



My academic career -

Few advices, but perhas some inspiration?

Professor Svenn-Erik Mamelund Centre for Research on Pandemics & Society (PANSOC) Oslo Metropolitan University



GS-timeline for my academic work-life



FirstGen



- Grew up in Gjøvik, stay home mother, father was a bookbinder for 40 years
- Advisor supported my own father's proposal to become a repro fitter
- An uncle was rector, his son became consul general in Murmansk
- Ten kroner for good grades
- Class travel: Only me in my family with an academic education

Parents education matters a lot



Professor mot alle odds?

Hvorfor er det så lite fokus på klasse i samtalene om å øke mangfoldet i universitets- og høgskolesektoren, spør professor Svenn-Erik Mamelund.



Har jeg kanskje brutt noen / på feil tid og sted, spør pn – dette innlegget. Foto: Ken venn-Erik Mamelund i rfaugstulen

29 October 2021

Figur 1. Nye studenter i 2008¹ etter foreldrenes utdanningsnivå og oppnådd grad etter åtte år Prosent



Kilde: Statistisk sentralbyrå.' Studenter som startet i høyere utdanning første gang i perioden 1.10.2007 - 30.09.2008.



First University years

- Struggling with the academic codes, but more painful that they didn't quite understand at home?
- Wasn't good enough in maths, had to find another way
- Traveled around the world in 1993
- Aftenposten about study choices in 1994:
 - Don't follow others
 - Take advantage of your qualities
 - Do what you like and think you can be good at
 - Find your labour of love



 Av og til kjenner jeg på at det kunne vært fint å vært en sånn som bare elde denne rollen, sier professor og pandemiekspert, Svenn-Erik Mamelund.



 Det er rart at man snak intsteriker den akademisi oppfalt av åtnolare på egen pricipal at de overfær dette, ser Svenn-Erik Marnelund. Forto Kett littern Heught den



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To *become* a demographer



- At the beginning of the 1990s some teaching in demography was given as part of the basic education in economics
- In 1993, the semester subject in demography was given for the first time, I took the course in 1994
- RCN started a demography program and employed two professors in demography, one paid by RCN and one by the Department of Economics, University of Oslo

To *do* demography



- Three years in a row, I got a summer job at Statistics Norway (SSB) to analyze fertility, mortality and divorces in a period and cohort perspective
- Others who got a summer job at SSB were children of parents with a long education and who themselves had parents who worked at SSB
- "How did you manage to get a job here without parents in SSB?"

Serendipity: Deaths in Norway 1893-1992



Source: Mamelund & Borgan, 1995

DEBATT . SVENN-ERIK MAMELUND

Å skyte spurv med kanon kan lønne seg

Pandemiforsker mener at han selv er et godt eksempel på hvorfor regjeringen bør prioritere nysgjerrighetsdrevet forskning.



Interessen for pandemier kom i 1995. 26 år senere viste det seg at kunnskapen Svenn-Erik Mamelund har opparbeidet seg, viste seg å være svært nyttig – selv om han har drevet med nysgjerrighetsdrevet grunnforskning. Foto: Skjalg Bohmer Vold

Source: Khrono, 2 June 2021

Spanish flu forever

- 1997: H5N1 bird flu in H-K and my first conference (Uppsala)
- 1998: Masters and my second conference (Cape Town)
- 1998: Is the Spanish flu virus to be found in permafrost?
- 1999: WHO asks member countries to make pandemic preparedness plans and I therefore ask FHI to hire me

"Relax Svenn-Erik, your time will come" (MA supervisor in 1998)







Longyearbyen, Svalbard, 1998



Leader of the expedition Kirsty Duncan and Tom Bergan

- D/S Forsete sailed from Tromsø 21. Sept. 1918
- 7 of the passengers fell sick on the voyage
- All dies before 7. Oct. 1918
- Burried in permafrost
- Graves opened Aug. 1998

Source: Journal of Forensic Sciences, 2000, 45: 68-76

Sabbaticals in 2001 & 2008





To *be* a demographer

- Member of NDF in 1994
- Member of board in 1997
- NDS 2000 (host & organizer)
- President of NDF since 2017
- NDS 2022 (host & organizer)



15:14

1 23 % Jørgen Carling > Svenn-Erik Mamelund

15. september kl. 09:23 - 44

Takk for viktig replikk i Aftenposten i dag, Svenn-Erik! - med Kåre Bævre og 6 andre.

