E9: Delivering equity and sustainability

International Forum on
QUALITY & SAFETY
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COPENHAGEN

Adapting to a changing world: equity, sustainability and wellbeing for all

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Institute for Healthcare Improvement

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International Forum on QUALITY & SAFETY in HEALTHCARE COPENHAGEN

15-17 May 2023

Bella Center | Copenhagen, Denmark

E9: Delivering equity and sustainability short oral presentations

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Welcome

Jan Mainz, Region North Denmark & Aalborg University

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International Forum on QUALITY & SAFETY in HEALTHCARE COPENHAGEN

Disparities in emergency care among patients with mental illness

Julie Mackenhauer, Danish Center for Health Services Research

Institute for Healthcare Improvement

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DISPARITIES IN EMERGENCY CARE AMONG PATIENTS WITH MENTAL ILLNESS

Julie Mackenhauer

MD PhD

AALBORG UNIVERSITY
DENMARK

PSYCHIATRIC HOSPITAL

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Why mental illness?

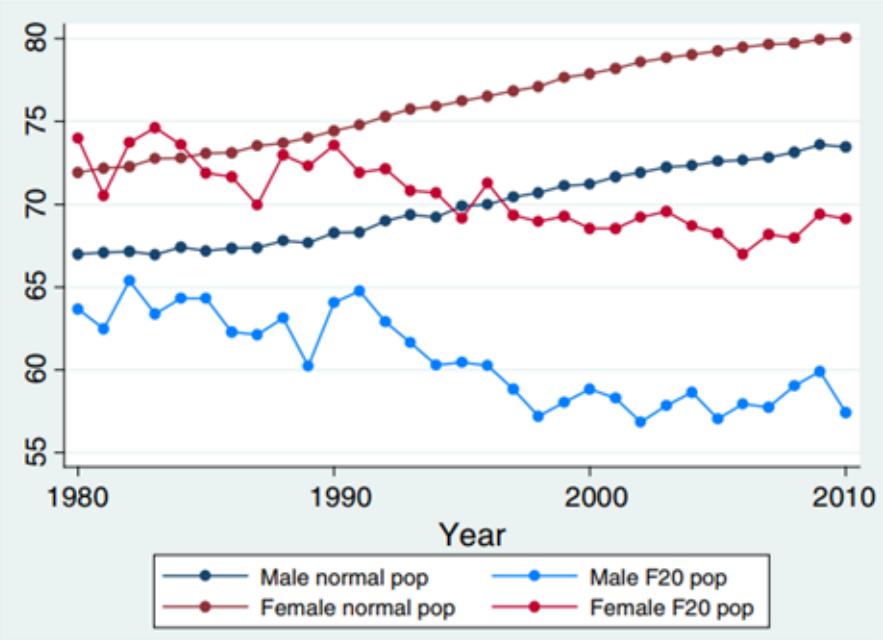
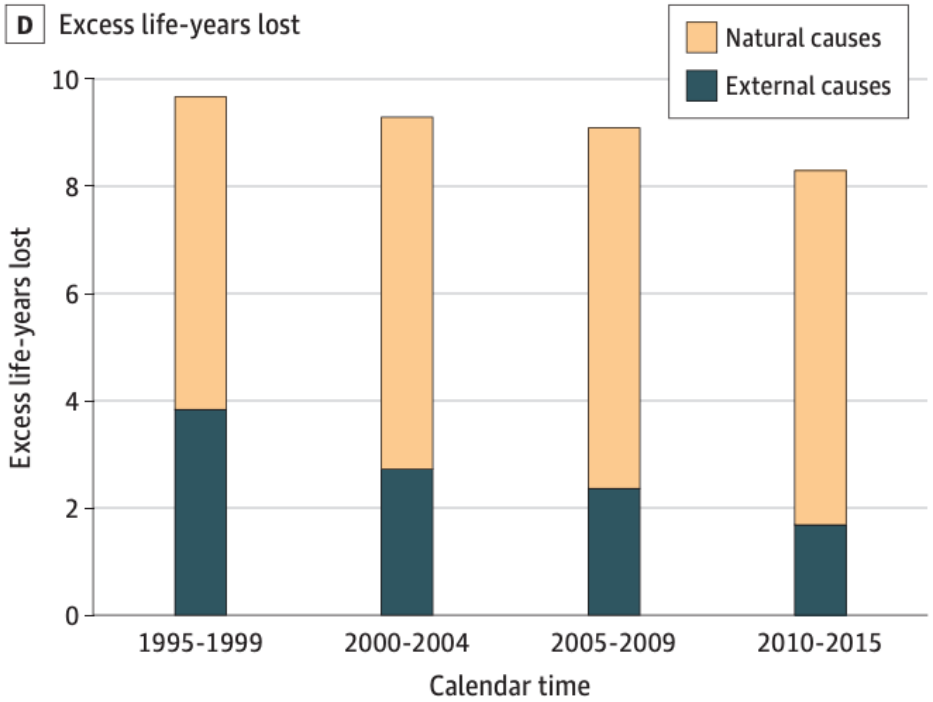


Fig. 2. Average age of death by year for the schizophrenia and general population over three decades with intentional self-harm excluded as cause of death.



Schizophrenia Research 146 (2013) 22–27
Contents lists available at SciVerse ScienceDirect
Schizophrenia Research
journal homepage: www.elsevier.com/locate/schres

Increasing mortality gap for patients diagnosed with schizophrenia over the last three decades — A Danish nationwide study from 1980 to 2010

René Ernst Nielsen [a,b,*], Anne Sofie Uggerby [a], Signe Olrik Wallenstein Jensen [a], John Joseph McGrath [c,d]

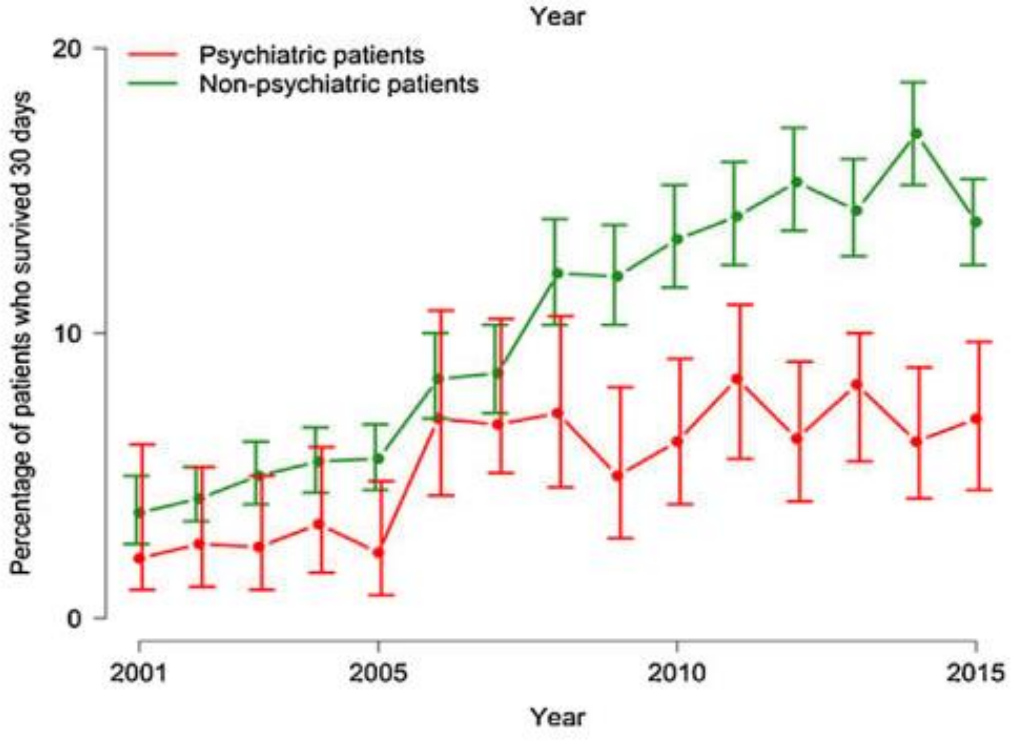
RESEARCH LETTER

Changes Over Time in the Differential Mortality Gap in Individuals With Mental Disorders

JAMA Psychiatry June 2020 Volume 77, Number 6

Oleguer Plana-Ripoll, PhD
Nanna Weye, MSc
Natalie C. Momen, PhD
Maria K. Christensen, MSc
Kim M. Iburg, PhD
Thomas Munk Laursen, PhD
John J. McGrath, MD

Emergency care



Available online at www.sciencedirect.com
Resuscitation
journal homepage: www.elsevier.com/locate/resuscitation
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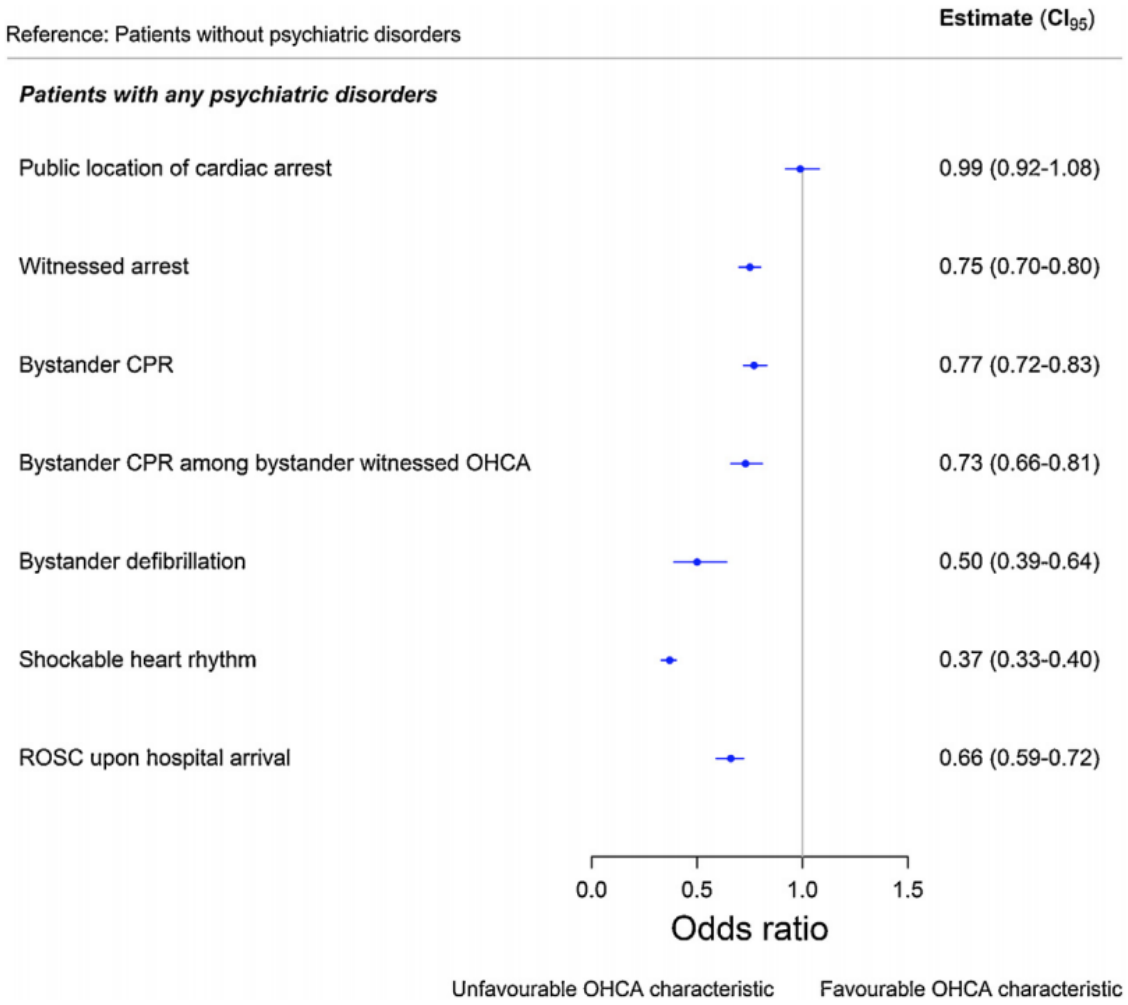
EUROPEAN RESUSCITATION COUNCIL

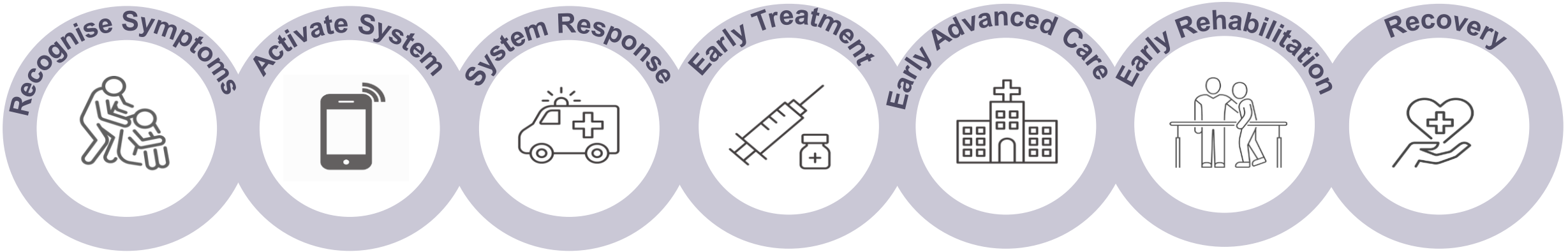
Clinical paper

Out-of-hospital cardiac arrest in patients with psychiatric disorders — Characteristics and outcomes

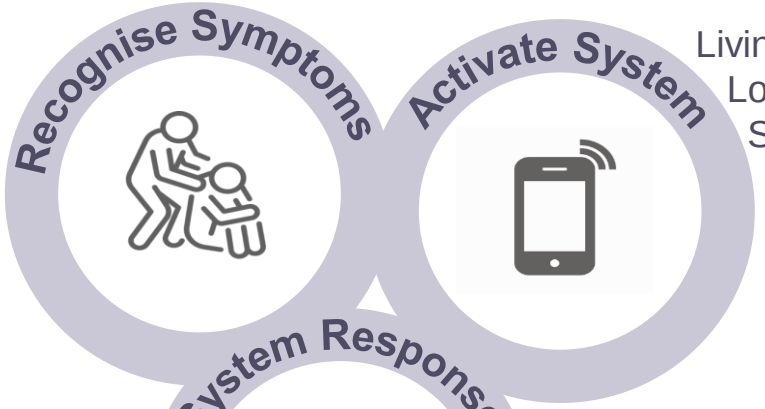
Carlo Alberto Barcella[a,], Grimur H. Mohr[a,b], Kristian Kragholm[c,d,e], Paul Blanche[a,f,g], Thomas A. Gerds[f,h], Mads Wissenberg[a,i], Steen M. Hansen[d,e], Kristian Bundgaard[d], Freddy K. Lippert[i], Fredrik Folke[a,i], Christian Torp-Pedersen[c,k], Lars V. Kessing[i], Gunnar H. Gislason[a,h], Kathrine B. Søndergaard[a]*



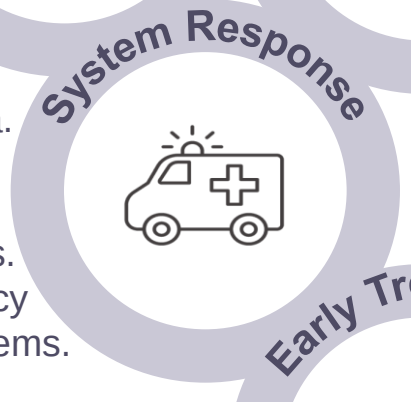
Chain of Survival



CHAIN OF SURVIVAL: Impact of society, healthcare system, mental health and social position



Living alone.
Low health literacy.
Stigma from society – no help from bystanders.

