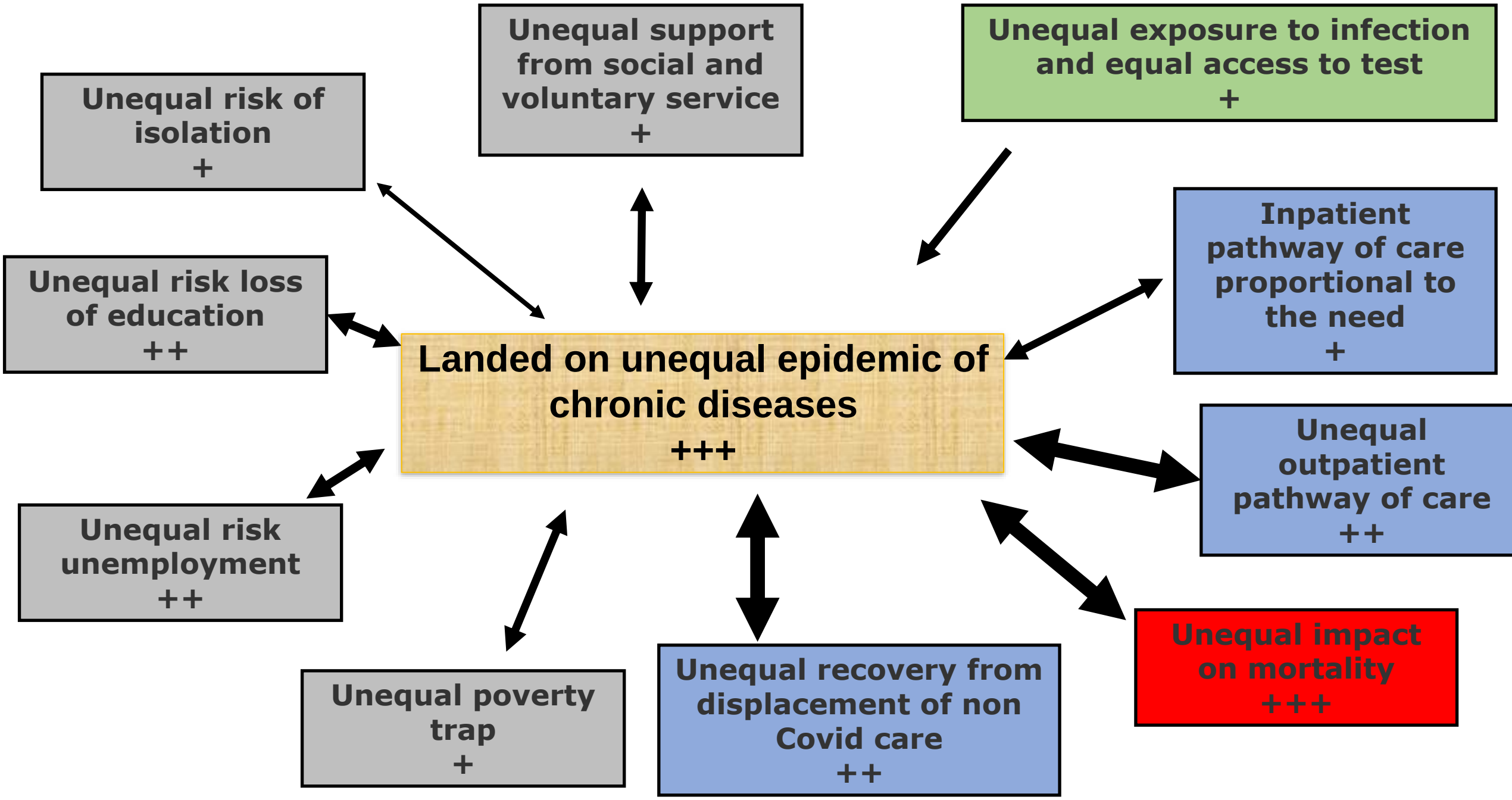

Unequal support from social and voluntary service +
Unequal exposure to infection and equal access to test +
Unequal risk of isolation +
Inpatient pathway of care proportional to the need +
Unequal risk loss of education ++
Landed on unequal epidemic of chronic diseases +++