Replikk Norge trenger demografi som universitetsfag

Norsk Demografisk Forening deler stortingsrepresentanten Marianne Marthinsens (Ap) bekymringer for demografifaget i Norge, beskrevet i Aftenposten 13. september. Demografimiljøene i Norge krymper samtidig som forskning på demografiske problemstillinger er viktigere enn noen gang. Fire eksempler er aldring, lavere fruktbarhet, migrasjonskriser og covid-19-pandemien.

Antall demografer i Statistisk sentralbyrå, som har vært et hovedsete for norsk demografisk forskning, krymper fordi forskere ikke er blitt erstattet ved avganger samtidig som demografien ikke er blitt prioritert. På Universitetet i Oslo, som er det eneste universitetet som har undervist i demografi siden midten av 1990-tallet, vil faget nå forsvinne. på grunn av avgang og manglende nyrekruttering. Det har også foregått historisk demografisk forskning og forskning i befolkningsgeografi og medisinhistorie i skjæringsfeltet mot demografi både i Oslo og i Bergen. Heller ikke nestorene på disse feltene er blitt erstattet ved avgang.

De fire demografiske utfordringene nevnt over krever styrking snarere enn nedbygging av faget. Ved å opprette et nasjonalt forskningssenter i demografi på et av universitetene kan man styrke demografi som universitetsfag, danne grunnlag for et solid rekrutterende fagmiljø og utnytte synergier som enkeltmiljøene ikke kan.

Svenn-Erik Mamelund, leder. Norsk Demografisk Forening





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On the job market



- Struggled to find permanent relevant work in 2008
- 1-year temporary position at FHI at division of mental health
- After 6 months I got a new job, but in the Spring of 2009, there was also an influenza pandemic
- Had to follow my own heart and called the infection control director at FHI and asked them to hire me again

To turn science into policy



KRITISERES: Fagfolk reagerer på myndighetenes worst-case-scenario. Under en pressekonferanse med overlege Bjørn Gunnar Iversen ved Nasjonalt Folkehelseinstitutt (t.v.), helsedirektør Bjørn-Inge Larsen (midten) og helseminister Bjarne Håkon Hanssen (t.h.) ble det skissert at 1,2 millioner nordmenn kunne bli smittet og 13 000 dø dersom en pandemi som Spanskesyken brøt ut. Foto: Håkon Mosvold Larsen / SCANPIX

Får kritikk for skrekktall med 13 000 døde

28 April 2009

- The health authorities' statements about the number of possible death tolls as a result of swine flu arouse wonder among professionals with knowledge of medical history:
- "One has to assume that the resilience is quite different than in 1918. It seems rather far-fetched to draw parallels to the Spanish flu," says X.
- "The context is so different. Preparedness today is much better. At that time, there were few health personnel. The healthcare system then and now is not comparable. In addition, we now know much more about the spread of infection. We have received medication, and the general condition of the population has improved significantly, says Y".

The post-doc wheel



- The cleaning job over in 2012 kicked out before the 4-year rule
- Hard to get a job, regretted not taking the job offer in 2009, 20 applications, came to interview in 10 cases, but didn't get a job
- Visited Blindern and was recommended Work Research Institute (WRI)
- First permanent job in 2012, 42 years old, WRI joined HiOA in 2014 which became OsloMet in 2018
- In 2016, I felt that I had neglected my labour of love



To build a research environment from scratch

- «A no is a postponed yes»
- Learned to appreciate the process over outcomes
- Centenary of the 1918 flu 2018-2020
- COVID-19

Extreme demand for knowledge – not prepared for harrasment

DN.no & Q =



Aftenposten



Ekstreme smitteverntiltak kan få uante sosiale konsekvenser | Svenn-Erik Mamelund



3. May 2020 20:00 Sin operation 4. While: 2020



En inners! Waharbadyter sig ook dit nye corerarisaat indi ruurehind. - Sala Dillov at normali fandija, arheid ag bitidde laa U steer psykologida konsilvensor for indityggens, dorter Doren Erit Mansfand, Posc Ant dang/A/VITE acepte



DNMagasinet

Beann Erik Warnstund er en av Norges ladenste pardomforsken fred var alleverle helstrek, forsk det var 102 de veden apareikae; ben

Pandemiforskeren tror fattige er mer utsatt for koronaviruset

PROFIL

rexet Per Christian Selmer Anderssen roto Aleksander Nortlahl 11. HARS 2020

Pandemiforsker Svenn-Erik Mamelund tror koronäviruset vil ramme sosiale klasser ulikt. Under spanskesyken døde 50 prosent flere på Gronland i Oslo enn på Frogner.