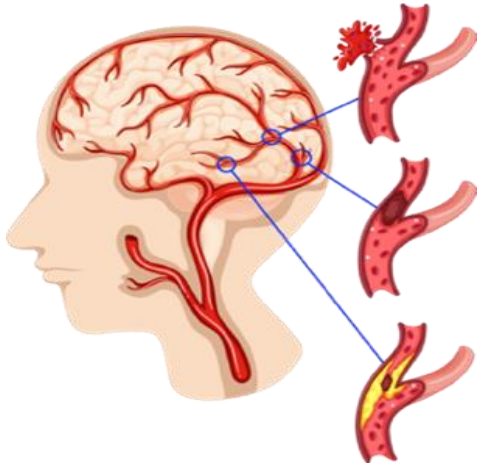


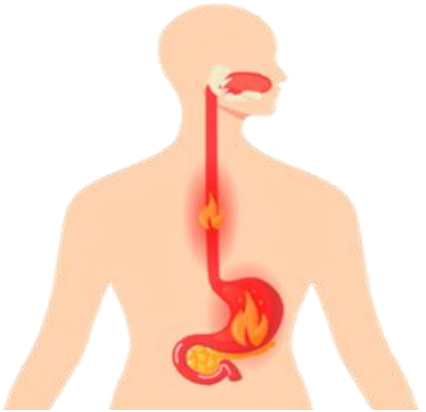
Living in rural area.
Political demand to reduce hospital admissions and ambulance dispatches.
Poor design of emergency care systems.

Limited resources.
Late hospital arrival
Atypical symptoms.
Stigma from health staff.

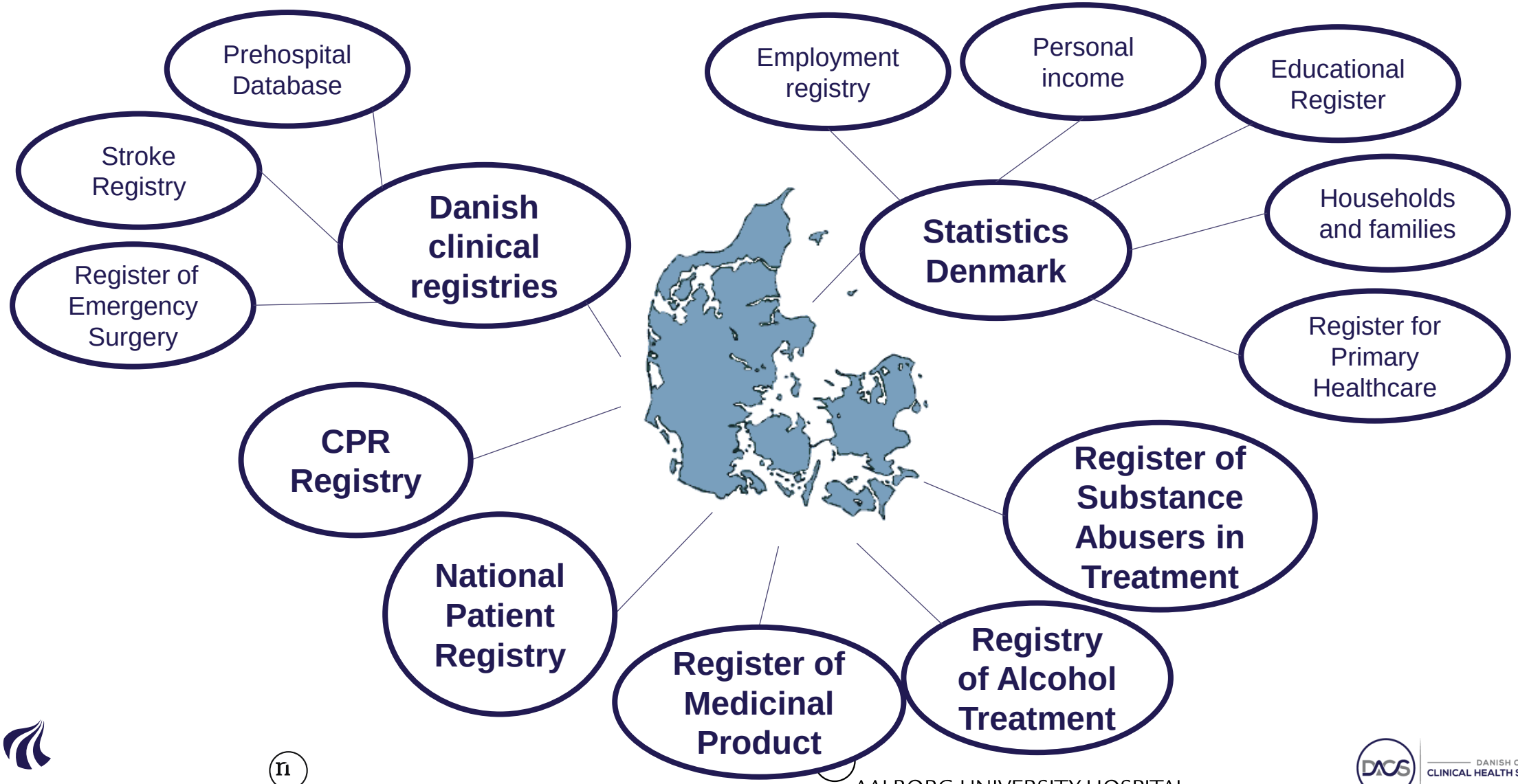
Higher mortality due to patient-related factors (smoking, drug abuse, alcohol, other co-morbidities.)

4 studies: compare patients with and without a history of mental illness





Methods: Nation-wide cohort studies



The 4 groups

<u>History of MAJOR mental illness:</u>

- Schizophrenia or bipolar disease
- Severe depresison or personality disorder

<u>History of MODERATE mental illness</u>

- Any other psychiatric diagnosis
- Consultations at a private psychiatrist

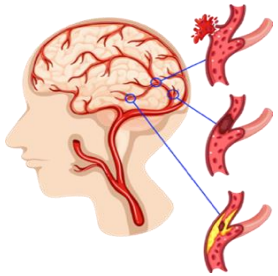
<u>History of MINOR mental illness</u>

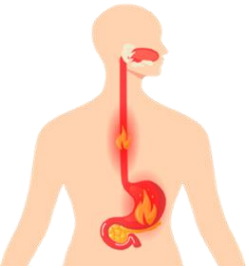
- Two or more
  - redeemed prescriptions: Antidepressiva or benzodiazepins
  - talk therapy or psychometric testing in a primary care setting
  - referral to a private psychologist

<u>No history of mental illness</u>

- None of the above

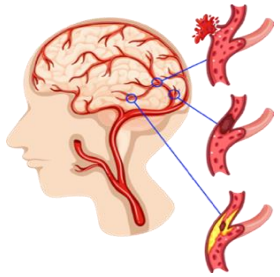
Process and outcome measures





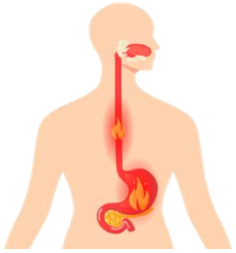
RESULTS!

I:
2016-2017
492,388 112-calls



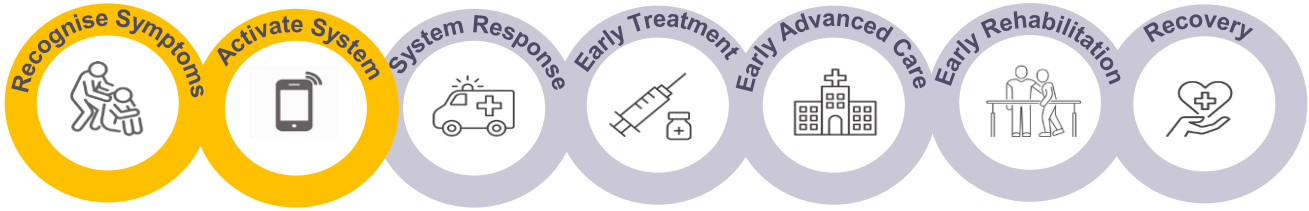
II:
2016-2017
19,592 admissions

III:
2007-2018
117,548 admissions



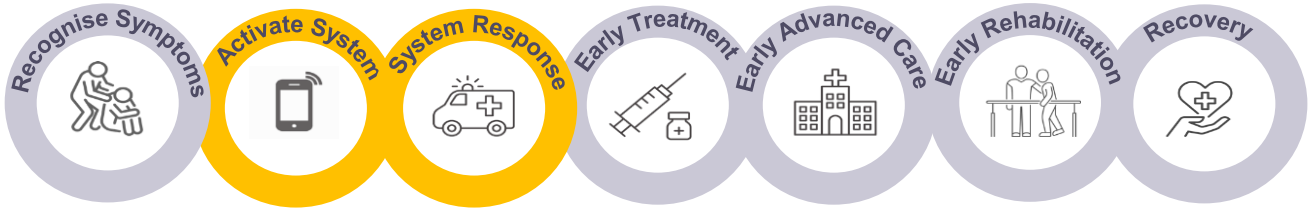
IV:
2004-2018:
5,767 admissions

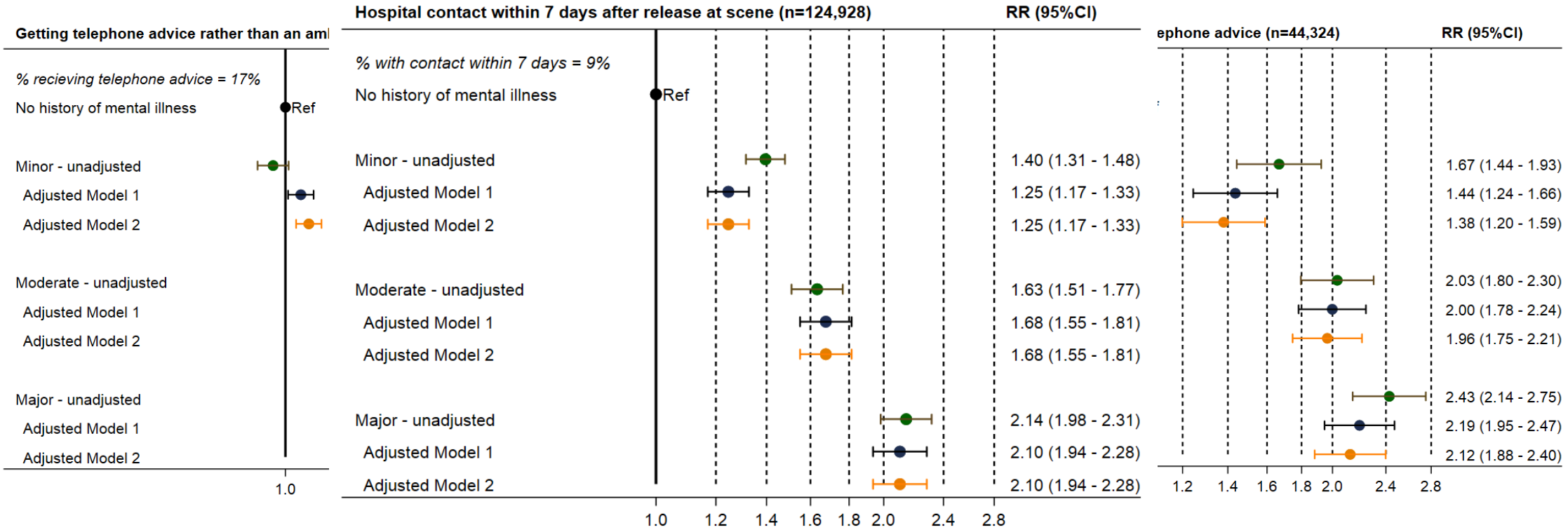
Symptoms when calling 112



None	**15% Unclear problem** 14% Chest pain 12% Accident
Minor	**16% Unclear problem** 13% Chest pain 13% Dyspnoea
Moderate	**15% Unclear problem** 13% Chest pain 9% Alcohol, intoxication, overdose
Major	**18% Unclear problem** 11% Chest pain 10% Alcohol, intoxication, overdose

Quality of prehospital care





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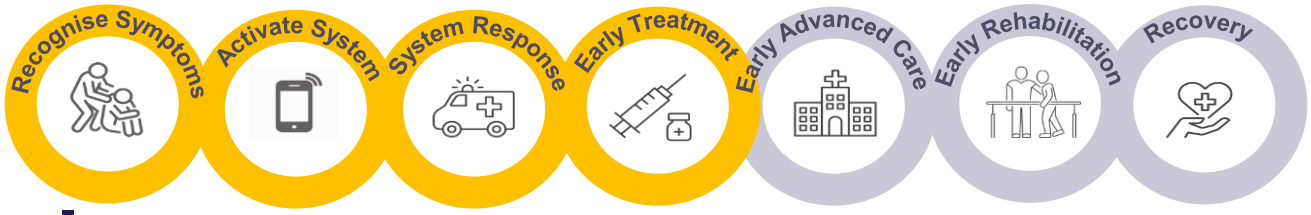
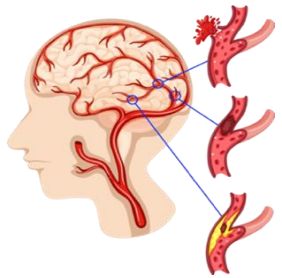
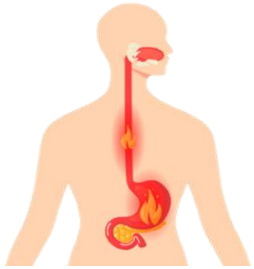
Time from symptom onset to hospital arrival

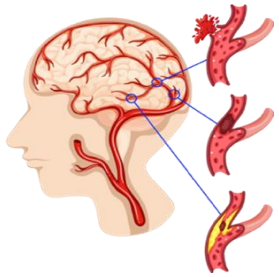


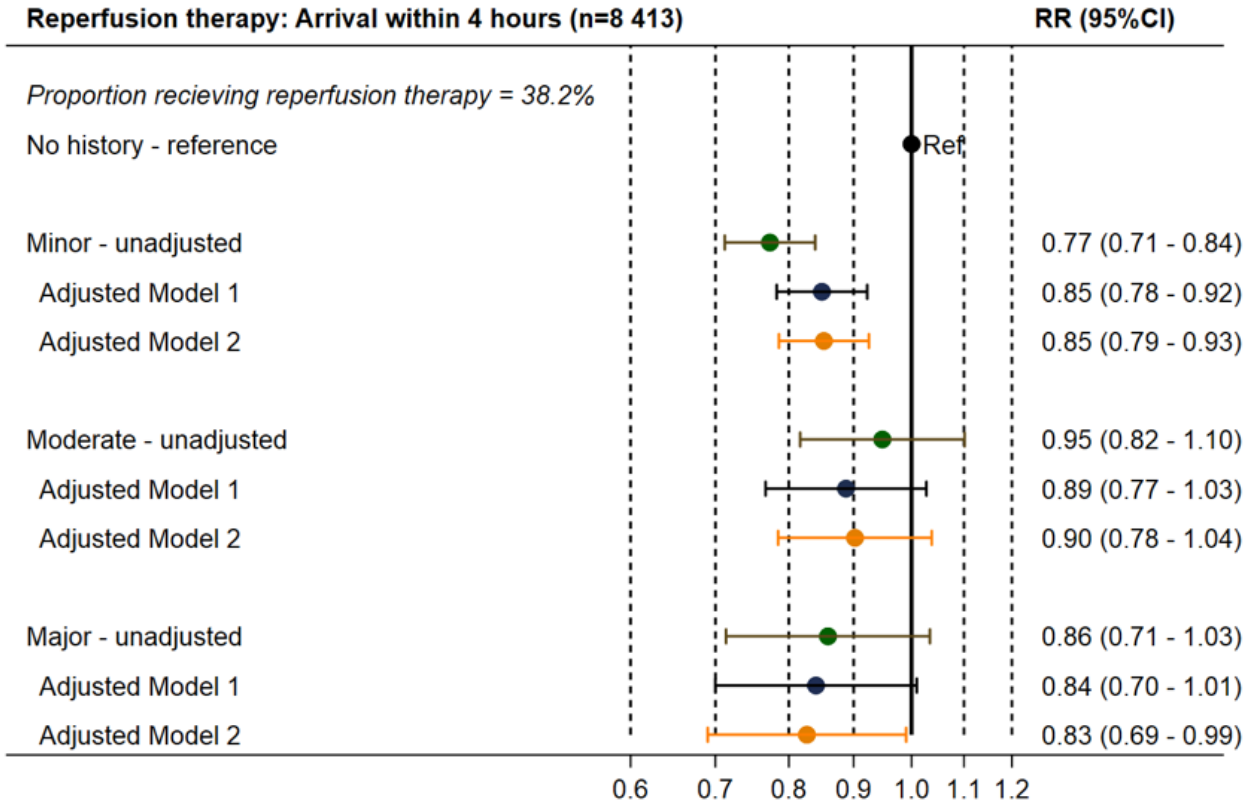




None		5h 44min
Minor		5h 30min
Moderate		6h 3min
Major		8h

Getting reperfusion therapy





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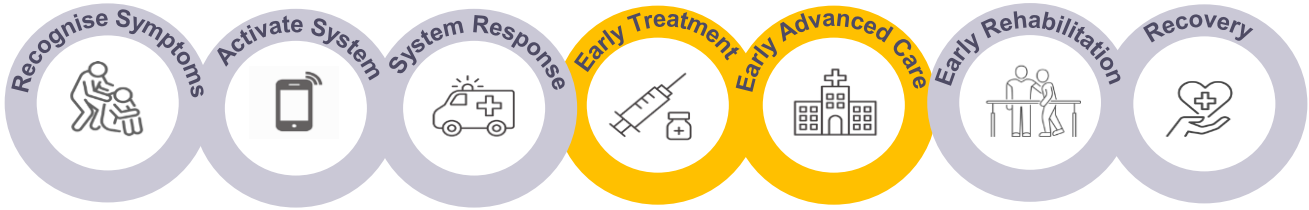
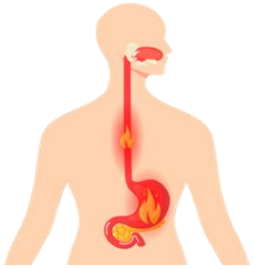
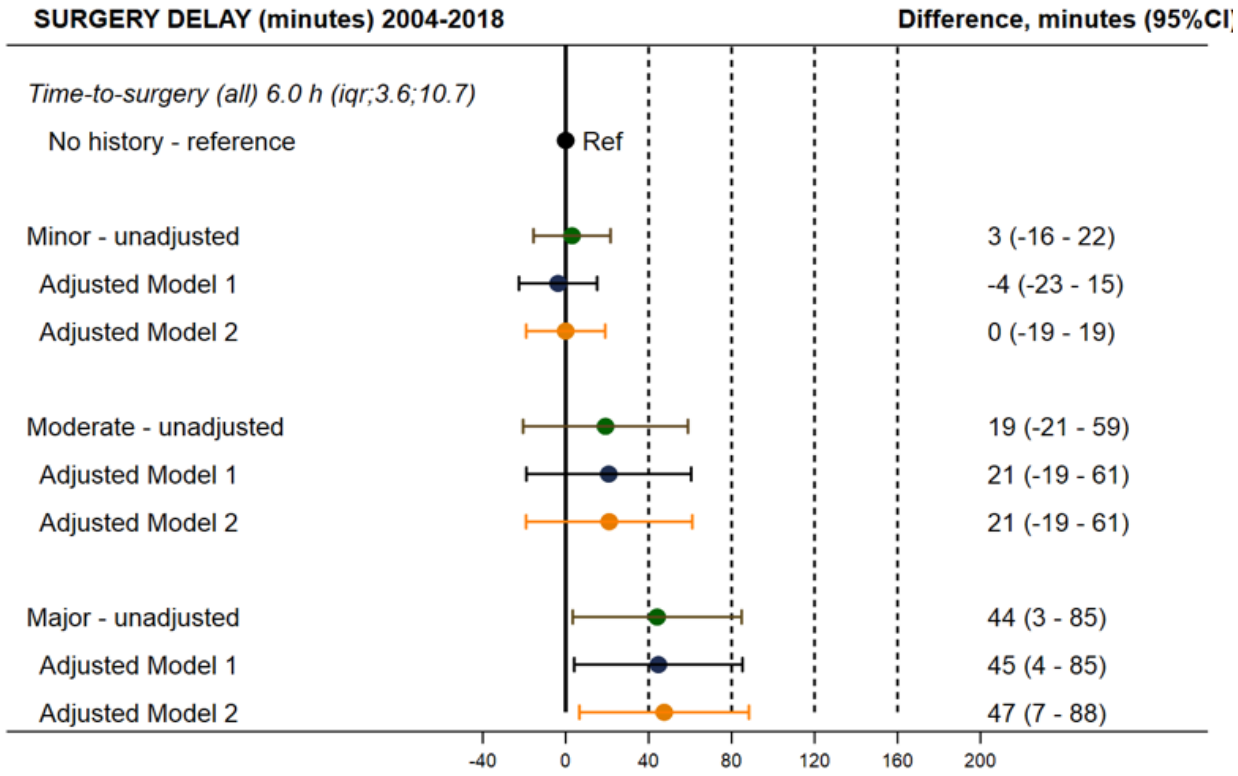
Getting fast surgery







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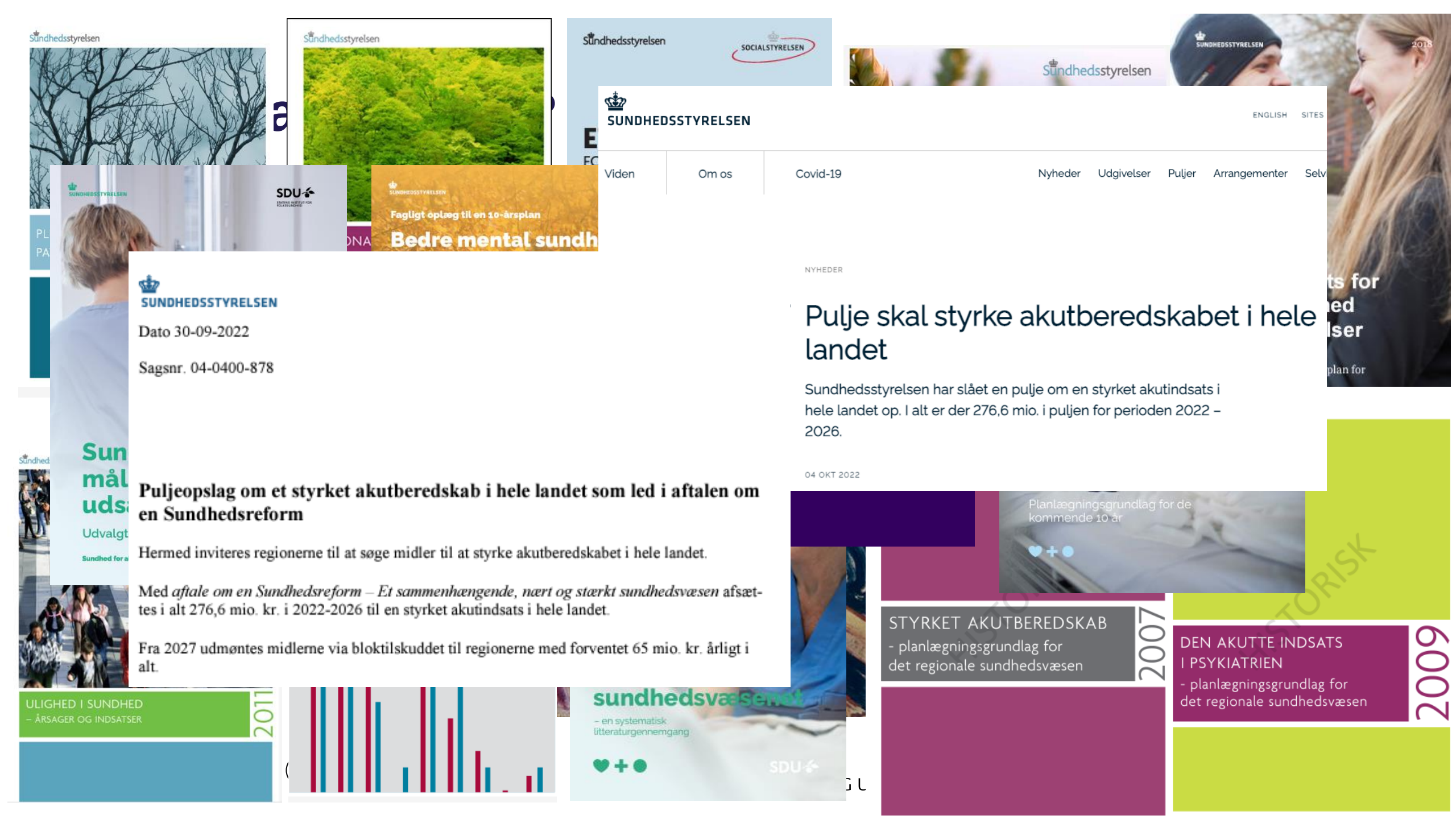
Sundhedsstyrelsen
SOCIALSTYRELSEN
SUNDHEDSSTYRELSEN
ENGLISH
SITES
Viden
Om os
Covid-19
Nyheder
Udgivelser
Puljer
Arrangementer
SDU
Fagligt oplæg til en 10-årsplan
Bedre mental sundh
SUNDHEDSSTYRELSEN
Dato 30-09-2022
Sagsnr. 04-0400-878
Puljeopslag om et styrket akutberedskab i hele landet som led i aftalen om en Sundhedsreform
Hermed inviteres regionerne til at søge midler til at styrke akutberedskabet i hele landet.
Med *aftale om en Sundhedsreform – Et sammenhængende, nært og stærkt sundhedsvæsen* afsættes i alt 276,6 mio. kr. i 2022-2026 til en styrket akutindsats i hele landet.
Fra 2027 udmøntes midlerne via bloktilskuddet til regionerne med forventet 65 mio. kr. årligt i alt.
NYHEDER
Pulje skal styrke akutberedskabet i hele landet
Sundhedsstyrelsen har slået en pulje om en styrket akutindsats i hele landet op. I alt er der 276,6 mio. i puljen for perioden 2022 – 2026.
04 OKT 2022
Udvalgt
Sundhed for a
Planlægningsgrundlag for de kommende 10 år
STYRKET AKUTBEREDSKAB
- planlægningsgrundlag for det regionale sundhedsvæsen
2007
DEN AKUTTE INDSATS I PSYKIATRIEN
- planlægningsgrundlag for det regionale sundhedsvæsen
2009
ULIGHED I SUNDHED
– ÅRSAGER OG INDSATSER
2011
sundhedsvæsenet
– en systematisk litteraturgennemgang
SDU

Conclusion

Major:
Long delays from onset of symptoms to hospital arrival.

Major and moderate:
Telephone advice only
Unclear problems

Mental illness:
Call 112 again within 24 hours
Hospital with 7 days after release at scene

Mental illness:
Less reperfusion therapy

Major:
Less timely surgery *and antibiotics*

Mental illness:
More recurrent stroke

Major and minor:
Higher mortality

1/3 had a history of mental illness

1/3 called EMS

Equal ambulance response times for ambulances with highest level of urgency

Equal on-scene times and transport times

Equal timing of imaging and time-to-thrombolysis

High and equal quality of specialized in-hospital stroke care, except mobilization

Acknowledgements

Supervisors

Søren Paaske Johnsen

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Nicolai Bang Foss

Peter Svenningsen

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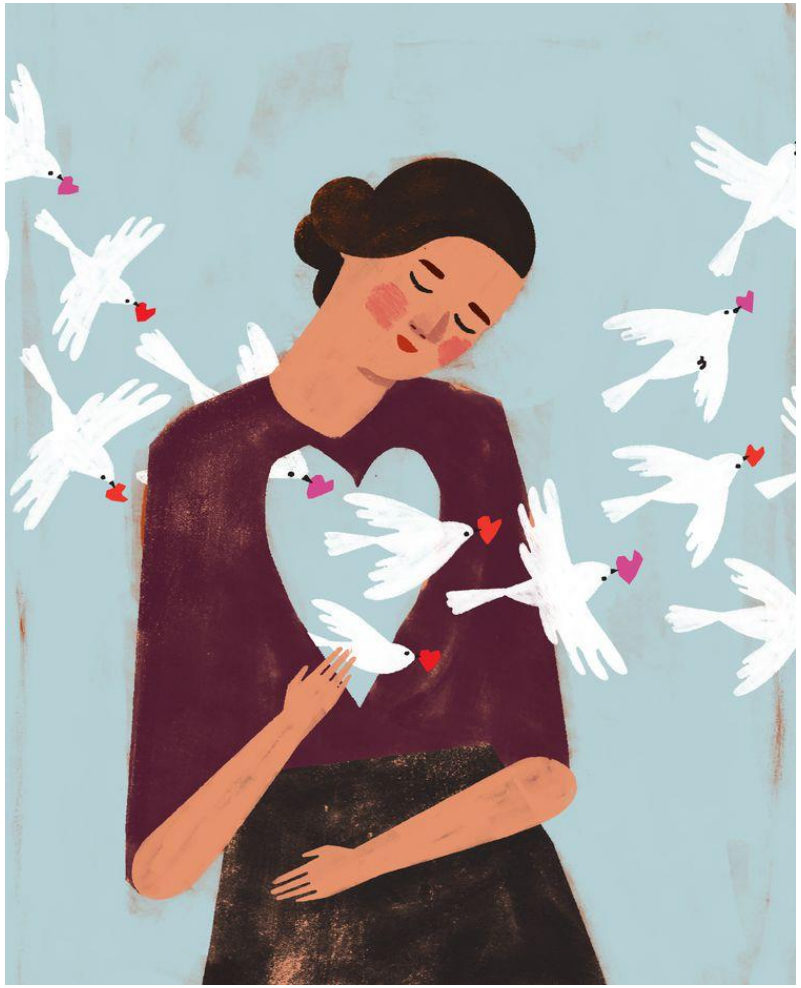
Psychiatry in the North Denmark Region

Puljen for Klinisk Psykiatrisk Forskning

Aase og Ejnar Danielsens Fond

Gangstedfonden

Region Nordjyllands Sundhedsvidenskabelig Forskningsfond.



Thank you

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Impact of COVID-19 on quality of care, activities and social inequalities on other diseases

Søren Valgreen Knudsen, Danish Center for Clinical Health Services

Institute for Healthcare Improvement

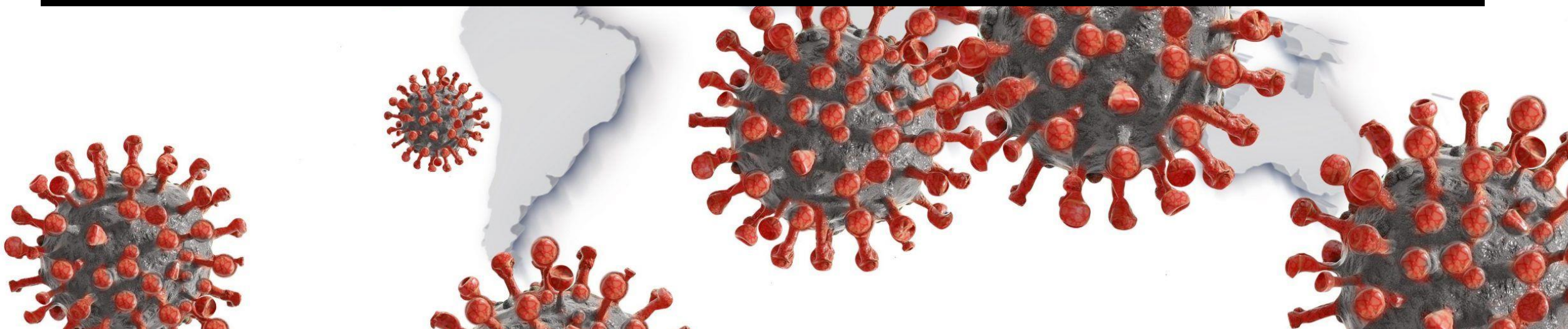
BMJ

Did COVID-19 contribute to health inequality?