Unequal outpatient pathway of care ++
Unequal risk unemployment ++
Unequal impact on mortality +++
Unequal poverty trap +
Unequal recovery from displacement of non Covid care ++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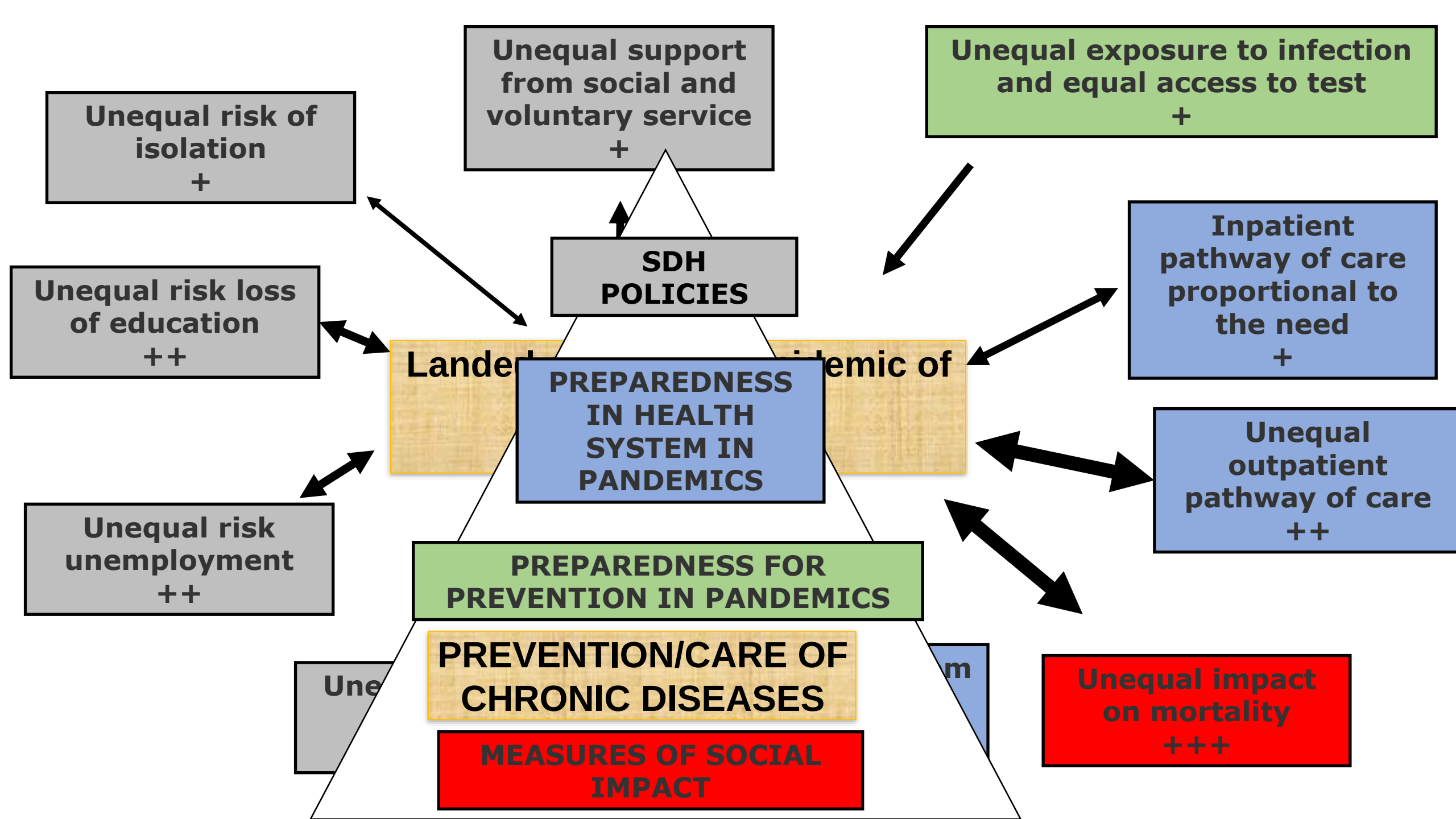
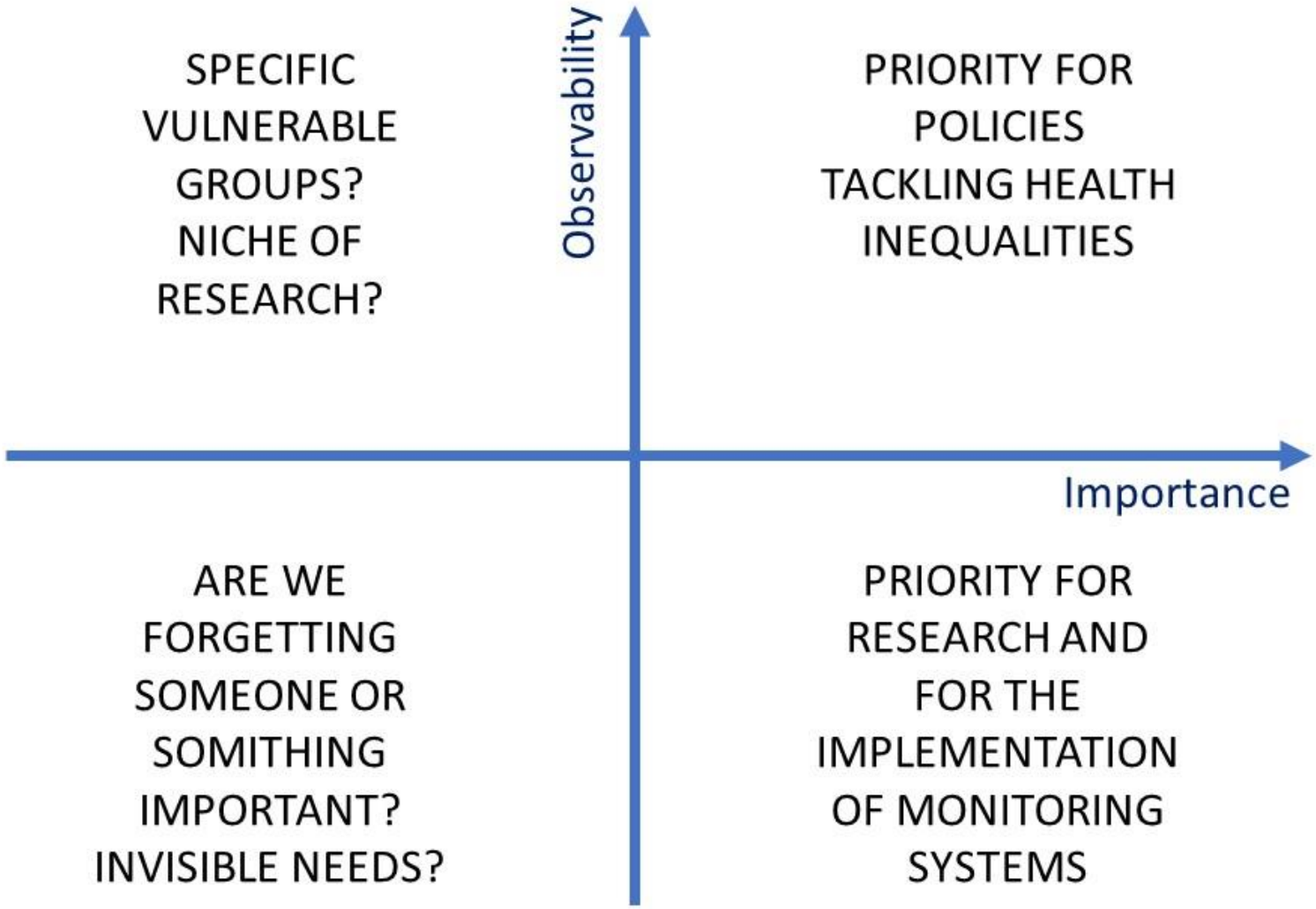
Unequal risk of isolation +
Inpatient pathway of care proportional to the need +
Unequal risk loss of education ++
Landed on unequal epidemic of chronic diseases +++
Unequal outpatient pathway of care ++
Unequal risk unemployment ++
Unequal impact on mortality +++
Unequal poverty trap +
Unequal recovery from displacement of non Covid care ++


Unequal support from social and voluntary service +
Unequal exposure to infection and equal access to test +
Unequal risk of isolation +
SDH POLICIES
Inpatient pathway of care proportional to the need +
Unequal risk loss of education ++
PREPAREDNESS IN HEALTH SYSTEM IN PANDEMICS
Unequal outpatient pathway of care ++
Unequal risk unemployment ++
PREPAREDNESS FOR PREVENTION IN PANDEMICS
PREVENTION/CARE OF CHRONIC DISEASES
MEASURES OF SOCIAL IMPACT
Unequal impact on mortality +++

Implications for setting policy and research priorities



COVID19 the Otherfrontline

Global voices for social justice

Focuses on millions of people around the world who bore the brunt of poverty and inequality before COVID-19

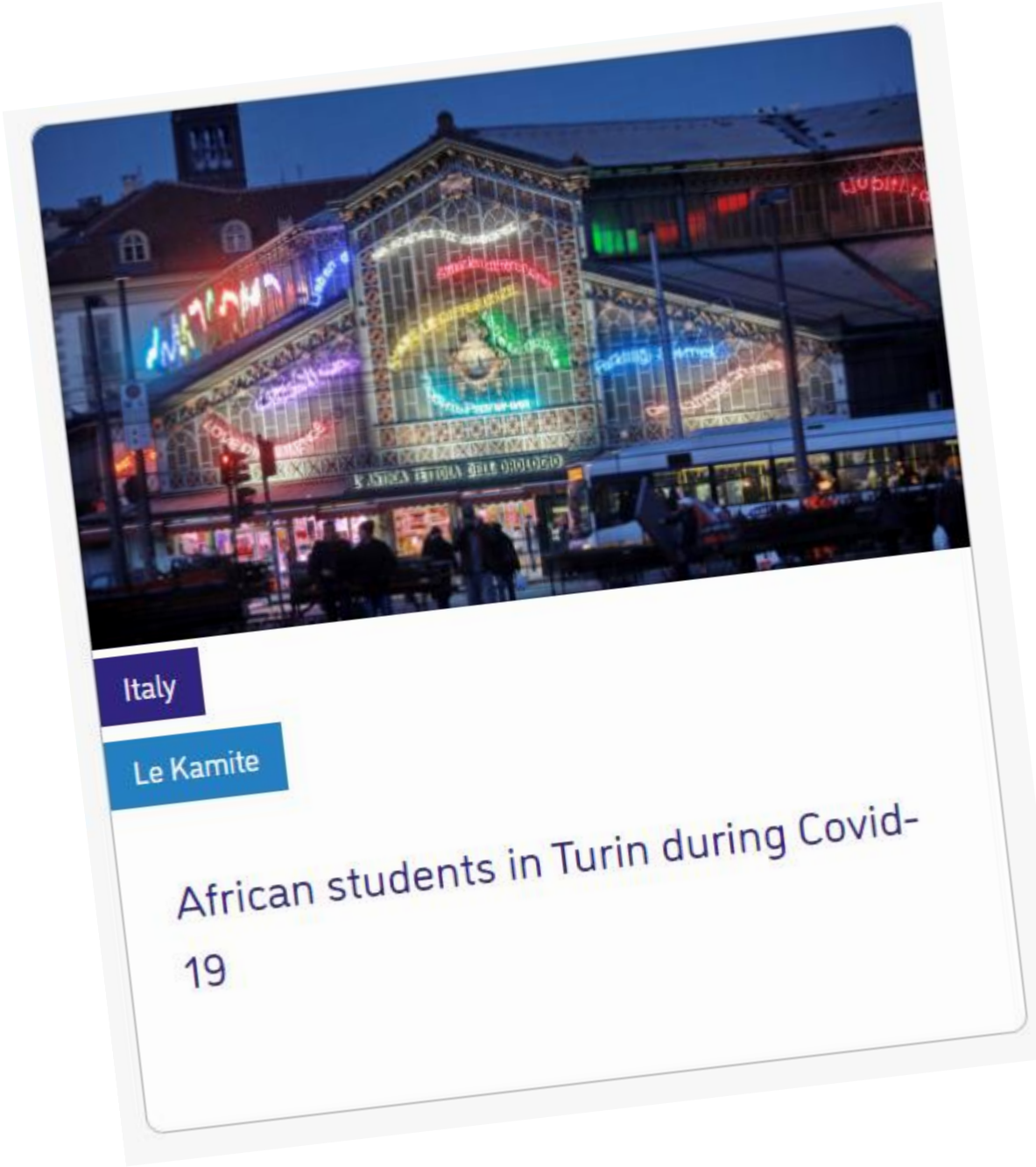
There is a need for their knowledge and experience to be centre stage and for them to tell their stories in their own way.

COFL journalist/bloggers drawn from the groups and communities already hardest hit
Working with a co-journalist from organisations in the COFL network. To ensure confidentiality they do not use their own names.

Documenting how the pandemic is changing the lives of people and communities
Stories of risk, solidarity and resistance include written letters/blogs; images (videos, vlogs); audio reports and photographs or artwork

There are 58 stories on the website (includes 17 introductory stories).

https://www.otherfrontline.org/



My story, like that of many other friends…

After finishing my course of study, despite my efforts, I was unable to find a stable position. Always precarious jobs, with fixed-term contracts. For some time I also worked as a welder in a mechanical workshop in Turin. I learned the job when I was a boy, from my father in Cameroon.

I was also sent to work in France because I know the language well. But always with fixed-term, underpaid contracts. If I protested, my boss would say to me: "*Look, Kamite, these are the contracts for your job and also the salaries… you don't have to complain. If you don't want to, there are many others like you who are willing to work for less*". In the end I left.

Surely the fact of being a foreigner, with temporary residence permits does not help. Here in Italy it is very complicated to have citizenship. In addition to long periods of time, you have to prove that you have sufficient income to support yourself and your family.

To foreign students, when we meet, I always say: "*You know you have a great opportunity, you can't waste it. To come here to study, your family makes sacrifices, you have to try hard, because it is not easy*".

Care must be taken not to lose your scholarship. Sometimes it's true, the money from the scholarship is not enough, so you start looking for a job, to make ends meet, and you neglect your studies. Then it's a cascade effect: you lose your scholarship, you try to work even harder and you are late for exams. Then you lose university accommodation, if you were entitled to it, and you have to look for accommodation with other students, but the costs increase. Finally, if you are no longer able to follow your studies, you lose your residence permit. […]

What the children think

Marco and Sara talk of their experience of the confinement from COVID-19 in 2020. The twins' parents are of Albanian origin, and arrived in Turin in the 1990s.

Marco, 11 years old

We are twins, but nobody believes us. I, Marco am a little smaller and more delicate than my sister Sara. I dress as a 10-year-old boy (!!!) … my sister when she grows up, she wears my mother's shoes. How ugly and heartbreaking when they told us we couldn't go to school! During the covid we were locked in the house with no chance to go to school. My parents were very worried, because both of them had lost their jobs, so we had a lot of trouble getting on.

"Daddy I'm worried about you! Watch out for work" but after a few days daddy went home too… one day, two, three and I said to Sara *"Daddy is sad".* You know he doesn't work and mum's at home too!

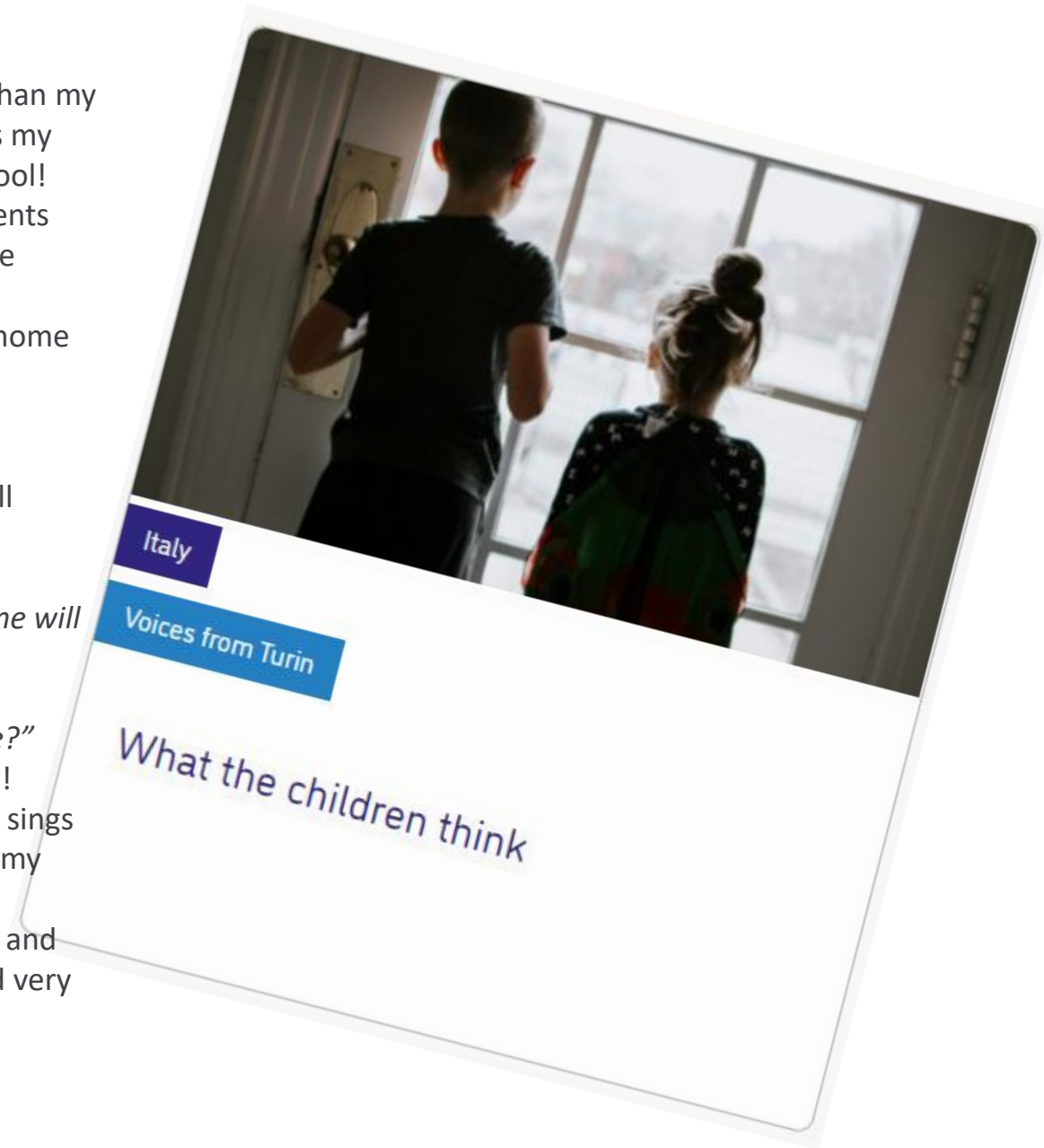
At the end of March the video lessons started and I did my best to get good grades.

For our birthday we won't be able to have a party if we are at home alone, nobody will remember the 15th of May! Three times a week we connect with the class and the teachers…

"Mom, do we have to make the connection this morning too? It's our party! And no one will wish us good luck like other years!" "Patience Marco, you know we have to defeat the coronavirus!"

The teacher greets everyone, she calls us all! Then he says again *"Marco are you there?" "Yes, here I am, Teacher"*, my heart is beating, I haven't studied as much if you ask me! *"Marco, we want to congratulate you, today is your birthday!"* And so the whole class sings "TANTI AUGURI" and claps their hands! I was moved. How did the teacher remember my birthday? It was a big surprise that I didn't expect.

After all those video lessons and at the end of the school year I met with the teachers and classmates for the last time, we had fun and played. It was a very hard experience and very different from what I imagined. […]



JAHEE-WHO/Euro survey on COVID impact on health inequalities

Survey submitted in September 2020 to 24 European countries participating in JAHEE to explore:

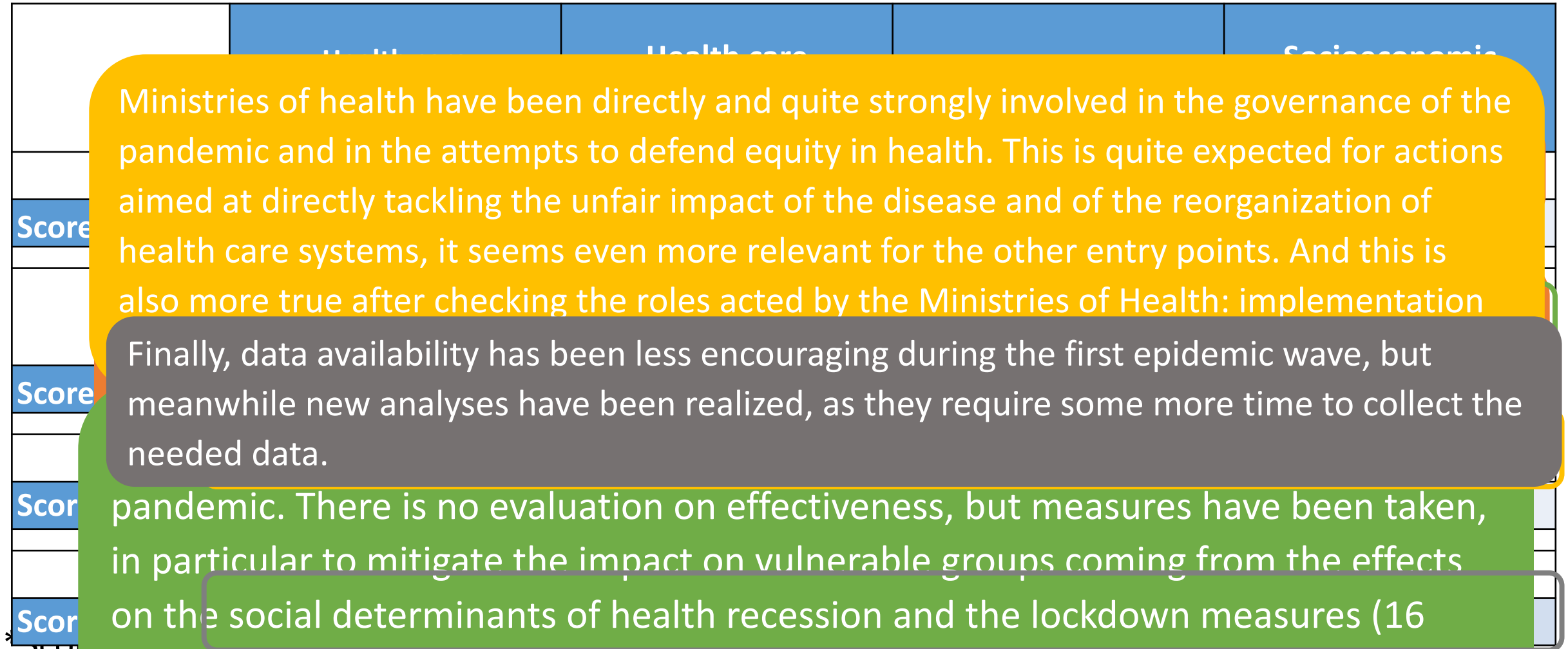
1. **Inequalities related to the impact of COVID-19 disease**
2. **Inequalities related to NOT COVID-19 health impact of the pandemic**
3. **Inequalities due to the physical and mental health impact of social distancing measures**
4. **Current and potential future inequalities because of social distancing measures acting on the distribution of the social determinants of health**

For each of these entry points survey aimed:

- to evaluate how the specific entry point has been put in the political agenda;
- if mitigation policies have been implemented to address inequalities;
- whether the Ministry of Health has been involved in this process and with which role they had;
- and, finally, if data to evaluate these potential effects on inequalities are available in their country.

JAHEE-WHO/Euro survey on COVID impact

Overall European response to equity challenges



JAHEE-WHO/Euro survey on COVID impact

Country specific responses to equity challenges

Countries with better reaction are the ones where HI have been included since a while in the national political agendas (Wales, Sweden, Netherlands) or that have done recent steps in the governance of inequalities (as Spain and Croatia).
On the other side, Czech Republic, Greece, Bosnia and Slovakia are the countries with the least reactive approach to reduce the unfair impact of COVID-19 pandemic

Country	Agg without Belgium	Agenda				Actions implemented				Role of the MoH			
		COVID (1-5)	Not COVID (1-5)	Isolation (1-5)	SDH (1-5)	COVID (1-5)	Not COVID (1-5)	Isolation (1-5)	SDH (1-5)	COVID (1-3)	Not COVID (1-3)	Isolation (1-3)	SDH (1-3)
Bosnia	47.1%	3	3	3	3	3	3	3	3	2	2	2	Nd
Bulgaria	68.5%	5	4	2	4	5	4	4	4	3	2	1	2
Croatia	77.8%	4	4	5	4	4	4	4	4	3	3	3	3
Czech Republic	46.3%	4	3	2	3	3	3	3	3	2	2	1	1
Estonia	69.2%	4	4	4	4	4	4	4	4	2	2	2	3
Finland	63.0%	4	4	4	4	4	4	3	4	2	2	2	2
Greece	27.8%	5	2	2	2	2	2	2	2	1	1	1	2
Italy	51.9%	3	2	3	4	2	3	3	4	2	2	2	1
Netherlands	74.1%	4	4	4	5	4	4	4	5	3	3	2	3
Poland	53.7%	4	3	4	4	4	3	4	4	2	2	2	2
Portugal	68.5%	4	4	5	5	4	4	5	5	3	3	3	2
Romania	63.0%	5	4	4	5	2	4	4	4	Nd	Nd	Nd	Nd
Serbia	52.9%	4	4	4	4	4	4	4	4	3	3	3	Nd
Slovakia	44.4%	3	3	3	4	3	3	3	4	1	1	1	2
Slovenia	62.7%	4	4	2	4	4	4	4	4	Nd	3	2	2
Spain	79.6%	4	4	4	5	4	4	4	5	3	2	3	3
Sweden	82.4%	5	3	5	5	5	3	5	5	3	Nd	3	3
Wales	88.9%	5	5	5	4	5	5	5	4	3	3	3	3

JAHEE

JOINT ACTION HEALTH EQUITY EUROPE!

ASSESSING THE IMPACTS AND LEARNING OF THE PANDEMIC IN TERMS OF HEALTH INEQUALITIES

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

From a check list of mechanisms to the policy response (importance and measurability)

- Operationalisation of the mechanism in a measurable proxy
  - Observability and measurability of the mechanism: a) monitoring system in place; b) type, availability and promptness of the data needed; c) delay time for the mechanism to have an impact on the population; d) indicators to be used to measure the impact; e) groups in vulnerable conditions that deserve ad hoc assessment
  - Latency needed to show the effect of the mechanism (short, medium or long term perspective)
- Policies that plausibly intercept the mechanism: description, feasibility, implications for equity
  - Expected effects on the mechanism of policies currently active or in the process of being activated in conjunction with the pandemic;
  - Possible policy domains concerned for the implementation of law enforcement actions (responsibilities);
  - Level of impact and/or policy (national, regional or local level);
- Supporting literature on the impact of the mechanism on health or on the effectiveness of law enforcement policies that have been activated or can be activated;

To priority and target setting