

# An enriched disease risk assessment model based on historical blood donors records

E-Rum 2020: R in Life Sciences

**HeartInData:** Andrea Cappozzo, Edoardo Michielon, Alessandro De Bettin, Chiara D'Ignazio, Luigi Noto, Davide Drago, Alberto Prospero

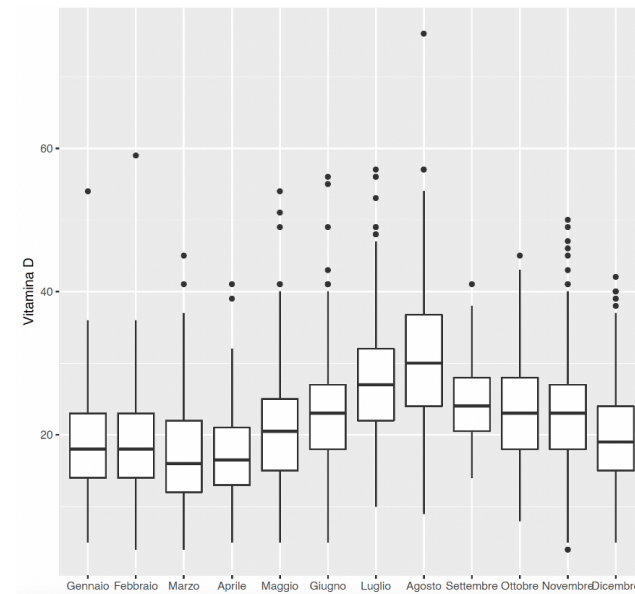
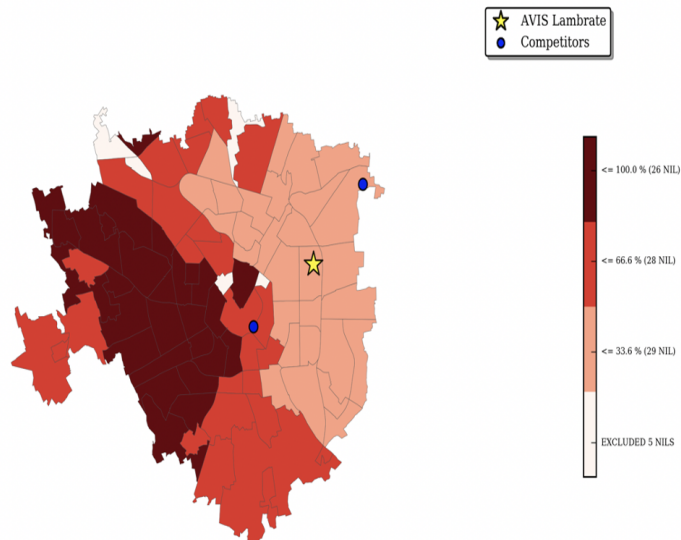
**AVIS Milano:** Sergio Casartelli, Francesca De Chiara

# Expectation vs reality



# What is HeartInData?

- Data science for social good
- Based in Milan (IT), active since May 2016
- Success stories



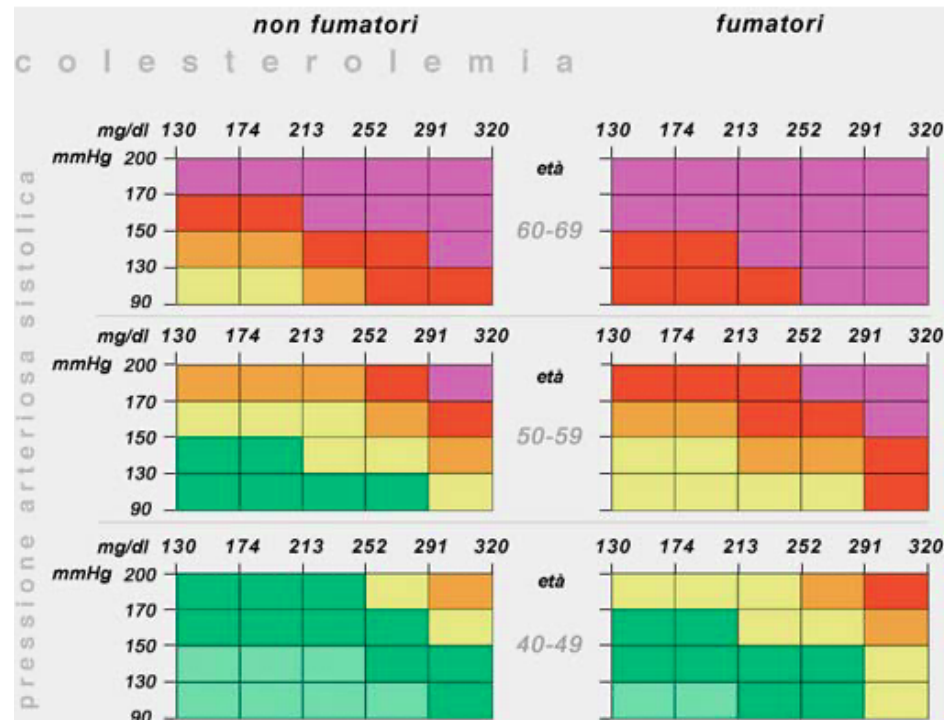
- What's next?

Enriched disease risk assessment model



# Current scenario

Risk factors are assessed at an illness-specific level  
Cardiovascular disease risk



but they may actually cause the appearance of different diseases in different patients (Meijers & De Boer, 2019)!



# Beyond the state-of-the-art

## AVIS HISTORICAL DATA

- 10-year records of blood donations
- Donor-specific and donation-specific clinical parameters
- Donations drop-out causes

## PROJECT AIMS

- Annual report on risk factors in the blood donors population
- Risk factors assessment at a global level
- Prevent not-clinically evident diseases



# For the actual model... STAY TUNED!



[www.heartindata.it](http://www.heartindata.it)



[www.avismi.it](http://www.avismi.it)

THANK YOU FOR YOUR ATTENTION!