Søren Valgreen Knudsen
MD, PhD, Postdoc

Direct Effects of the COVID-19 Pandemic

- The OECD has assessed that the COVID-19 pandemic represents the largest global health crisis in the last 100 years.
- COVID-19 has threatened the global economy, social welfare, and the health of the world's population.



Effects of the COVID-19 Pandemic

- **However, how did the pandemic affect the Danish healthcare systems ability to deliver high quality and equal care for the patients?**

The COVID-19 project in Denmark

- **The COVID-19 project in Denmark examined the effects of the COVID-19 pandemic on the diagnosis and treatment and quality of treatment of other diseases**

- **The project was carried out by The Danish Clinical Quality Program – National Clinical Registries (RKKP) in close collaboration with clinicians within each disease area**

RKKP

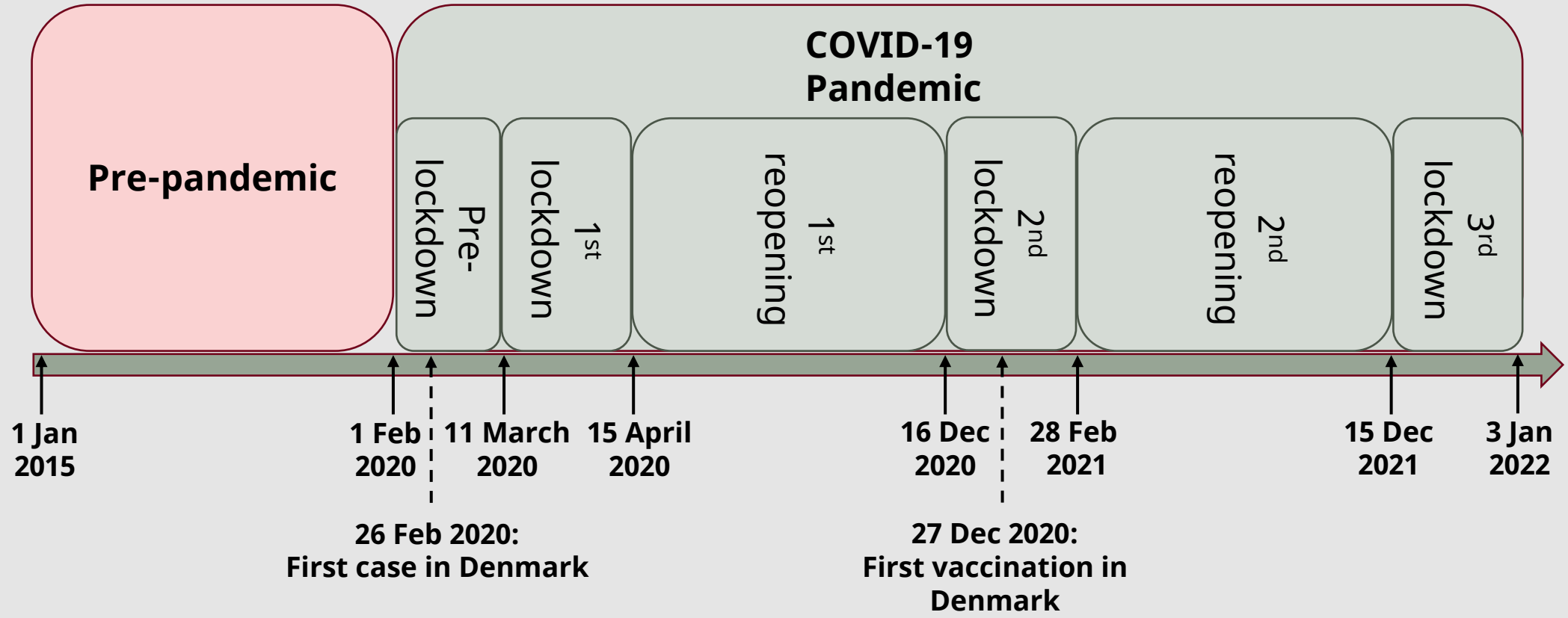
Overview of the study populations, databases, study periods and number of patients or hospital contacts

Main area	Disease area	Database	Period	Numbers
Emergency medicine	Emergency Hospital contacts	The Danish database for acute and emergency hospital contacts	01.02.2019 – 03.01.2022	3,908,304 contacts / 1,847,369 patients
	Stroke	Danish Stroke Registry	13.03.2019 – 27.01.2021	22,781 patients
Chronic Diseases	Chronic Obstructive Pulmonary Disease (COPD)	The Danish Register of Chronic Obstructive Pulmonary Disease	01.01.2015 – 15.12.2021	150,355 admissions 122,041 outpatients
Cancer	Breast cancer	Danish Breast Cancer Group	01.01.2015 – 30.06.2021	30,598 patients (women)
	Lung cancer	Danish Lung Cancer Registry	01.01.2018 – 31.08.2021	18,113 patients
	Colorectal cancer	Danish Colorectal Cancer Group Database	01.01.2018 – 31.12.2020	12,877 patients

Overview of the study populations, databases, study periods and number of patients or hospital contacts

Screening for cancer	Cervical cancer	Danish Quality Database for Cervical Cancer Screening	01.01.2015 – 30.09.2021	2,220,000 invitations / 1,466,353 patients (women)
	Breast cancer	Danish Quality Database for Breast Cancer Screening	01.01.2016 – 30.09.2021	1,828,791 invitations / 847,766 patients (women)
	Colon cancer	Danish Quality Database for Colon Cancer Screening	01.01.2018 – 30.09.2021	3,133,947 invitations / 1,928,725 patients
Palliation	Palliative care	Danish Palliative Care Database	01.01.2018 – 03.01.2022	69,696 referrals, 43,030 courses (admissions)
Psychiatry	Schizophrenia	The Danish Schizophrenia Registry	01.01.2018 – 30.06.2022	7,079 new cases, 64,055 admissions / 12,296 patients, 733,343 outpatient contacts / 24,243 patients

The pre-pandemic period and different phases of the pandemic



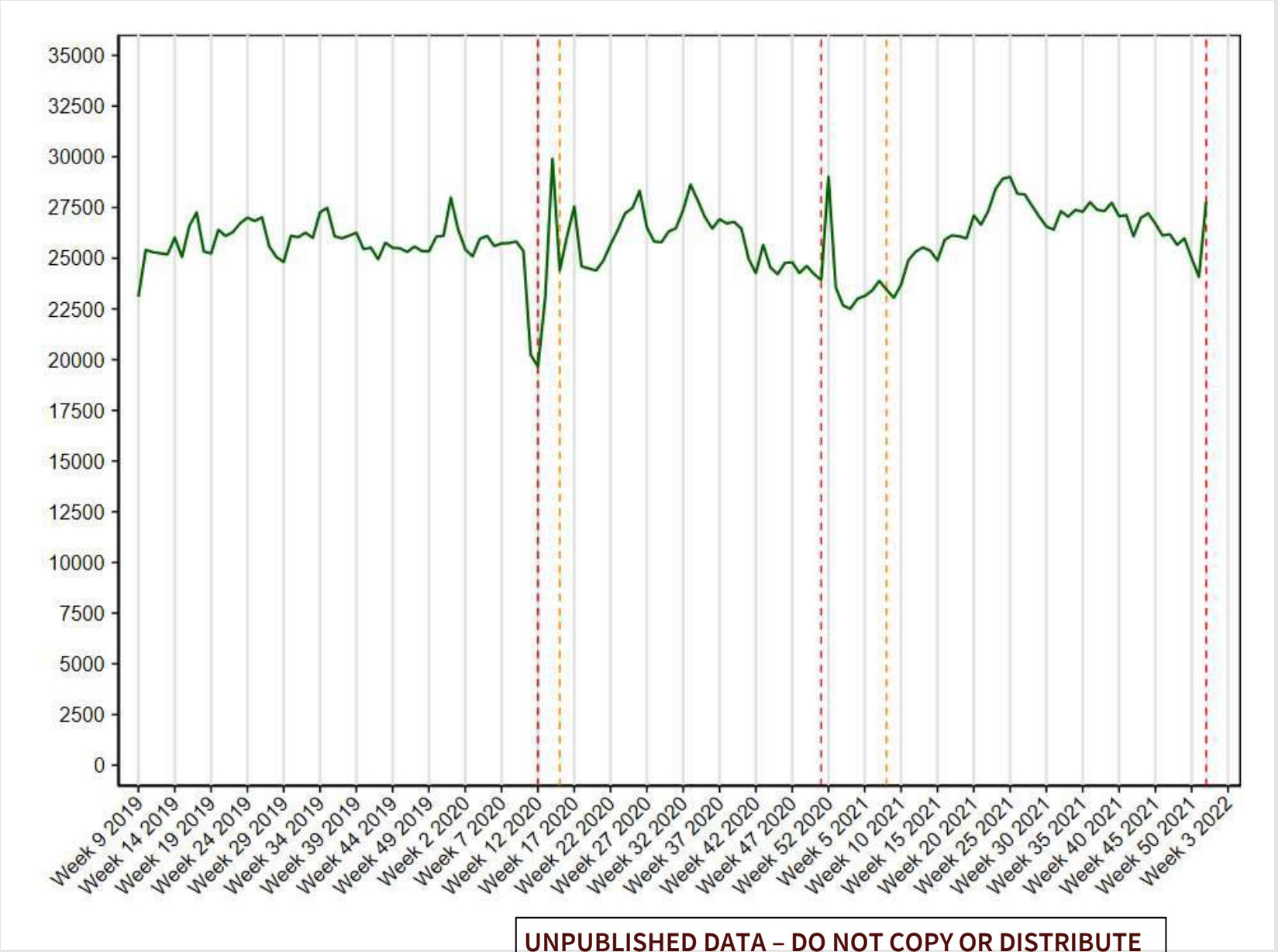
Methods

- **The activity was analyzed descriptively using numbers, proportions, and weekly averages.**
- **Quality of care and social inequality were analyzed both descriptively and using regression models, and the results were presented as prevalence ratios (PRs) with corresponding 95% confidence intervals (CI).**
- **The estimates were adjusted for sex, age, and seasonal variation.**
- **The PRs were estimated using a Generalized Linear Model (GLM) of the Poisson family with a log link.**

Unplanned hospital attendance

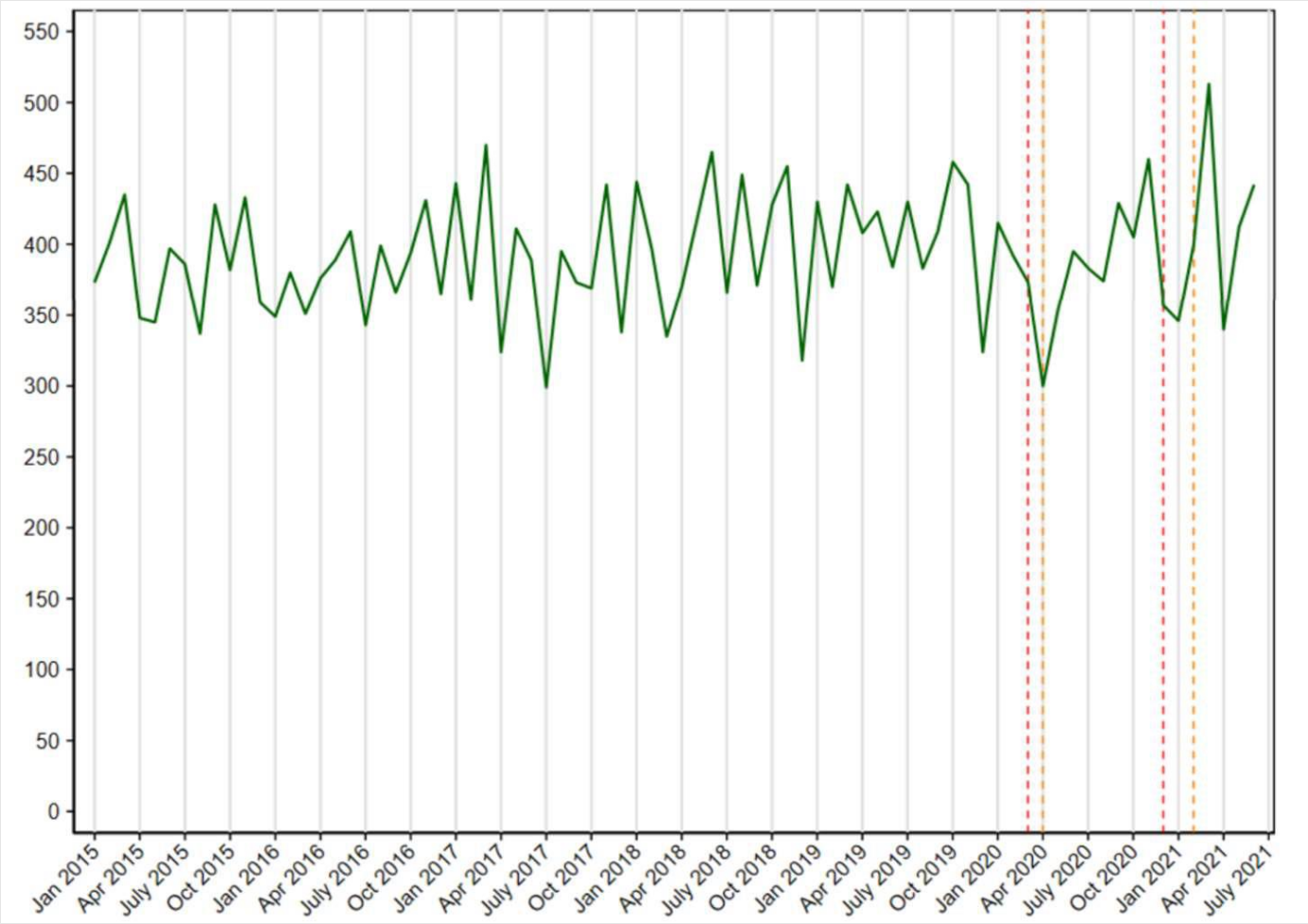
Vertical lines indicate the month of implementation of lockdown (red dotted) and reopening (orange dotted)

Before: 25,130
1st lockdown: 24,260
2nd lockdown: 24,500
During: 26,020



Number of newly diagnosed breast cancers

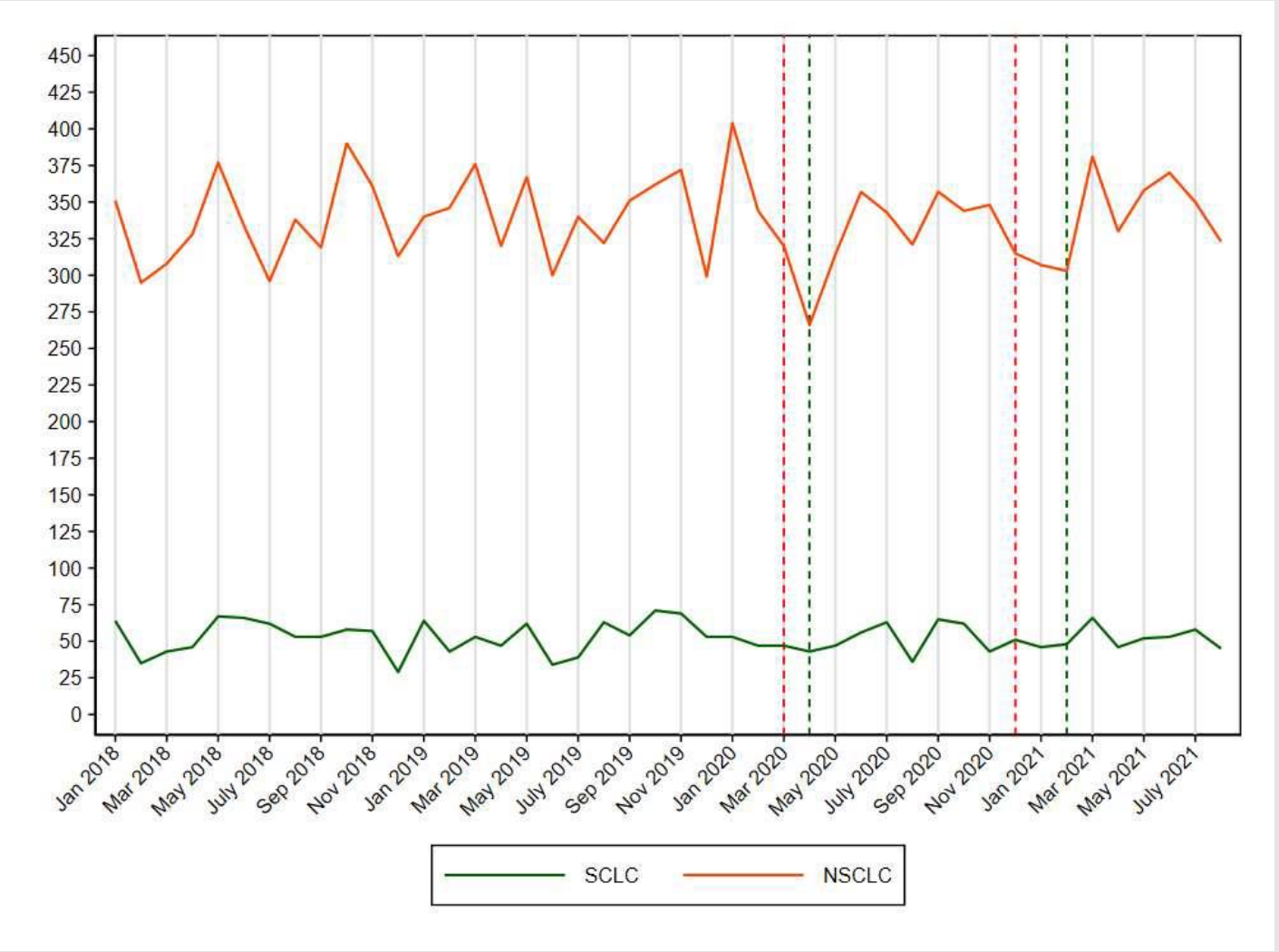
The number of women diagnosed with breast cancer decreased slightly (4%) in the pandemic compared to the pre-pandemic period



Number of newly diagnosed lung cancers

The number of patients diagnosed with lung cancer remained unchanged:

4.912 before vs.
4.942 after.



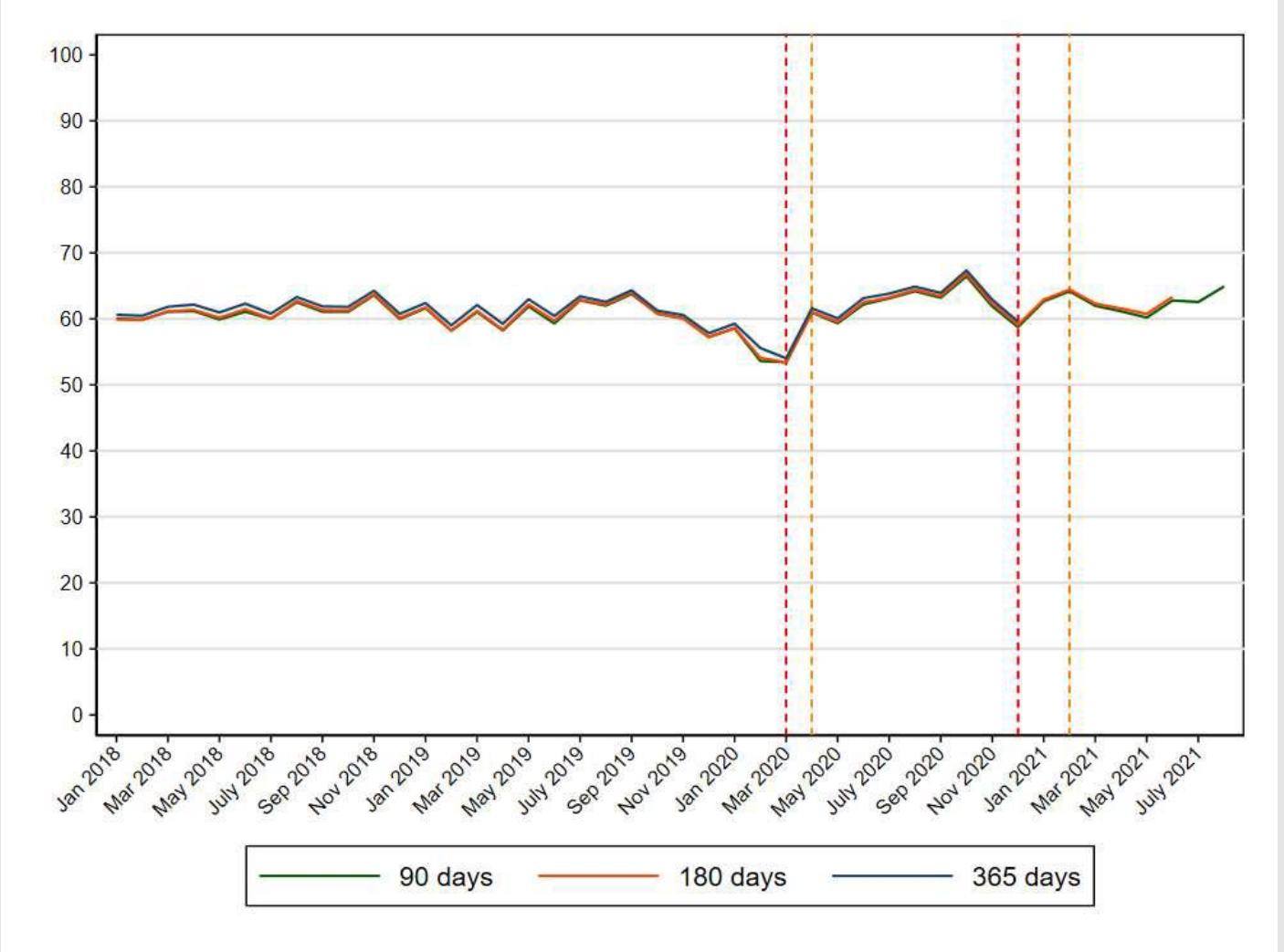
(2020 numbers compared to average in 2018-2019)

Participation in bowel cancer screening

Cervical-, colorectal-, and mammography cancer screening participation initially declined.

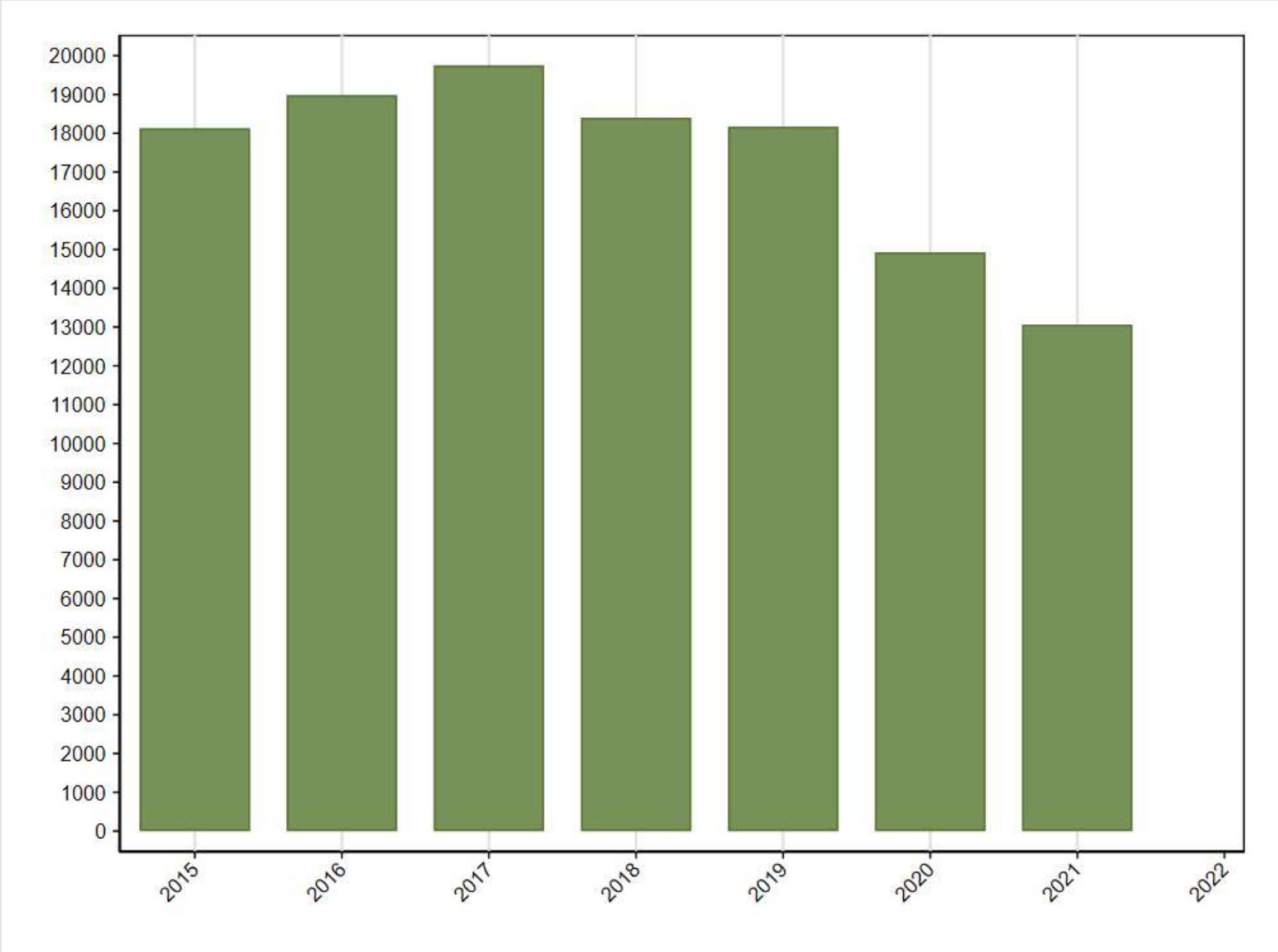
However, as the pandemic progressed and with longer follow-up, participation rates recovered.

In fact, from the 1st reopening onwards, participation in colorectal cancer screening was higher than in the previous years



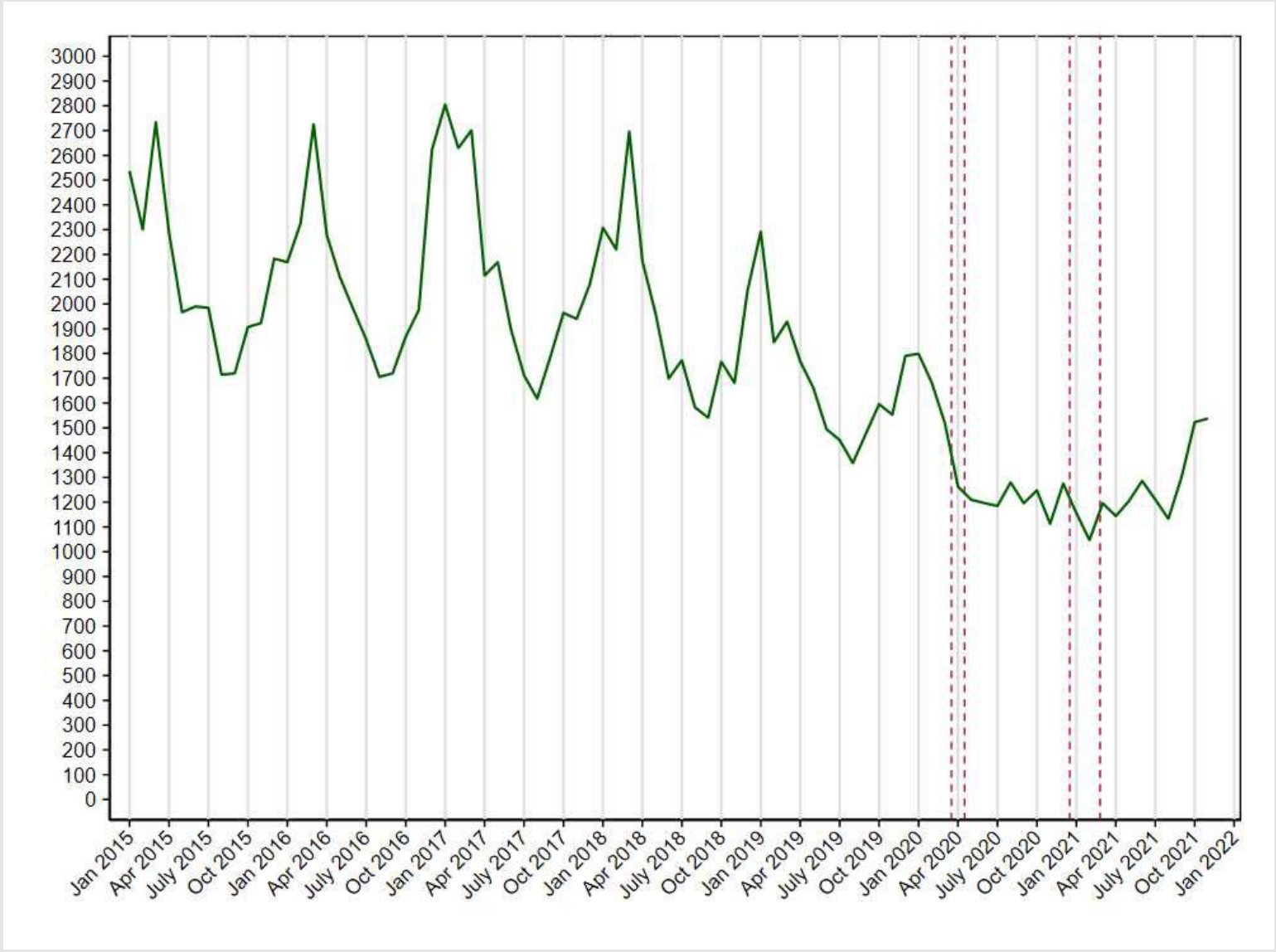
Outpatient Chronic Obstructive Pulmonary Disease (COPD) contacts

The number of emergency admissions fell 36% from an annual average of 23,937 to 15,335.



Inpatient Chronic Obstructive Pulmonary Disease (COPD) contacts

The number of outpatients fell 23% from an annual average of 18,648 to 14,310.



Quality of care - COPD

- **The quality of COPD treatment was mainly unchanged to slightly improved:**
  - **Fewer readmissions for acute exacerbations among inpatients** (PR=0.93; 95% CI: 0.90-0.96)
  - **Fewer outpatients with two or more exacerbation within a year** (PR=0.82; 95% CI: 0.80-0.84)

Quality of care – breast cancer

- **The quality of breast cancer treatment overall was stable**
  - **A higher proportion of patients receiving neoadjuvant chemotherapy** (PR=1.15; 95% CI: 1.06-1.24)
  - **There were no significant differences in the type of primary surgery**

Quality of care – colorectal cancer

- **The quality of colorectal cancer treatment improved**
  - **More treated with a curative aim** (PR=1.02; 95% CI: 1.01-1.03)
  - **More being operated on by specialists** (PR=1.07; 95% CI: 1.06-1.08)
  - **Fewer emergency operations** (PR=0.77; 95% CI: 0.66-0.91)
  - **A decrease in the proportion of patients waiting more than 28 days for the start of chemotherapy after surgery** (PR=0.84; 95% CI: 0.78-0.90)
  - **Proportion of patients dying within 90 days from operation did not change significantly** (PR=1.02; 95% CI: 0.84-1.23)

Quality of care – lung cancer

- **The quality of lung cancer treatment remained consistent:**
  - **No change in proportion of patients undergoing surgery** (PR=1.00; 95% CI: 0.94-1.05)
  - **No changes in the proportion of patients who had surgery** (PR=1.00; 95% CI: 0.94-1.05)
  - **No changes in proportion of patients or who died within 90 days of diagnosis of lung cancer** (PR=1.02; 95% CI: 0.96-1.08)

Quality of care – schizophrenia

- **Remained unchanged, by proportion of patients who:**
  - **Underwent a diagnostic interview** (37.0 vs 37.9%; PR=0.87; 95% CI: 0.68-1.12)
  - **Underwent family intervention** (57.7 vs 57.1%; PR=0.97; 95% CI: 0.81-1.15)
  - **Were screened for suicide risk** (55.2 vs 56.8%; PR=0.96; 95% CI: 0.97-1.09)
  - **No changes in the proportion of readmissions** (35.9 vs 35.0%; PR=0.97; 95% CI: 0.88-1.07)
  - **A small but statistically significant proportion had their social support needs investigated** (29.8 vs 29.6%; PR=1.62; 95% CI: 1.10-2.40)

Changes in use and participation in health services during the pandemic compared to the pre-pandemic period based on socioeconomic factors

	Emergency hospital contacts	COPD outpatient	COPD inpatient	Cervical Cancer Screening	Breast cancer screening	Bowel cancer screening	Breast cancer	Bowel cancer	Lung cancer
Ethnicity (migrant)	↓	→	↓	↓	↓	↑	↑	↓	→
Marital status (living alone)	↓	↓	↓	→	→	→	→	→	→
Education (short)	↓	↓	↓	↓	→	→	↓	→	→
Income (low)	↓	N/A	N/A	↓	↓	↓	↓	↑	↓

Conclusions

- **The Danish healthcare system has demonstrated a high degree of resilience during the COVID-19 pandemic.**

Conclusions

- **Despite the challenging circumstances, hospital activity remained largely unaffected, and the quality of diagnosis and treatment in several healthcare areas remained high.**

Conclusions

- **This resilience reflects the system's ability to maintain essential functions and meet the healthcare needs of the population.**

Conclusions

- **However: Social disparities were observed in all sub-studies, with the pandemic exacerbating social inequalities in health.**

Conclusions

- **Immigrants, people living alone, those with short education, and low-income individuals unfortunately had a negatively impacted pattern of healthcare contact during the pandemic.**

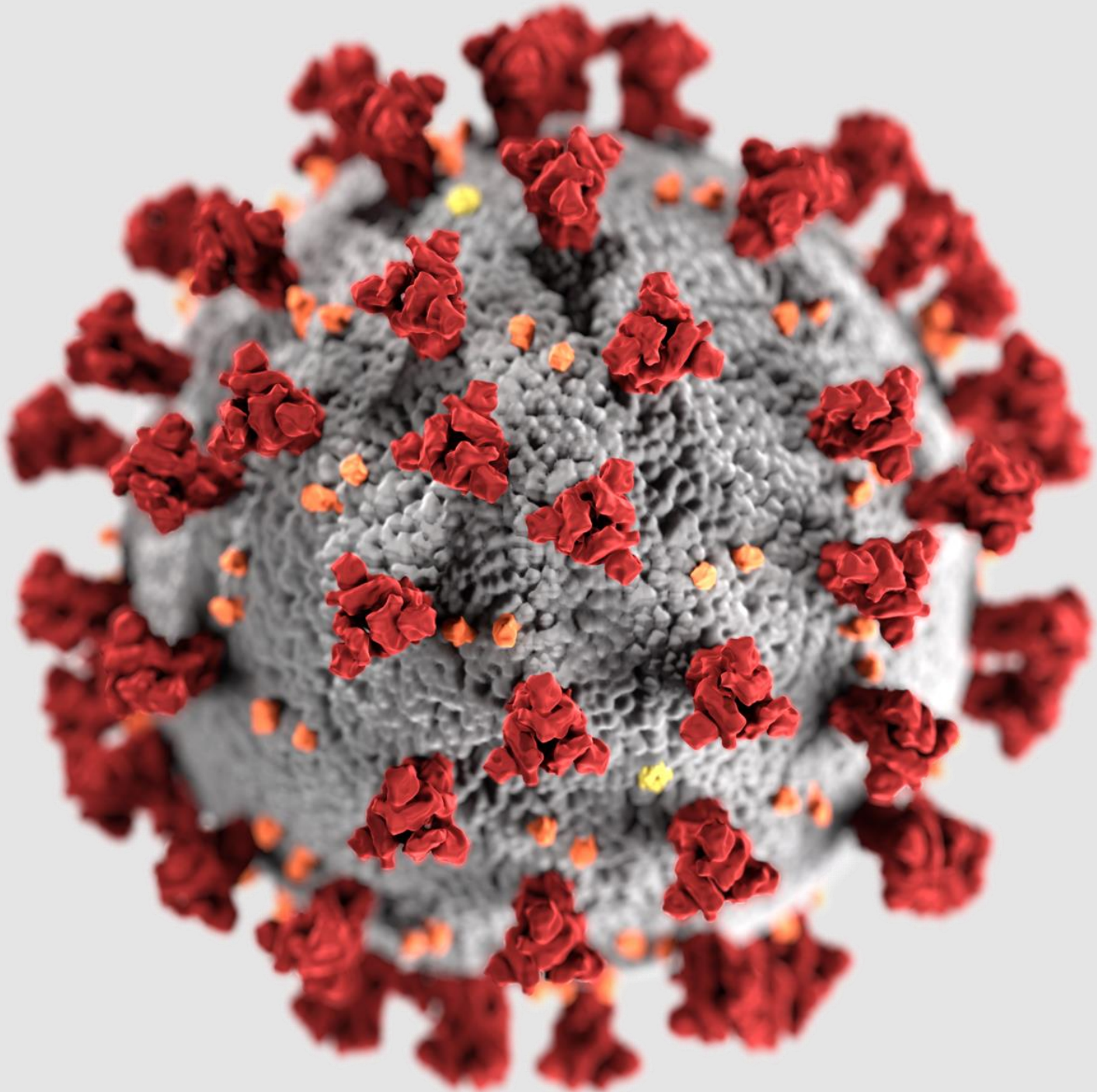
Conclusions

- **COVID-19 was a magnifying glass for inequalities in the Danish Health care system**

Thank you for your attention

Contact:

Soeren.k@rn.dk



International Forum on QUALITY & SAFETY in HEALTHCARE COPENHAGEN

High quality care for older patients with frailty – building a national clinical database

Lone Winther Lietzen, Aarhus University Hospital

Institute for Healthcare Improvement

BMJ

High quality care for older patients with frailty – building a national clinical database

Lone Winther Lietzen

Geriatrician, PhD, Clinical Associate Professor

Department of Geriatrics, Aarhus University Hospital

DSG
Dansk Selskab for Geriatri

rkkp
regionernes kliniske kvalitetsudviklingsprogram

AARHUS UNIVERSITY HOSPITAL

The Danish Quality Database for Older Adults with Frailty, DANFRAIL

Clinical experience → deficiencies and variation

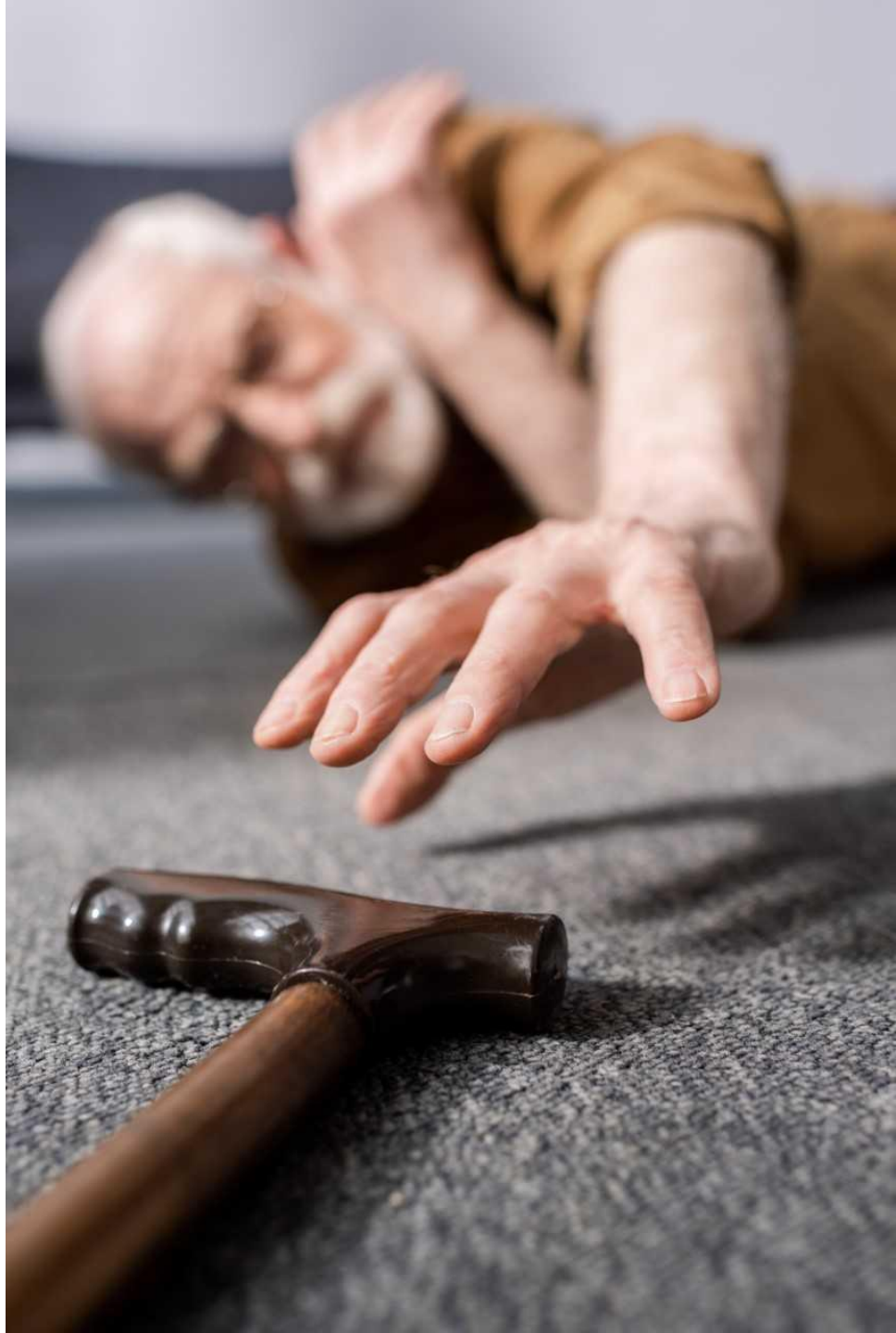
Hale *et al*, 2019

Frailty → functional loss, high mortality, Length-of-Stay, re-admissions, long-term care facility

Aucoin et al, 2020
Fehlmann et al, 2022

Inter-disciplinary and inter-sectoral approach

Danish Geriatric Society (2019)



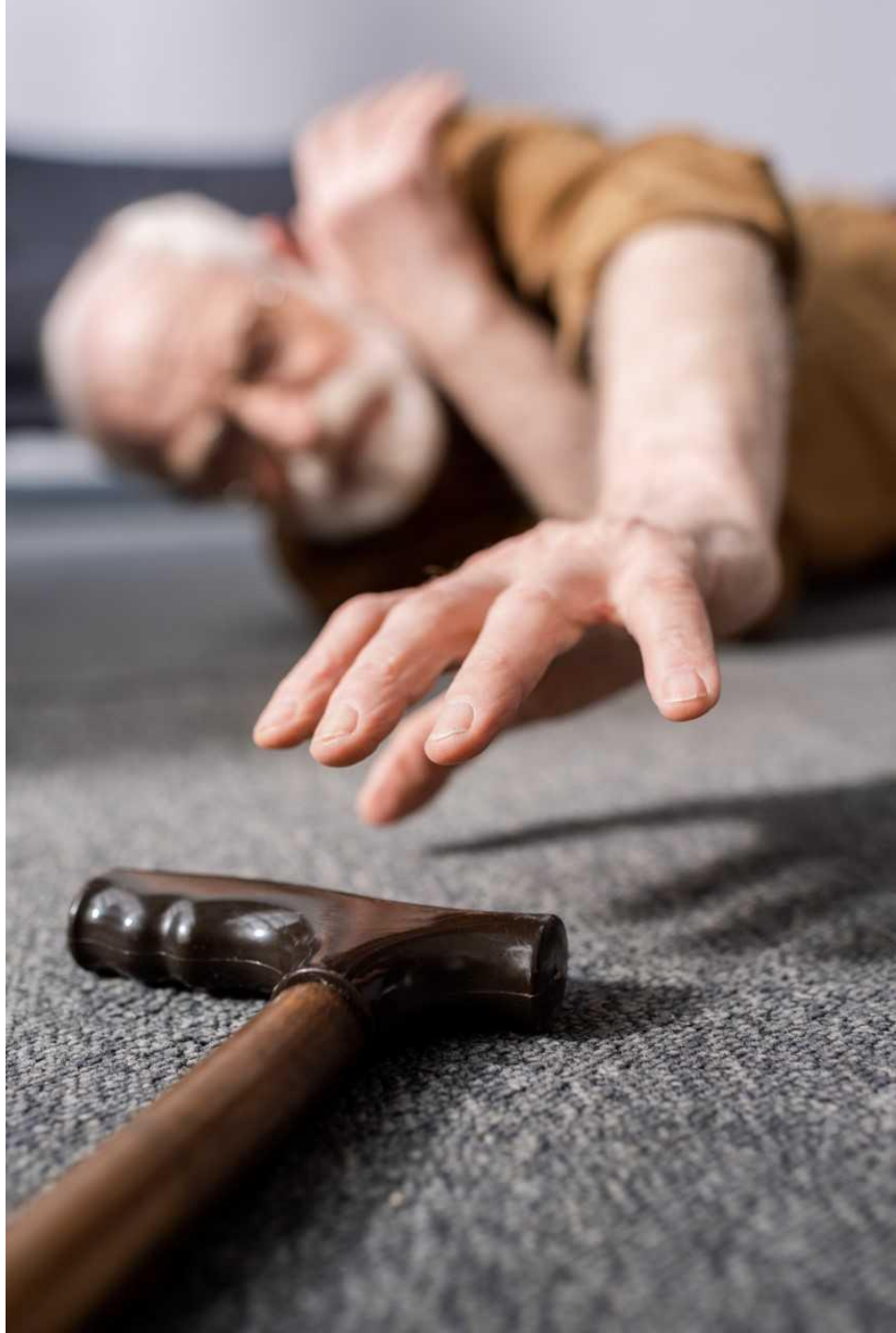
The Danish Quality Database for Older Adults with Frailty, DANFRAIL

Vision:

Identify variation and improve quality of care to all older patients no matter where they meet the healthcare system

Kedar Mate: Think big – Start small

Improvement starts with data



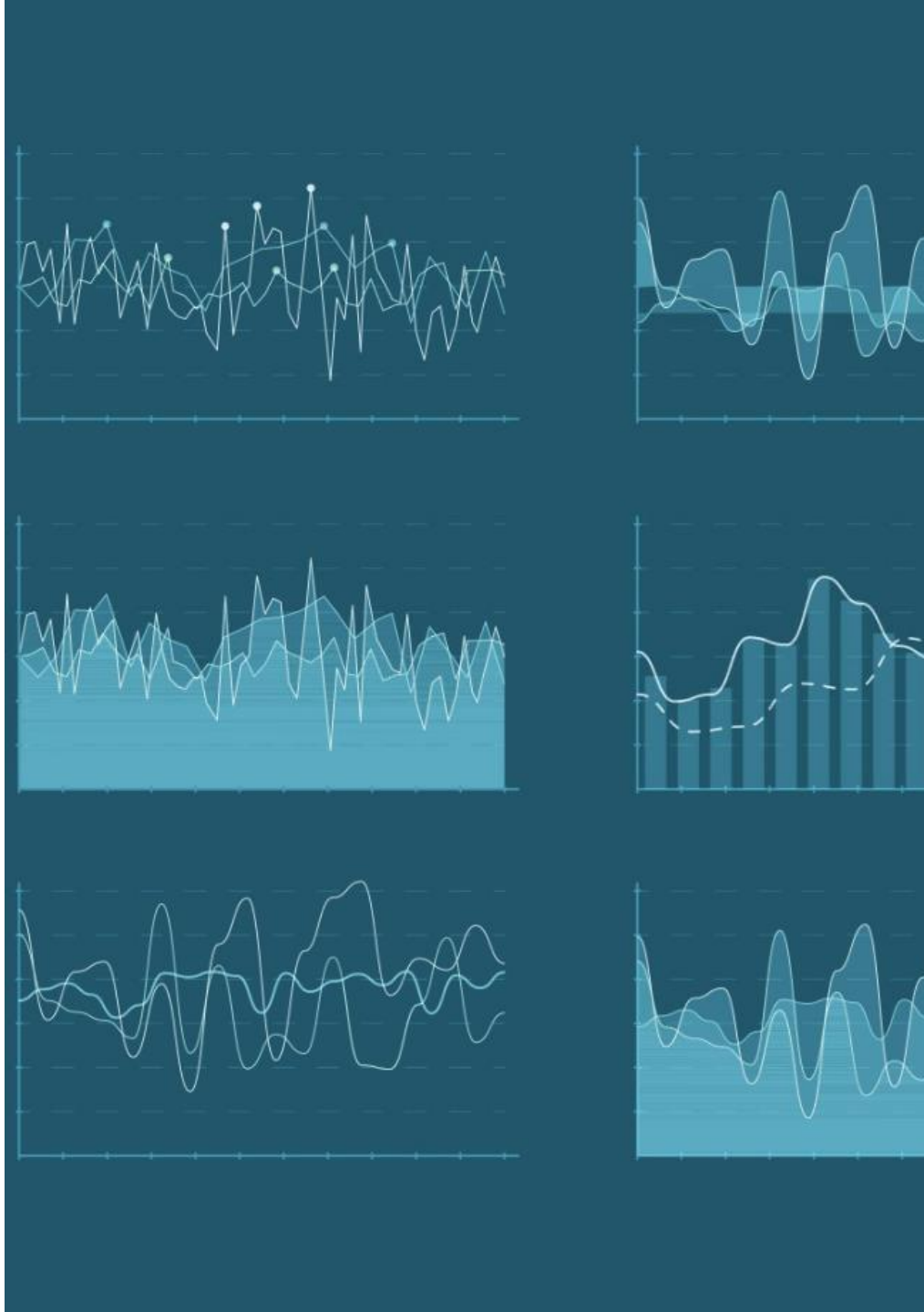
Danish quality databases

85 clinical quality databases:

- *Not* for control or monitoring of clinicians

- **Data is basis for dialog with clinicians to improve patient outcome**

Run by the Danish Clinical Quality Program in collaboration with clinicians and patients/relatives



THE EPIDEMIOLOGIST'S DREAM: DENMARK

(Science, 2003)

(Science, 2000)

When an Entire Country is a Cohort

Science Contents News Careers Journals

SHARE

NEWS FOCUS | EPIDEMIOLOGY

The Epidemiologist's Dream: Denmark

Lone Frank*

+ See all authors and affiliations

Science 11 Jul 2003:
Vol. 301, Issue 5630, pp. 163
DOI: 10.1126/science.301.5630.163

Letters PDF

planners of a U.S. study of children's health could work in an ideal world, it might be Denmark. Epidemiologists there finished enrolling a cohort of 100,000 pregnant women into a mother-and-child research project last September and expect to finish collecting data from the children over the next year. The entire survey—which is large for this country of 70,000 annual births—is to be completed in 2005 for about $15 million, a tiny fraction of what the cost would be in the United States.

When an Entire Country Is a Cohort

data on its citizens than any other country. Now this vast array of statistics even more useful

For years, any wo... had to accept more ... For some unknown ... elevated risk for bre... was what several sm... had suggested before... demiologist at the Sta... Copenhagen, underto... ever to explore the l... leagues obtained recor... in Denmark's nationa... then checked how many... were listed in the Dani... Their foray into the two... surprising result: As th... *New England Journal of* ... there appears to be no c... abortion and breast cancer.

Their success underscor... trove of data the Danish go... cumulated on its citizenry, w... about 5 million people. Oth... countries have created pow... systems, but Denmark has ea... nent reputation for possessing ... plete and interwoven collectio... touching on almost every aspe... Danish government has compil... databases, some began in the 1... erything from medical record... economic data on jobs and sal... makes the databases a plum rese... the fact that they can all be linke...

...ortion ... fetus: ... ed an ... that ... dies ... epi- ... in ... ort ... ol- ... en ... r, ... n

digit personal identification number, called the CPR, that follows each Dane from cradle to grave. According to Melbye, "our registers allow for instant, large cohort studies that are impossible in most countries."

Beauty in numbers. These Danish twins starred in a variety show at the turn of the 20th century; now it's their medical records, part of a database, that are in demand.

But Melbye and other scientists think they ... ne. They argue that not enough money is ... ng spent on maintaining and expanding ... sting databases, and they say that red tape ... mpering studies that require correlation ... alth and demographic data. The problem ... t, while they have unfettered access to ... than 80 medical databases maintained ...

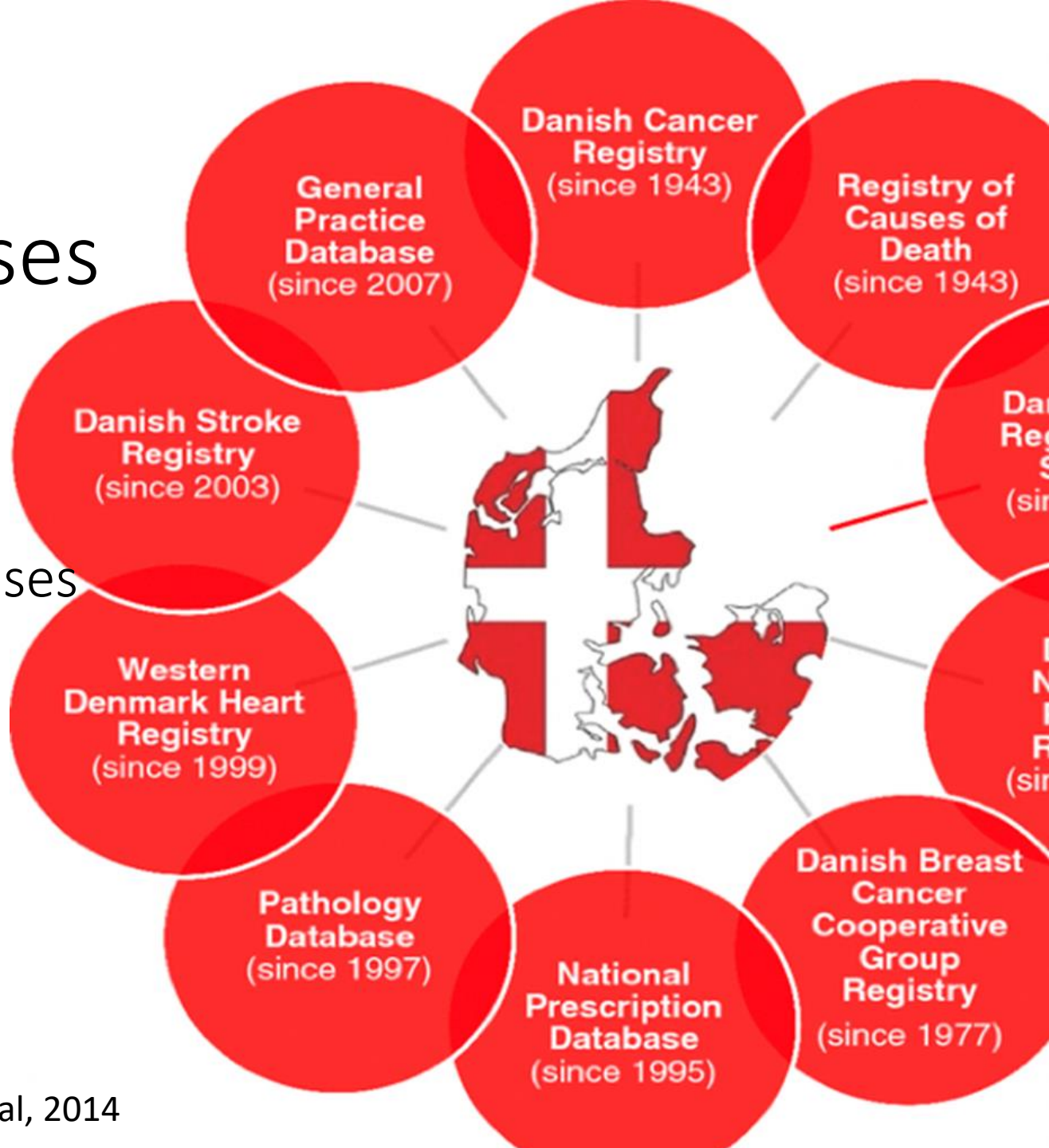
...ing more th... older. Chri... genes abou... man longe... by the unr... the Danish ... The he... able for p... smaller st...

EPIDEMIOLOGY

IDEAL PLACE FOR DATA-BASED IMPROVEMENT WORK

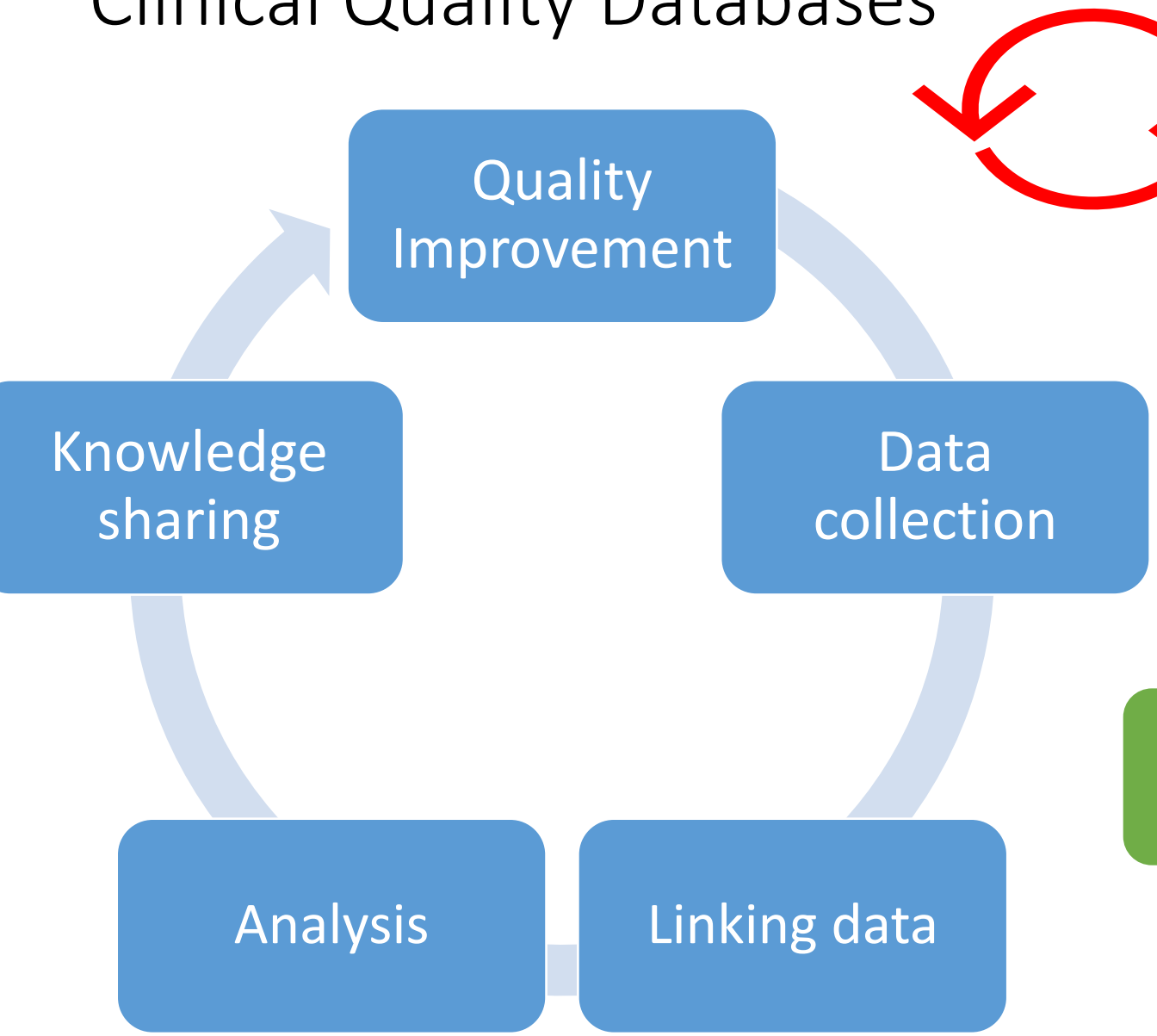
National quality databases

- Individual-level linkage across databases
- Lifetime follow-up
- Universal taxfunded healthcare



Schmidt et al, 2014

Clinical Quality Databases and Clinical Guidelines



Learning healthcare system

Evidence based medicine

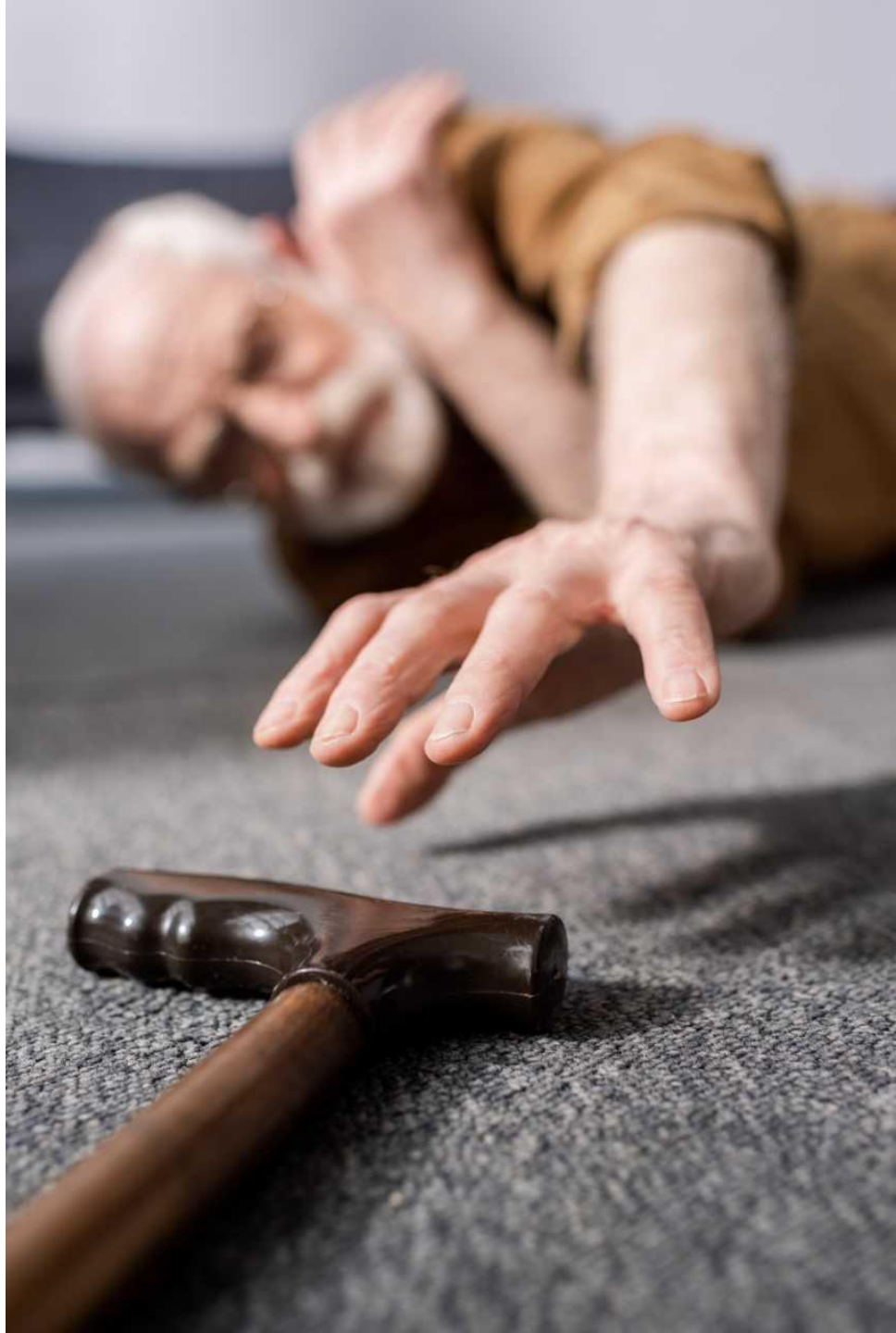
Method

Co-design:

