

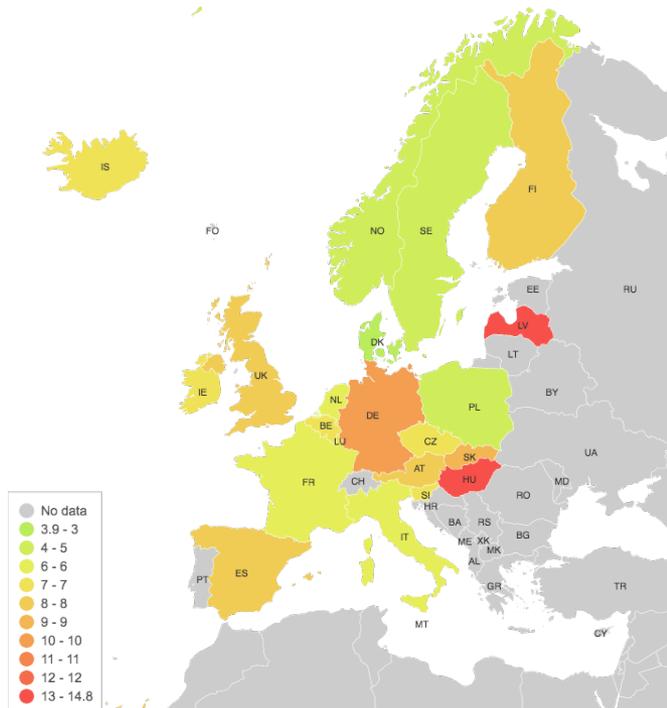


# Data availability and analytical capacity: enhancing information at meaningful levels of analysis

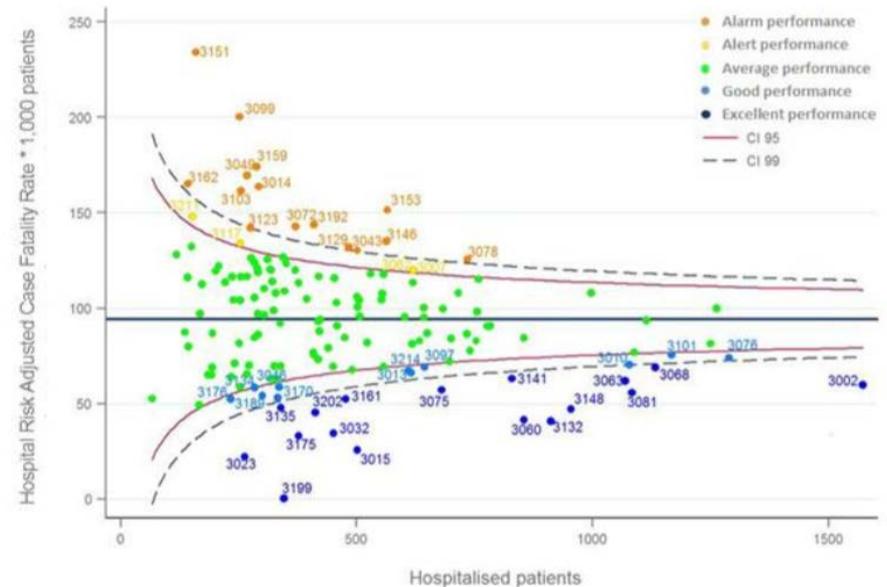
Enrique Bernal-Delgado, Ester Angulo-Pueyo, Francisco Estupiñán  
EUPHA November 2016



# WHY A ML / MS APPROACH IS NEEDED?

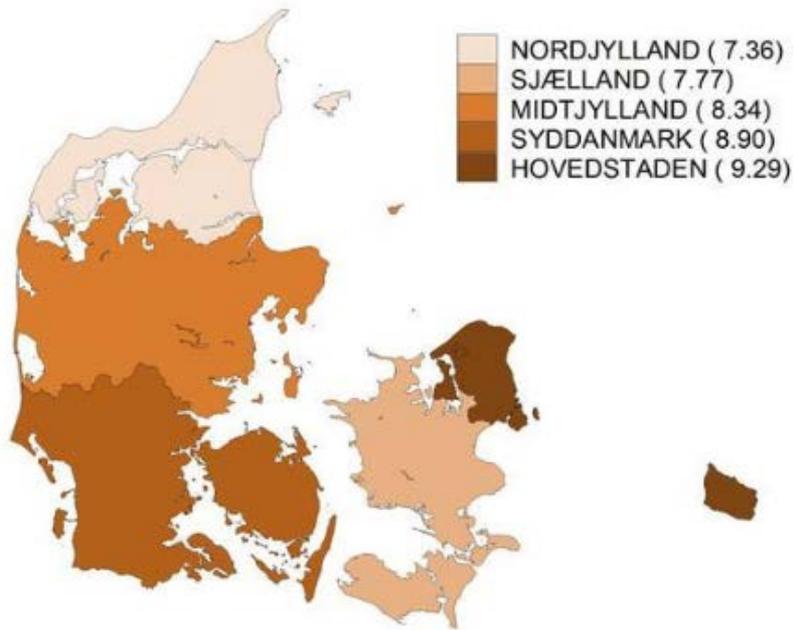


Proportion of in-patient mortality within 30 days after AMI admission in 2009 (ECHI Indicator)

