



Center for  
Big Data Statistics

# The need for timely official statistics: the pandemic as a driver for innovation

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Towards smart statistics

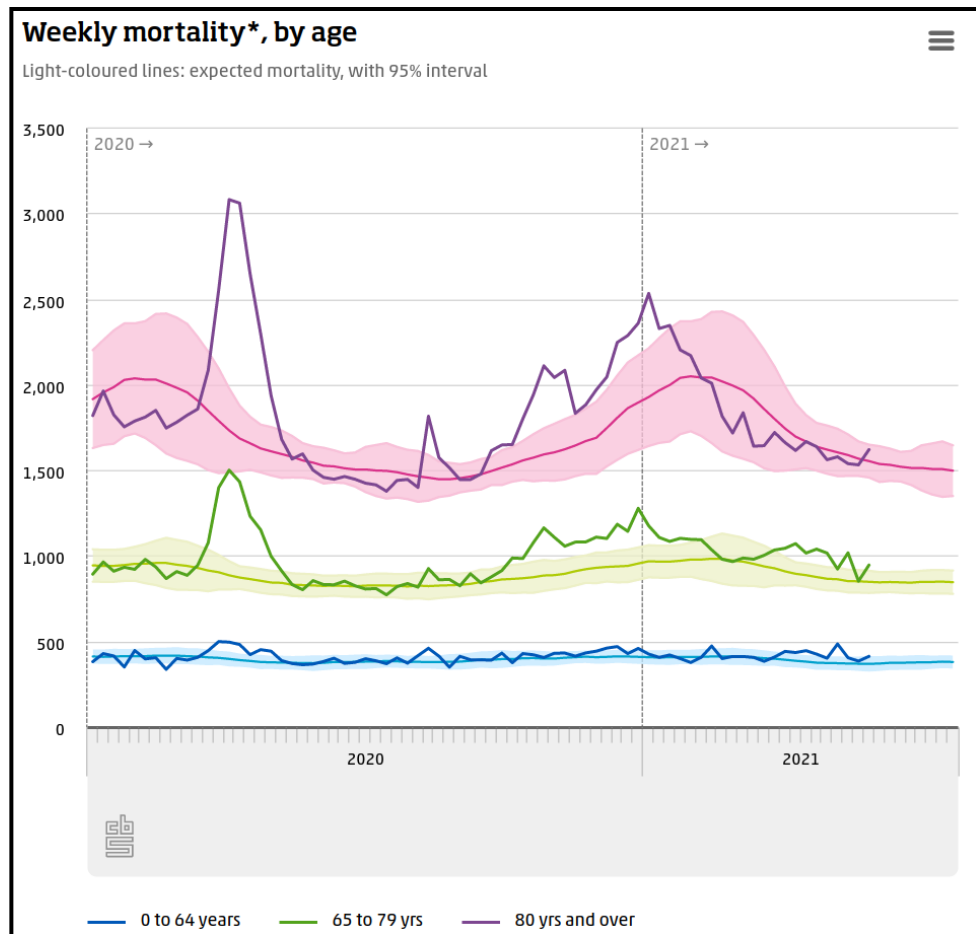
# Role of Statistics Netherlands

- Support evidence based decision making
  - By producing reliable statistics which reduces disinformation
- During the COVID-19 period there is a clear need to:
  - Produce high quality statistics
  - Produce more timely and more frequent statistics
  - Include evidence of new data sources
  - Increase the dialog with users



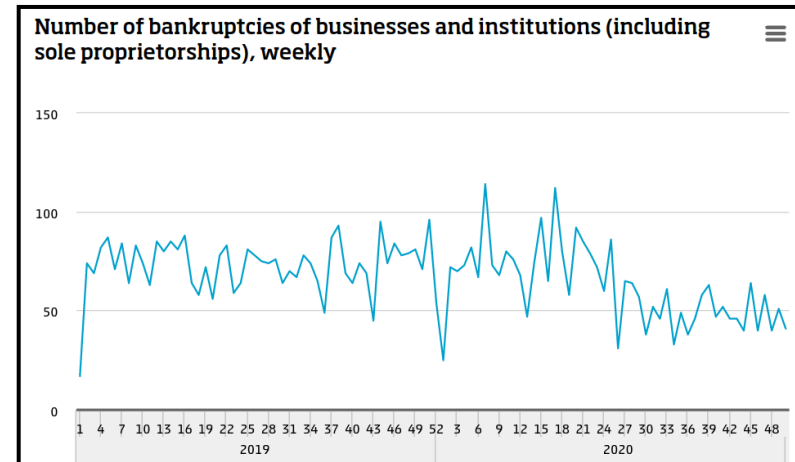
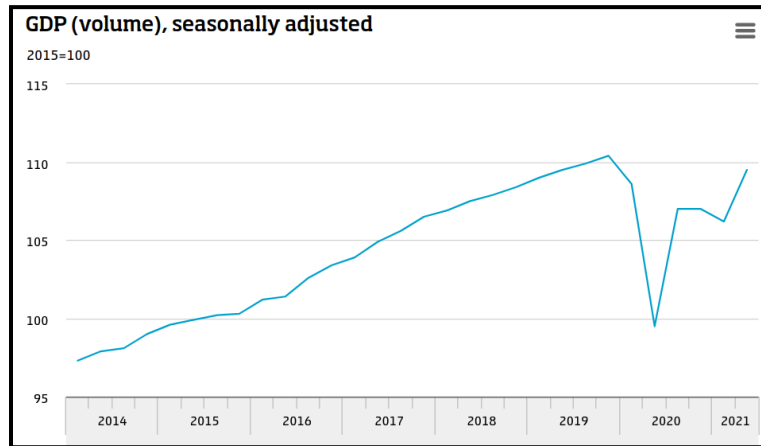
# 1. Excess mortality

- Already existing publication
- Increase timeliness to weekly
- Speed-up internal process
- Added estimated mortality
- More detailed



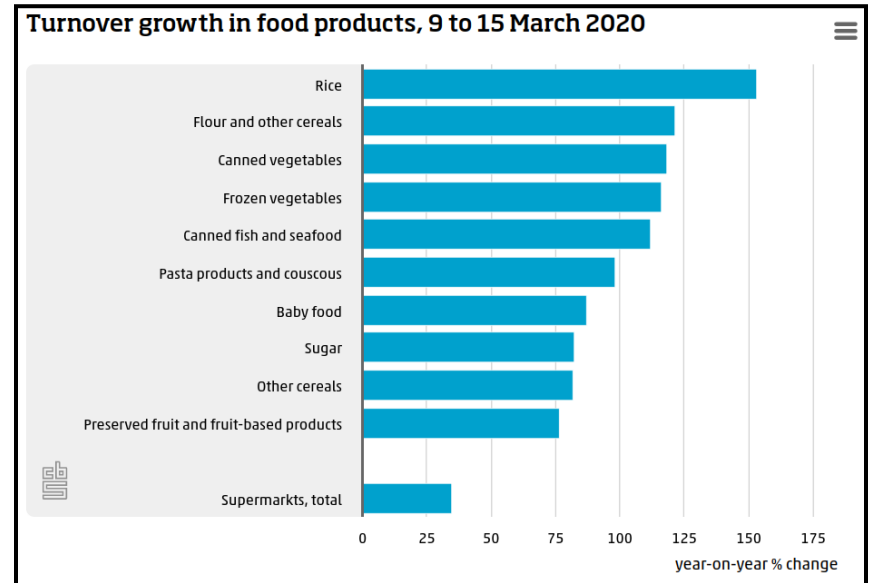
## 2. Economy

- How is it developing?
  - Increase timeliness of Bankruptcy statistics to weekly
  - GDP quarterly, published ASAP



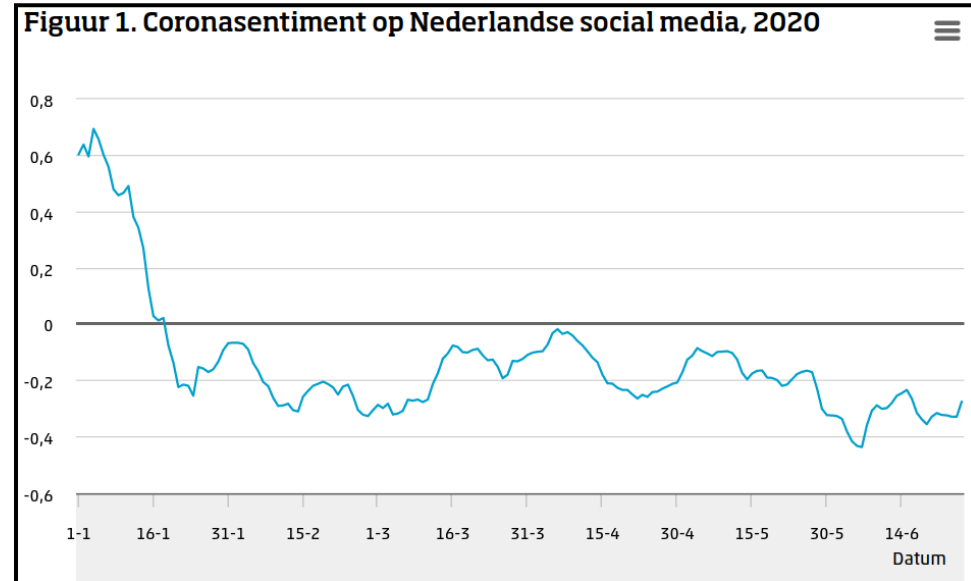
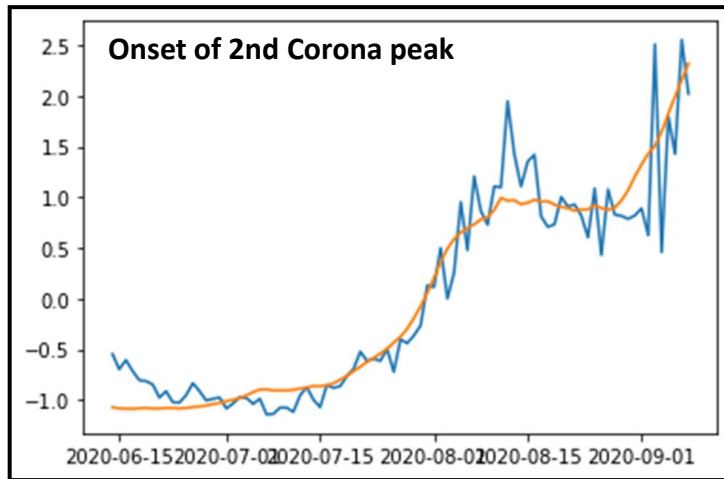
# 3. Quick insights: Scanner data