COVID-19

Helsetopper og forskere har mottatt trusler og koronasjikane under pandemien

Khrono

Helsedirektoratet og Folkehelseinstituttet har anmeldt trusler. Også forskere forteller om truende, sjikanerende og ubehagelige meldinger.



Svenn-Erik Mamelund vec er en av flete som har fått ubehågelige meldinger etter uttatelser i media. Foto: Leikny Havik Sigarmeth

5 December 2020

🔿 Khrono

ÅRETS NAVN I AKADEMIA

Du må ha en sterk faglig erfaring og trygghet i bunn

Han har gjort en betydelig innsats med å formidle faktabasert kunnskap, mener juryen. Nå kan Svenn-Erik Mamelund bli årets navn i akademia.



13 December 2020

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Centre for Advanced Study at the Norwegian Academy of Science and Letters





CAS-project: Social Science Meets Biology

Indigenous People and Severe Influenza Outcomes

Led by Prof. Svenn-Erik Mamelund (Centre for Research on Pandemics & Society, PANSOC, OsloMet)



Native 1918-19 flu orphans at Nushagak, AK. Photo: Unknown / Alaska State Library - Historical Collections

The Centre for Advanced Study (CAS) was founded by The Norwegian Academy of Science and Letters in 1992 and is located at its premises. Photo: Eirik Furu Baardsen / DNVA.

Risk factors for severe pandemic outcomes

Risk factor	Seasonal flu	"Spanish" flu	Covid-19
Age	65+	20-40 yrs	65+
NCDs	YES	YES	YES
Pregnancy	YES	YES	YES
Low SES	YES	YES	YES
Migrants	?	YES	YES
Black	YES	NO	YES
Indigenous	YES	YES	YES

Sources: Mamelund 2003, 2006, 2011; Batty et.al. 2020; Drefahl 2020; Mogi 2020; Williamson et.al. 2020; Steyn N, Binny R, Hannah K, . 2020; Økland & Mamelund 2019 <u>Covid-19 etter fødeland: Personer testet, bekreftet smittet og relaterte innleggelser og dødsfall</u> (fhi.no)

Elderly normally at risk, but not in 1918-20





Source: Palese, Oldstone og Ahmed (2007), Nature Immunology 8, 1188 - 1193

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PI mortality in Norway 1917 & 1918



Relative total mortality, Norway 1918



Source: Mamelund, 2011, *Epidemics*, 3, 46-60

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Elderly in urban societies had rest-immunity



Less rest-immunity among elderly in isolated parts of the world?

Source: Palese, Oldstone og Ahmed (2007), Nature Immunology 8, 1188 - 1193



Geography May Explain Adult Mortality from the 1918–20 Influenza Pandemic

Svenn-Erik Mamelund

- Labrador 27.0%
- W-Samoa 24.0%
- Alaska 8.0%
- Enare 10.0%
- Arjeplog 3.0%
- Karasjok 2.3%



Nushagak, Alaska, summer of 1919. Source: Alaska Historical Library 25 of 37

90% died in Brevig, Alaska



Source: Mamelund, 2011, Epidemics 3, 46-60



Explanations: What's in the black box?