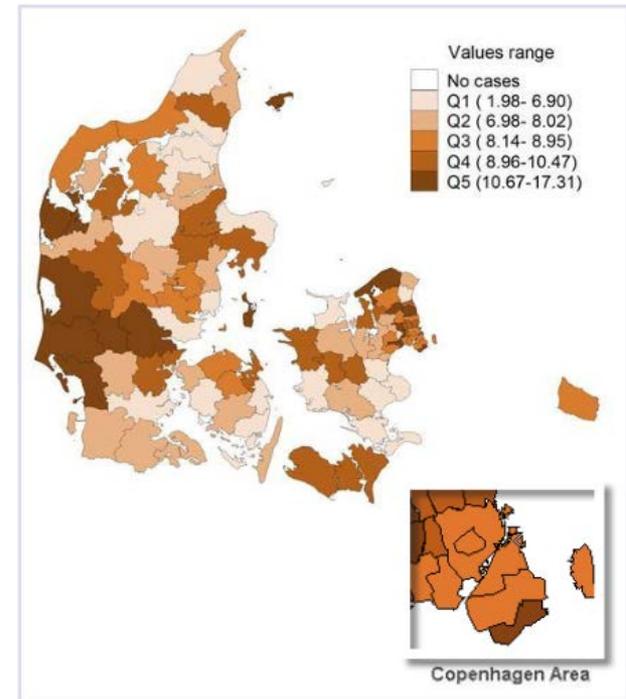


In-hospital mortality after AMI admission at English hospitals, 2009

# REGIONAL LEVEL IS NOT ENOUGH

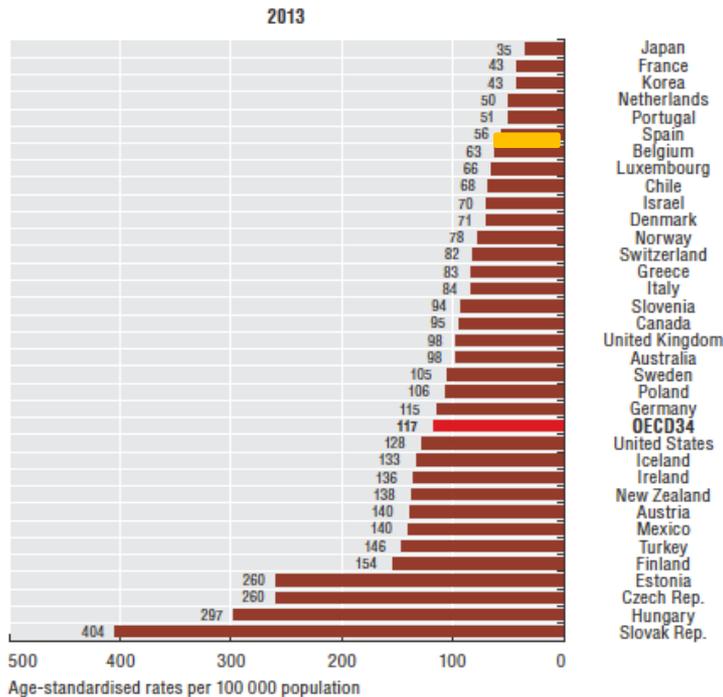


Standardised coronary artery bypass grafting utilisation rate per 10,000 inhabitants in Denmark 2009 by Health Regions



Standardised coronary artery bypass grafting utilisation rate per 10,000 inhabitants in Denmark 2009 by Kommuner

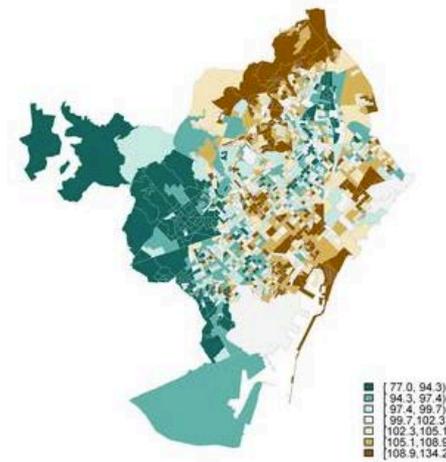
# A DEEPER LOOK MAY BE ALSO NEEDED



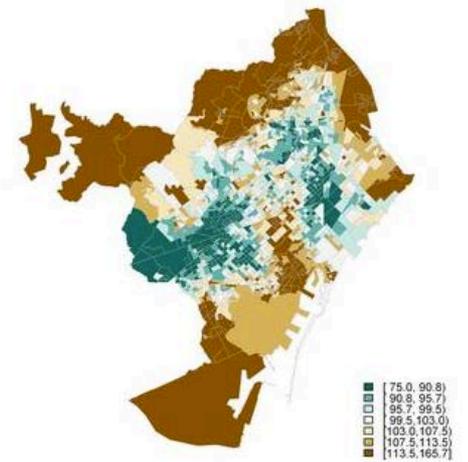
Source: OECD Health Statistics 2015, <http://dx.doi.org/10.1787/health-data-en>.

Ischaemic Heart Disease Mortality in OECD countries 2013.

Men  
Smoothed Standardised Mortality Ratio (sSMR)



Women  
Smoothed Standardised Mortality Ratio (sSMR)



Ischaemic Heart Disease Mortality in Barcelona over the period 2000-2008 (INEQcities).

# CHALLENGES THAT WE HAVE TO ADDRESS

- Lack of data disaggregated at the units of interest
- Lack of interest in the secondary use of routinely collected data
- Limited access to data, in particular to individual data
- Limits to the reporting at smaller units
- Methodological gaps on how to adequate the research design to a MS/ML approach, how to manage data from many sources, and how to conduct relevant analyses
- Lack of logistic capacity to manage and analyse big amounts of data