





Data sources that could be of interest in COVID-19 research

Health statistics and availability

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Microdata CBS

A treasure of data on health, care and well-being

In this presentation:

- Different sources of microdata that could be of interest in COVID-19 research
- Import things to know regarding health care registrations
- Availability of microdata

Different types of microdata

Health and well-being of the Dutch population measured with:

- Health care registrations of external source holders
- CBS survey (enquête) research:
 - Gezondheidsenquête (since 1997; sample N=10,000 every year)
 - Gezondheidsmonitor (since 2012; sample N=400,000 once every 4 years)
 - Leefstijlmonitor (since 2014; sample N=10,000 every year)

Important things to know

- Include special personal data
- Permission required of external source holders
- Occasionally additional costs and specific conditions
- On some topics more than one data source available with their own advantages and disadvantages
- Standard CBS procedure for RA research:
 - Expert consultation prior to research (intake)
 - Purpose limitation controle prior to research (doelbinding)
 - Output control afterwards (output controle)

Example of possible COVID-19 research

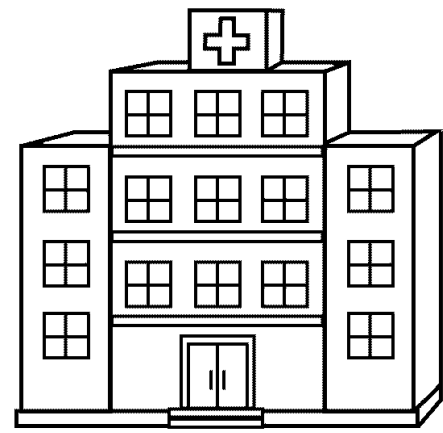




“cause of death”
COVID-19



ZVW
(transport)



ZVW / LBZ / DBC's MSZ
(hospital admissions)



of contacts
at GP (Nivel)



medication use



LongTerm Care use



Income /
Education



Many different registrations available via RA

- Selection of COVID-19 patients possible (*i.e.*, based on LBZ or “causes of death”)
- Combine with other registrations to identify possible pathways of care

Details about the registrations



Basisregistratie Personen (BRP)

Persons, living in the Netherlands, trackable in time since 1995:

- Linked by encrypted BSN (if available), or based on postal code, gender, and date of birth
- Applications: birth, death, age, migration background, marital status, family composition, etc.
- Used to calculate excess mortality (oversterfte), due to COVID-19

→ **Available: 1995-2020**

→ **2021 follows May 2022**



Causes of death

A CBS registration of all causes of death of all persons registered in the BRP:

- Full registration of all natural and unnatural causes of death
- ICD10-codes, including new COVID-19 codes
- Applications: underlying causes of death, date of death, location of death, etc.

→ **Available: 1995-2019**

→ **2020 follows August 2021**



Hospital Admissions

1. Landelijke Basisregistratie Ziekenhuiszorg (LBZ) - Dutch Hospital Data (DHD)

- Clinical admissions, day admissions, and prolonged observations;
- ICD10-diagnosis, including new COVID-19 codes;
- Main activities; Specialisms of admission and discharge

→ **Available: 2013-2019**

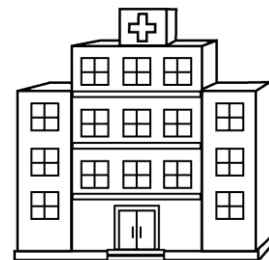
→ **2020 follows Q4 2021**

2. DBC Medisch Specialistische Zorg (MSZ) - Vektis

- Diagnose-behandelings-combinaties, care activities in hospitals, ZBC's, rehabilitation- and dialysis centers
- Based on declared and reimbursed care;
- Not ICD10-diagnosis but DBC diagnosis
- Includes outpatient clinic activities, not in LBZ
- Activity codes for Emergency Department (SEH)

→ **Available: 2016-2019**

→ **2020 follows Q1 2022**



Health Insurance Act (Zorgverzekeringswet)

Declared and reimbursed health care costs ZVW (basic insurance) of persons registered in the BRP and insured via a basic health care insurance:

- Source holder Vektis: permission Vektis required
- Additional costs Vektis
- Content of the basic insurance changes every year
- Excluded: additional insurance, costs outside health insurance, own payments
- Applications: mean costs per person per year for different health care types (i.e., hospital care, GP care, mental health care, medicines, medical aids, medical transport, etc.)

→ **Available: 2009-2018**

→ **2019 follows September 2021, 2020 follows September 2022**



Medicines (geneesmiddelen)

Dispensed medicines reimbursed by ZVW (basic insurance):

- Source holder Zorginstituut: permission Zorginstituut required
- Excluding medicines provided in nursing homes and hospitals
- Excluding quantity and reason of prescription (diagnosis)
- Applications: selection of patient groups based on type of prescribed medication (ATC4-code)

→ **Available: 2006-2019**

→ **2020 follows Q4 2021**



Nivel primary care database (huisartsenzorg)

Sample of Dutch GP practices (including all patients of the participating GP practices): ~10% of the Dutch population included, no nursing homes residents

- Source holder: Nivel
- Data to be requested and paid for to Nivel
- Disease-episodes (International Classification of Primary Care ICPC-1 codes)
- Applications: selection of patient groups based on a specific condition, health care pathways of GP patients, number and type of contacts with the GP, information of prescriptions

→ **Available via Nivel: until 2019**

→ **2020 follows Q3 2021**



Long-term Care

Different registrations of different source holders (CAK, CIZ, Vektis, SVB), since 2009:

- Long-term Care Act (Wet Langdurige Zorg, Wlz)
- Social Support Act (Wet Maatschappelijke Ondersteuning, Wmo)
- Health Insurance Act (Zorgverzekeringswet, Zvw)
- Population: people using or entitled to long-term care, financed by Wlz, Wmo and/or Zvw (presentation Rik)
- Applications: use of care and care entitlements, personal budget (PGB) and care in kind (zorg in natura: money paid directly to health professionals), care expenditure / care volume, co-payments (eigen bijdrage)

→ **Available: 2015-2019**

→ **2020 follows Q4 2021**



Take home messages



Take home messages

- Many different health registrations
- Think about what register is best to use
- Availability of the registers

GGD testdata (CoronIT)

Available for:

- Step 1: RIVM/CBS research to fight the pandemic (now)
- Step 2: CBS research at adjacent areas
- Step 3: Research via Remote Access

Some additional slides about the registrations



Landelijke Basisregistratie Ziekenhuiszorg (LBZ)

Hospital admissions of persons registered in the BRP:

- 3 types of hospitals: general hospitals, academic hospitals, and 3 short-stay categorical hospitals
- Source holder Dutch Hospital Data (DHD); permission DHD required
- Additional costs DHD
- Clinical admissions, day admissions, and prolonged observations (since 2015)
- Incomplete registration of diagnosis at day admissions
- Applications: clinical admissions, day admissions, and prolonged observations with their diagnoses (ICD10), including new COVID-19 codes; main activities; specialisms of admission and discharge

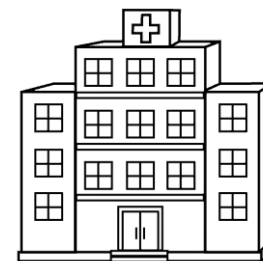
→ **Available: 2013-2019**

→ **2020 follows Q4 2021**



Content data files LBZ

BASIS		DIAGNOSEN
RINPERSOON	↔	RINPERSOON
IDopname	↔	IDopname
Instellingsnummer (versleuteld)		IDdiag
Zorgtype		Specialisme diagnose
Urgentie		Primaire diagnose (0/1)
Opname- en ontslagdatum		Diagnose volgens ICD10
Herkomst en bestemming patiënt		
Specialisme opname en ontslag		
Hoofddiagnose volgens ICD10		
Hoofdverrichting		
Vlag incompleet (0/1)		



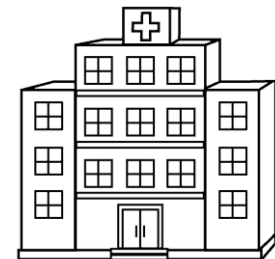
DBC Medisch Specialistische Zorg (MSZ)

Diagnose Behandelings Combinaties (DBC) and corresponding care activities in hospitals, categorical hospitals, independent treatment centers (ZBC's), rehabilitation-, dialysis-, audiological-, and radiotherapeutical centers

- Source holder Vektis; permission Vektis required
- Additional costs Vektis
- Declared and reimbursed care
- Includes outpatient clinic activities (not in LBZ)
- Activity codes for the Emergency Department (SEH)
- DBC-diagnoses used, not ICD10-codes

→ **Available: 2016-2019**

→ **2020 follows Q1 2022**



Professions in Health Care (BIG-registratie)

Persons registered in the BIG register (“Beroepen in de Individuele Gezondheidszorg”): certified medical care professionals like doctors, dentists, clinical technologists, midwives, nurses, physician assistants, and dental hygienists

- Source holder: CIBG
- Applications: profession and specialism, date of registration, and date of deregistration

→ **Available: 1995-2020**

→ **2021 follows January 2022**

- **Bepaalde beroepsgroepen in de zorg meer besmet geraakt?**