- 3-5 times higher 1918 flu mortality in remotely living indigenous
 - The Sami people in Norway had higher mortality *even* after controlling for summer wave exposure, crowding, and SES (Mamelund, 2003)
- 3-8 times higher 2009 «swine flu» mortality in remotely living indigenous
 - 2-7 times more medical suceptibility (e.g. diabetes mellitus, obesity, asthma, pulmonary disease) and pregnancies at young age
- Less documented risk factors (La Ruche et al. 2009; Kelly et al 2009)
 - Poverty, crowding, family size, isolation
 - Health information and access to care
 - Less genetic diversity and thus genetic suceptibility

Proposed CAS-project



- <u>Status:</u> Some Indigenous groups vulnerable towards past seasonal and pandemic influenza, COVID-19 and potentially also a future "Pathogen X"
- <u>State of the art:</u> Science- and continent silos
- <u>Beyond state of the art:</u> First interdisciplinary- and intercontinental project, also with involvement from affected groups
 - 1) Systematic review and meta-analysis of 5 last influenza pandemics 1889-2009
 - 2) Inuit populations in Alaska 1918-1920
 - 3) Greenland Inuit and Sami in Finnmark 1918-1920
 - 4) Aboriginals in Darwin, Australia using present day data
 - 5) Māori/Pacific people on New Zealand using present day data
 - 6) Indigenous peoples & Covid-19 in Mexico & Chile

The overarching aim and objectives



- Study historical and modern data to enhance the understanding of social and biological risk factors for severe influenza in Indigenous people and improve pandemic preparedness.
- Two interrelated overall objectives:

1) To map the poorly understood Indigenous risk groups in order to understand how ethnic disparities in exposure, susceptibility and access to care leads to ethnic disparities in influenza outcomes

2) To aid policy makers in developing targeted interventions by ethnic status in addition to medical indications, to reach the WHO goal of 75% vaccine coverage, to reduce ethnic inequalities, to save lives, reduce social suffering and medical costs during influenza outbreaks.

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The Team

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Early achievements & future events

Publications

Scenitronov Journal of Public Health, 2022; 58: 962-667

COMMENTARY



Indigenous peoples and pandemics

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INTERNATIONAL JOURNAL OF INFECTIOUS DISEASES

FUL LENGTHARTICLE: VOLUME 112 PHARMA SEPTEMBER 11 202



Investigating COVID-19 transmission and mortality differences between indigenous and non-indigenous populations in Mexico Setwo Devi A.E. Swin-Eli Mexico - Swin-Set Stressel - Swin-SetBown-

Create Cover

- Open mener Problement dags 20, 2022 - D.C. Marse desceny nil 1006 jul 2022 IT 102 - 🕘 Chart News

Guest lecture 8 Nov 2022

"The hunt for the virus causing the Indigenous peoples & 1918 influenza pandemic and how it Pandemics has informed science and preparedness for future pandemics"



Jeffery K. Taubenberger is Chief of the Viral Pathogenesis and Evolution Section, and Deputy Chief of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases (NIAID), USA. John Oxford is Professor Emeritus of Virology at Queen Mary University of London, UK

Malcolm King will give a keynote. He is a Professor in indigenous health & medicine at University of Saskatchewan, Canada

Conference 2023

Seminars & AB

2 NDA brown bag seminar meetings

3 Quantitative methods seminars at CAS

2 group presentations on zoom

1 AB board meeting

4 PANSOC webinars

1 conference poster



Johan Hultin at mass grave, Brevig, Alaska, June 1951

Lung tissue samples from Inuits that had died quickly in 1918 were brought to Iowa

Did not succeed in growing the virus in fertilized chicken eggs....

....and ferrets injected a mixture believed to contain the virus did not get sick



US Armed Forces Institute of Pathology, Washington DC







- Taubenberger, Reid and Hultin
- Genetic analyses of lung tissues taken from soldiers
- Scarce material
- Hultin back at the mass grave in Brevig, August 1997

Source: Science 1997, 275: 1793-1796





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The 1918 H1N1 virus re-created in labs

- Full gene sequences mapped in 2005 (Nature 437: 889-893)
- Letality confirmed in animal studies in 2007 (Nature 445:319-323)
- Could not explain waves, increase in virulence over time and the age pattern

Journey is not over



- Excellence initiatives are important to me (Forskerlinjen, Mentor program, MSCA masterclass, Talent program, CRE)
- We just won a Young CAS & did a R&R to ERC
- We have submitted several grant applications and await results
- To get a Center of Excellence at OsloMet is part of our goal



Labour of love is key



- Forelska i faget

AFI-forsker Svenn-Erik Mamelund (50) har nettopp fått beskjed om at han får tildelt ett år ved det prestisjefylte Senter for grunnforskning (CAS).



Send

Photo: Sonja Balci

Forskningsartikkel av: