

Positioning Population Studies to understand the short and long- term impacts of the COVID-19 pandemic

IUSSP ONLINE-IUSSP WEBINAR SERIES

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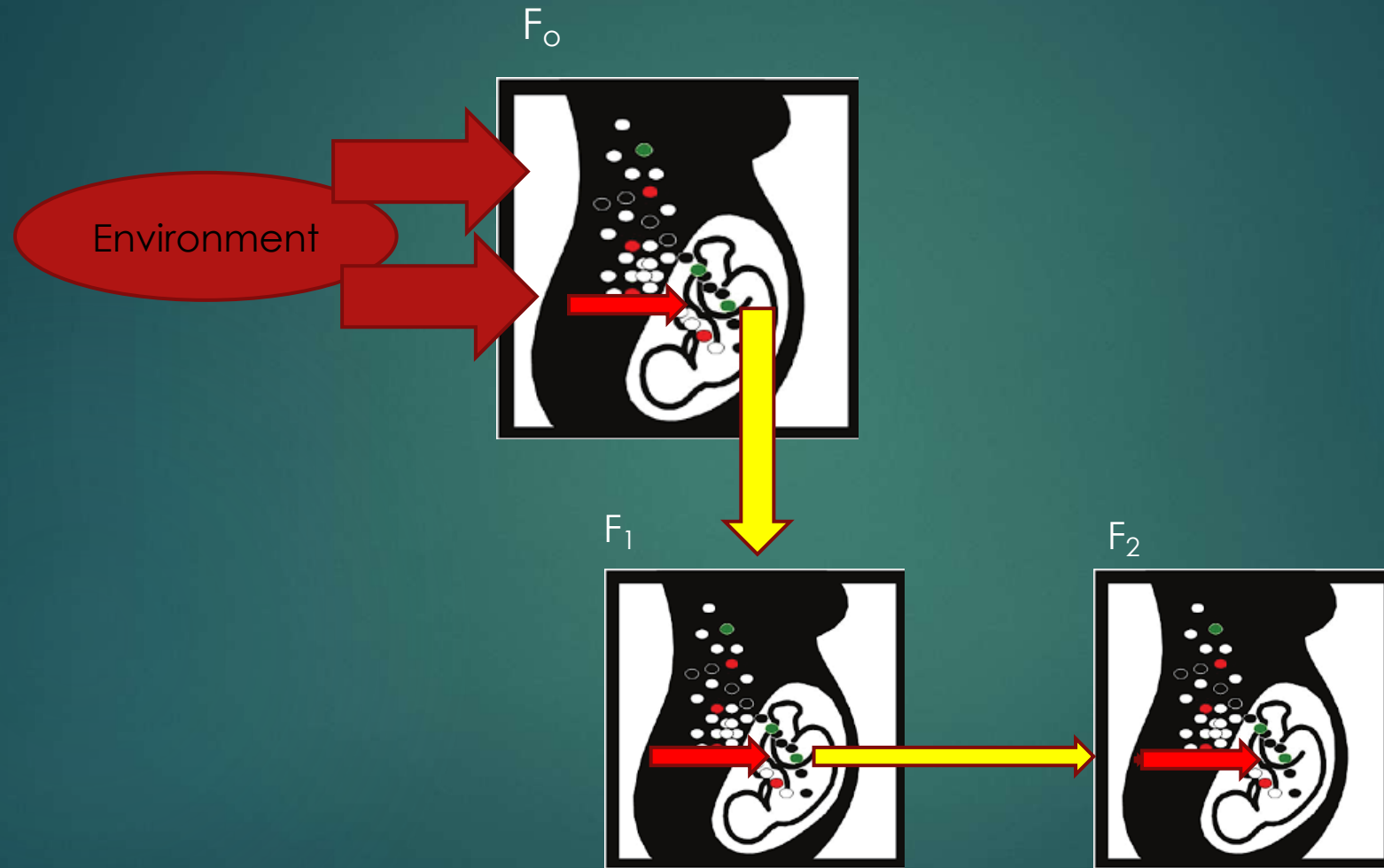
1918 Flu: what we do know (we think)

- ▶ In utero exposure effects on survivors
 - ▶ Health related outcomes: COPD, CVD, T2D, obesity, late life disability
 - ▶ Human capital-related outcomes: educational attainment, labor market performance (labor force participation, wages)
- ▶ Early childhood exposures on survivors: nutritional status
 - ▶ Deprived nutritional status → adult cognitive and non cognitive skills
 - ▶ Deprived Nutritional status → adult obesity and T2D
- ▶ Economic crisis and transformation, social disorganization and reforms??????

The time machine

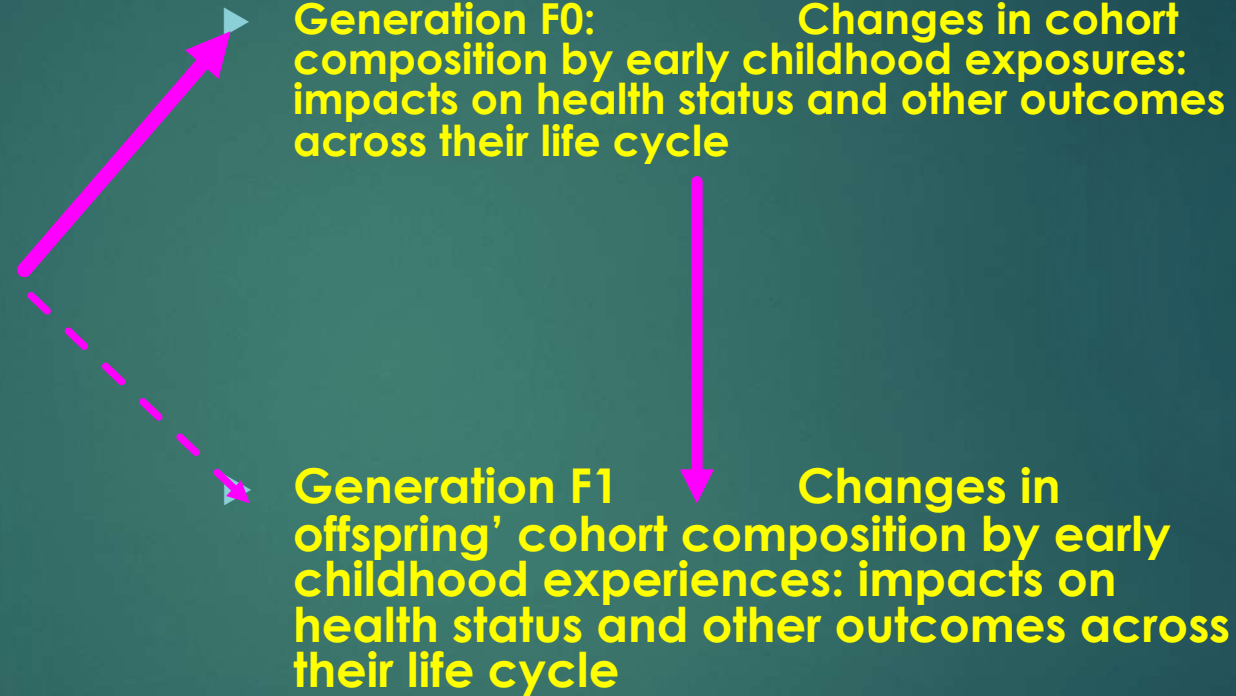
1918 Flu and the future: health, economic, social, and cultural outcomes

- ▶ Better data on the spatial and temporal trajectory of the pandemic: models
- ▶ Collect data on embryonic, fetal, early childhood and adolescent exposure (fetal origins of disease) and later health: biomarkers, genetics and epigenetics
- ▶ Information on effects of exposure in childhood and early adolescence on other outcomes:
 - ▶ cognitive and non cognitive skills, educational attainment, labor market performance
- ▶ Demographic outcomes
 - ▶ Residential arrangements, marriage and fertility
 - ▶ Intergenerational exchanges
 - ▶ Migration and migrants
- ▶ **Observational studies on intergenerational transmission**



The demography of future generations

COVID19



Covid-19 and the future: health, economic, social and ideological outcomes

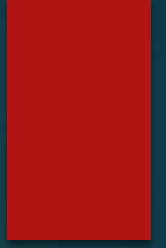
Outcomes

- ▶ Health
- ▶ Economic
- ▶ Social
- ▶
- ▶ Cultural

Type of effects

- ▶ **Duration:**
 - ▶ Short term
 - ▶ Long term
- ▶ **Mediated by**
 - ▶ Structural changes
 - ▶ Transient interventions

Positive vs Negative Effects



1918 Flu: what we do not know, have not asked but can ask of the 2020 Corona pandemic: birthweight, obesity, T2D

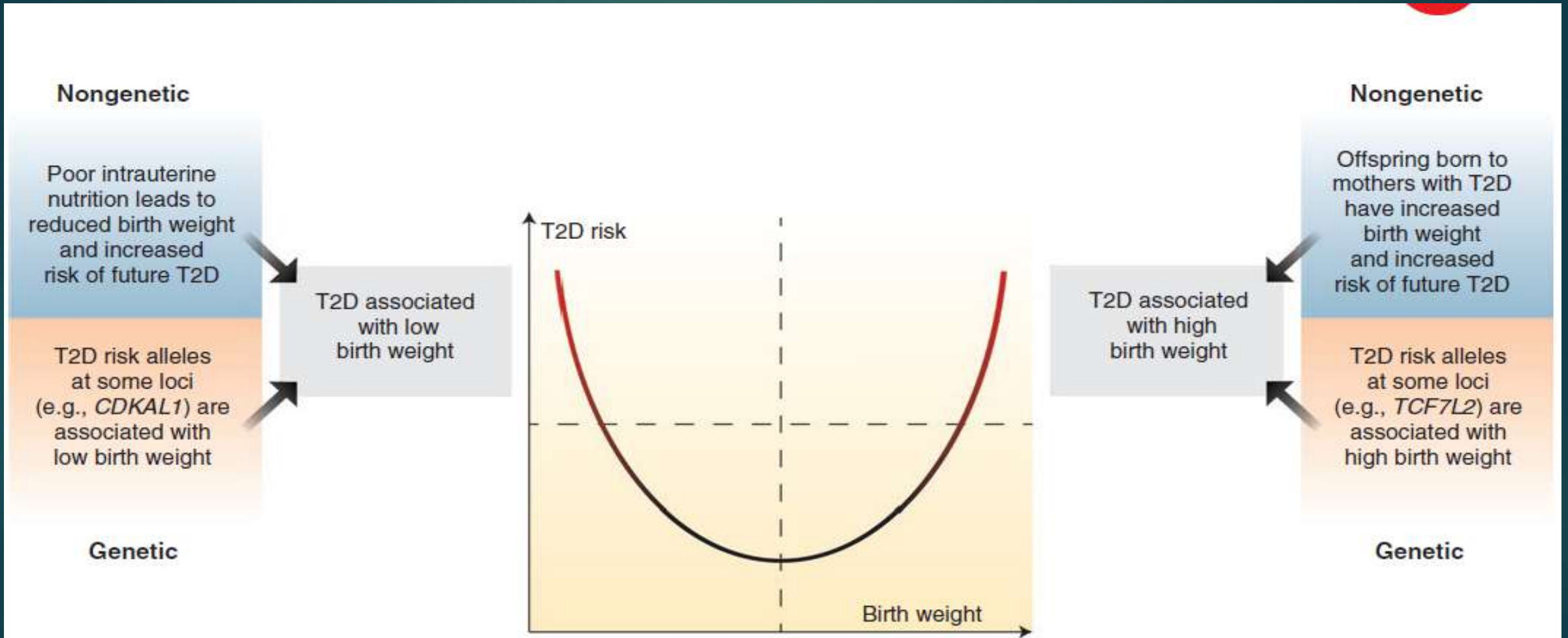


Figure 2 The relationship between risk of type 2 diabetes (T2D) and birth weight. The U-shaped relationship between T2D risk and birth weight is shown in this illustration (not to scale). Both genetic and nongenetic effects are listed on each side of the curve and refer to the upper tails of the curve at high T2D risk (shaded red).

Economic fallout

- ▶ Short-medium term (effects if transient interventions)
 - ▶ Parental exposure to economic hardship: unemployment; food insecurity; temporary career shifts; loss of income; loss of health coverage;
- ▶ **Long term (structural economic changes)**
 - ▶ **Economic restructuring and permanent occupational displacement, weaker connection to labor market, impact on residential mobility, permanent loss of safety nets**
 - ▶ **Eroded labor markets for females and young adolescents**
- ▶ **International Economic crisis: remapping of trade agreements, volumes and direction of international trade and effects on workers dislocation and international migration**

...and the collateral damage on younger generations of the economic fallout

- ▶ Children exposures: persistent poverty, food and social insecurity
- ▶ Child exposures: nutritional status, diet, access to health care;
- ▶ Children education opportunities: will they weaken, vanish,

Social organization

- ▶ Social and institutional crisis: short term
 - ▶ Within families:
 - ▶ Spousal and child abuse
 - ▶ Union stability
 - ▶ Parental behaviors, coping and exposures (diet, substance consumption)
 - ▶ **Adolescents' physical and mental health conditions: loss of goals and confidence , severe depression, poor future outlooks, substance abuse**
 - ▶ Fertility
 - ▶ Between families:
 - ▶ Weakening or reinventing social networks
 - ▶ Erosion or strengthening of inter-family solidarity
 - ▶ Created foundations for mistrust

Social organization (cont)

- ▶ **Social and institutional crisis: long term**
 - ▶ Within families
 - ▶ Shifts in socialization norms
 - ▶ **Intergenerational exchanges, kin solidarity and kin social support, residential arrangements...what findings will we have in elderly surveys 40 years from now? Changes in social contract between generations: intergenerational transfers**
 - ▶ Between families
 - ▶ **What will physical distancing do to social distancing ? The culture of exchange norms?**
 - ▶ What will physical distancing mean for child caring practices?

Stratification, inequalities, segregation

▶ New education policies:

- ▶ Learning revolution: who can learn on line? Who cannot? Who will benefit and who will not?
- ▶ Will physical distancing create even more incentives for children segregation in multiethnic communities?
- ▶ Limitation of physical activities: who can and cannot engage in physical activity to offset effects of modern diet? What kind of physical activity will be permitted and how efficient is it and how accessible to all?

▶ New economic policies:

- ▶ Defunding of public assistance create even softer safety nets than we have now
- ▶ More vulnerable labor markets? A new type of working class?

▶ New ideologies:

- ▶ Hardening of discrimination against minorities: residential segregation

The fate of migrants

- ▶ **Migrants in the modern world:**
 - ▶ **fraction of world population living in a different country than the one where they were born is an order of magnitude higher today than it was in 1919**
 - ▶ Recent migrants in most high income countries are already more vulnerable and will experience all the damage that national populations will experience but multiplied several times
 - ▶ What about migrant children? : how will the pandemic and its aftermath constrain their and their children' livelihoods?

What can we do to secure for future research and future researchers better opportunities to assess impacts of COVID19 more robustly than their ancestors had to study the 1918 pandemic ?

Positioning population studies: recall WIF

- ▶ **Initiate cohort studies of target populations and control populations**
- ▶ **Use ongoing longitudinal studies and augment samples to include children/families exposed early to pandemic (UK cohorts, PSID, NLSY, AddHealth in the US; cohort studies elsewhere)**
- ▶ **Use on going cross-sectional surveys to inject a longitudinal component (subsample of members of affected and non affected cohorts) that can be followed each time the cross section is repeated (DHS, Health, Labor market, consumer, well being surveys, periodic household surveys)**
- ▶ **Use ongoing repeated cross-sectional surveys with a focus on affected cohorts (experimental group) and non affected cohorts (control groups) even if without a longitudinal . Introduce overlap in each of the cross-sections (subsample of cohort aged x in one cross section gets reinterviewed in the next one allowing a comparison of two cohorts over two cross sections)**
- ▶ **Secure access to children and parental records that can be linked over time and augmented with new information (hospital records in selected areas, recurrent health, well-being and other household survey, that can be linked to population records in censuses or registers)**

Thank you

