**From:** Zagheni, Emilio   
**Sent:** Friday, May 15, 2020 10:17 AM  
**To:** Alburez-Gutierrez, Diego  
**Cc:** 'Williams, Ivan'  
**Subject:** RE: Excess bereavement from Covid-19: reserach proposal

Hi Diego (and Ivan),

This project looks very good, and I think that it would be great if Mallika works on this.

A couple of thoughts: what would make this project even more interesting is a move from child death to broader extended family. For example, if 100 people (egos) die, assuming little clustering within families, only a fraction of 100 (the mothers who are still alive) would experience the death of a child. However, ego may have brothers sisters, children, a spouse, etc. The number of people who bereave the death of ego may be substantially higher. Now, bereavement for a distant cousin may not be the same as bereavement for a child, so perhaps weights based on the coefficient of relatedness could be used to reweigh measures.

Calculating values for extended family could be done either with formal demography or socsim or a mix of both.

Submitting a grant proposal sounds good.  You should discuss this with Kathrin. She would be able to tell you whether for this specific scheme it would be helpful to have me in the proposal (because sometimes having a more senior person in the group increases the likelihood of funding) or if it is not (in that case there is no need to include me).

Cheers,

Emilio

**20200520 meeting**

EZ comments

* Main focus now is on formal demography, but it could also be micro-level analysis
  + Longitudinal surveys (next waves of PSAD, Share?). Compare effects of bereavement on people’s life pre-Covid19 and after Covid-19. Link to previous literature
  + Possible outcome: death, mental health
  + Register data SWE – impact of bereavement on variables related to health
  + Funerals held online, new situation
* Component linking micro and macro
  + Macro: Burden of bereavement from formal model
  + Micro: extent to which tis matters for other quantities in life (how losing parent different for spouse, sibling, variation by age).
* Formal methods
  + Cohort data needs: Back-casting fertility using simple Lee Carter model for fert and mort – validate for few countries with which we have data
  + Male fertility – we need age difference between mother and spouse. If the father is 2 years older than mother, mortality schedules for father are adjusted to be drifted by 2 years.
  + Ego can only be a woman? Can be a man if we introduce probability that male spouse is a certain age. But it is possible.
  + SOCSIM vs formal? Having formal is always ueful. Prob of experiencing cousin can be done formally and more complx with SOCSIM
  + SOCIM: include weekly segments with different rates
* Need to do
  + Answering a scientific question
  + Inter-disciplinary – bereavement, formal demography, social psychology?
  + Combining approaches – building dataset + understanding impact of bereavement on mental health
  + Highlight than I am SUDA associate
  + Saying that I have a simulation ready to go
* Discuss with Kathrin
  + Hire PhD student: 18 months are not enough for a person to finish a PhD – we start certain projects and the MPIDR finance other 18 months for PhD student. Would this work?
  + Letter of support from EZ? Saying that he is interested and will be involved and commit funding PhD student
  + Easier to get a PhD (couple of weeks to get ads + one or two month to select) than a postdoc
  + Hire Ivan.
* Mallika ()
  + Get excess COVID-19 mortality rates
  + Translate to rates to SOCSIM
  + Run simulation in Berkeley (I do with Emilio, ask Carl for code)
  + Work with outputs
  + Formal development (optional)
* Sandwich
  + See how much time children and parents require and decide threshold for dependent children – paper with Denys in PDR “who gives time to whom” by age

A. Covid

* Approach
  + How do we focus on men?
  + “The number of people who bereave the death of ego” vs “Number of relatives lost by ego”
* Microsimulation as main method (Scenario-based)
  + ‘easier’ to implement excess mortality
  + Validate with mathematical formulas for women?
  + who will implement??
* Data sources
  + Cohort demographic rates, of we want to consider people currently alive under 100 years old (assuming generational length = 30)
    - Ego: from 2020-100=1920 birth cohort
    - M1: from 1920-30=1890
    - M2: from 1890-30=1860
  + [www.mortality.org](http://www.mortality.org)
  + Male fertility: <https://perso.uclouvain.be/bruno.schoumaker/data/>
* Tasks
  + Getting same-sized rates and population data
  + Deriving GKP equations for parents, grandparents, great-grandparents, siblings, cousins and aunts and uncles
  + Implementing equations in R
* Malika’s work
  + SOCSIM as she is interested in genealogies

B. Sandwich

* Definition of dependent child and parent
* We have now 5 dimulations per country – more are coming?

C. Availability for review

* Child death Review date?
* Formal paper with Ivan