- Big Data already in house
  - Scanner data of supermarkets
    - New: Hoarding
- Enabled new data analysis
  - Run on rice, hand soap, toilet paper



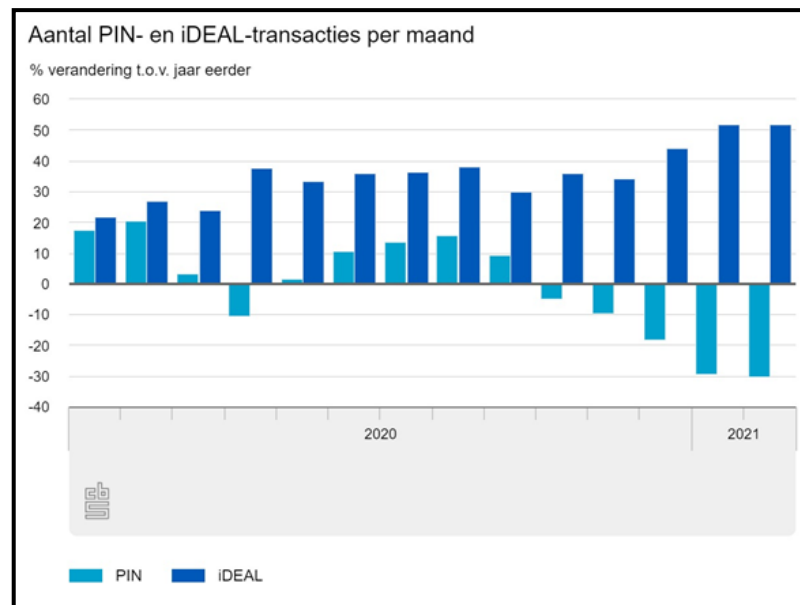
# 3. Quick insights: Social media

- Mainly based on Twitter
  - Daily insight on sentiment towards COVID-19
  - COVID-19 symptoms spread



## 4. Online purchases

- New data available
  - Insights in online purchases, monthly data
  - Debit card transactions
    - PIN in shops
    - IDEAL online
- In cooperation with 'Dutch Payments Association'
  - Data obtained at aggregated level



# 5. Dashboards

- Contributed to various (online) dashboards
- Communicate, communicate, communicate
- Important for policy makers, public, ....
  - There is an obvious need for relevant & trustworthy information

## Well-being in times of coronavirus

Presented here is the most up-to-date overview of well-being in the Netherlands, divided over nine themes. The development in relation to these themes is based on multiple indicators for each theme.





# Lessons learned during pandemic

- Intensive interaction with users; what's in it for them?
- Need for data architecture that allows flexible analyses
- Processes under control
- Culture of trial and error
- Close contact with owners of privately held data (start early)
- Communicate
- Motivated and capable staff ! (worked at home!)



# The future

- Important directions
  - Machine Learning and Artificial Intelligence
    - Use texts and images for official statistics
    - Methodological & quality issues
  - Always look out for new data sources
    - Be proactive, getting access takes time, quality checks
  - Dialogue with public, universities, industry, ...
    - User needs, discuss and explain privacy concerns

Thank you for your attention !!



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