Workshop (2021)
Database team and steering commitee (2022) – interdisciplinary, intersectoral, and with relatives and DaneAge Association

Consensus meetings to develop indicators:
- Patient journey mapping
- Comprehensive Geriatric Assessment

Donabedian framework:
- Process indicators
- Structure indicators
- Outcome indicators



Population

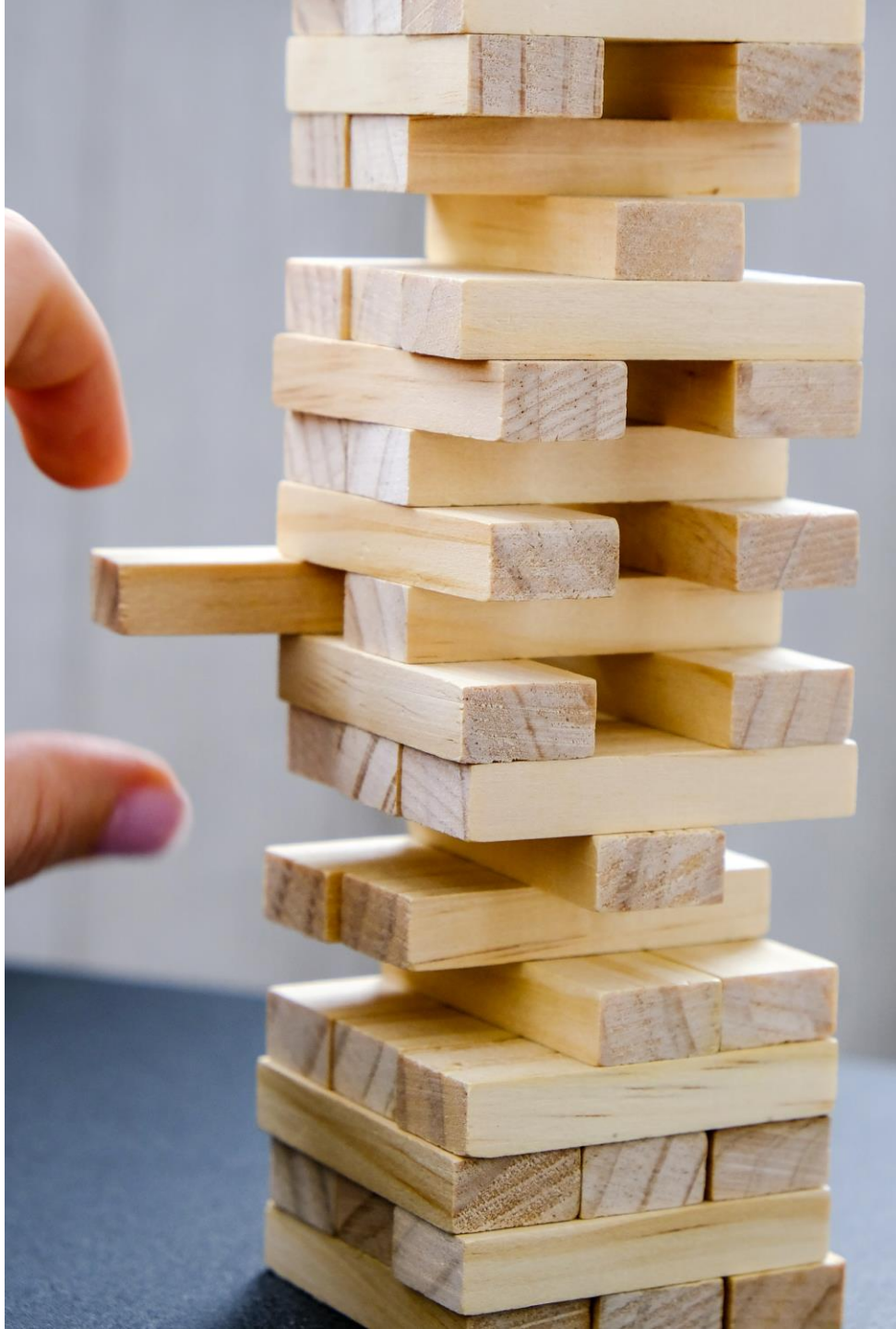
Population:
Patients ≥80 old

Setting:
Departments with acute admission in Denmark

Approximately 180.000 contacts/year in ≥80 old

Frailty estimated between 35% - 67%
→ 63.000 – 120.000 contacts

Aucoin et al, 2020
RKKP explorative data, 2022



Indicator 1: Clinical Frailty Scale (CFS)

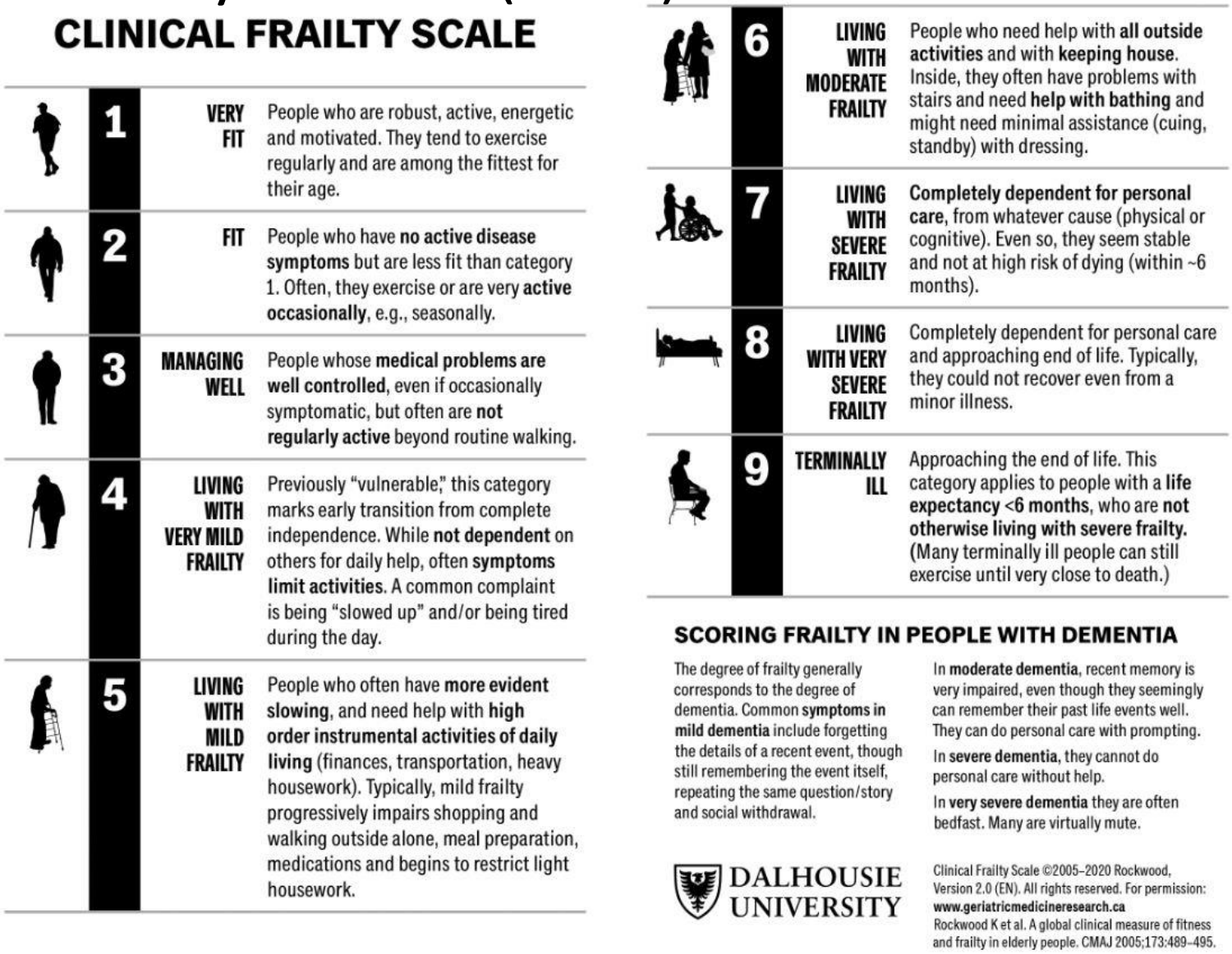
Nine-level judgement based assessment

Baseline health status
14 days prior to admission

Validated in Danish

Strong inter-reliability

CFS 5-8



Domains currently worked on

- Medications review → inappropriate use
- Nutritional assessment → malnutrition
- Functional capacity → inactivity and sarcopenia
- Basic needs → underlying reasons for admission
- Social network and cognition → social situation
- Communication and coherence

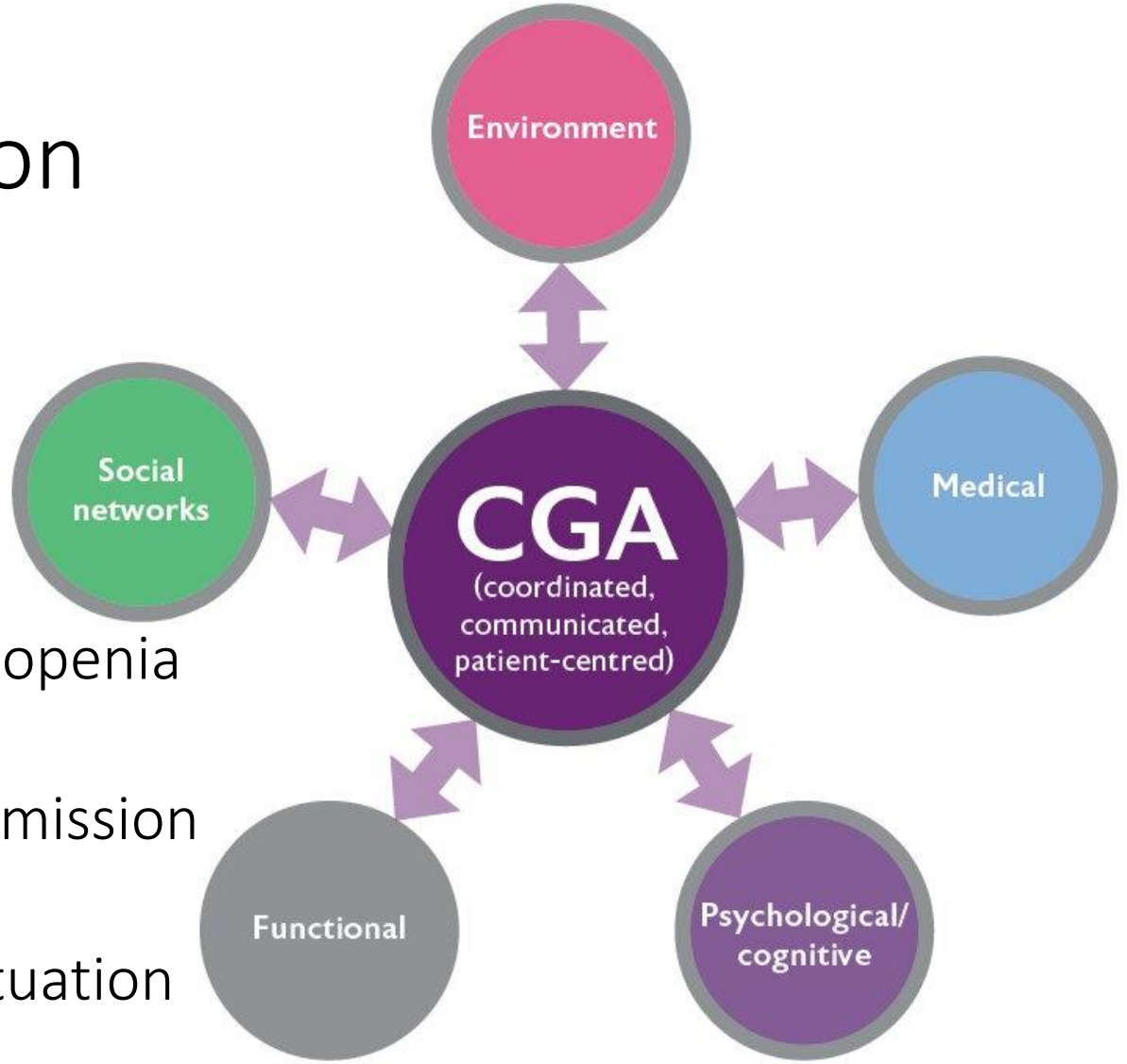


Illustration borrowed from: The Silver Book II

Hope: detangle complexity to improve care


Questions?

International Forum on QUALITY & SAFETY in HEALTHCARE COPENHAGEN

Weekly medical rounds in psychiatric wards improve identification and treatment of physical illness in a cohort of patients with severe mental illness

Julie Mackenhauer, Danish Center for Health Services Research

Institute for Healthcare Improvement

BMJ

LIAISON SOMATIC

Medical ward rounds in psychiatric wards

Julie Mackenhauer

MD PhD

AALBORG UNIVERSITY
DENMARK

PSYCHIATRIC HOSPITAL

AALBORG UNIVERSITY HOSPITAL

DANISH CENTER FOR
CLINICAL HEALTH SERVICES RESEARCH

What did we do?

Integrated care

2015

Joint funding
Shared values and vision
Shared guidelines
Communication and data
Navigator
Multidisciplinary
Clear concept
Evaluation and research

Budgetaftale 2015
– Forandringsvilje og fremtidssikring

I gode hænder hos
REGION NORDJYLLAND

Udvidelser		Budgetvirkning 2015	
3.1	Udrednings- og behandlingsret (tidligere 4.1)	12,000	
3.2	Nye retningslinjer fra SST om psykosocial indsats ved beredskabshændelser (tidligere 4.2)	0,685	
3.3	Udbredelse af OPUS til Klinik Nord i Brønderslev (tidligere 4.3)	3,600	**)
3.4	Somatik og Psykiatri - overdødelighed (tidligere 4.4)	0,500	
3.5	Etablering af sengeafsnit med 10 sengepladser til patienter med spiseforstyrrelse (tidligere 4.5)	0,000	
3.6	Styrkelse af den ambulante behandling til udviklingshæmmede med psykiske lidelser (tidligere 4.6)	1,620	
3.7	Psykiatrisk deltagelse ved tvangsindlæggelser - Udrykningstjeneste (tidligere 4.7)	0,500	
3.8	Styrkelse af forskningsindsatsen i Psykiatrien - NYT som selvstændigt forslag	2,000	
3.9	Forstærket samarbejde med patienter og pårørende - NYT forslag	2,500	**)
3.10	Overhead (it, telefoni, kørsel, kurser og andre personalerelaterede udgifter) - NYT forslag	0,000	
3.11	Lokaleleje i forbindelse med udbygning af behandlingskapaciteten - NYT forslag	0,000	
3.12	Reservation af pulje til tvang - NYT forslag	5,101	
3.13	Flere og bedre kompetencer - NYT forslag	4,048	
3.14	Udgiftsafdækning vedr. interregional og privat behandling - NYT forslag	0,000	
ny	Pulje til [illegible]	4,500	
ny	Liaison-somatik	1,100	
ny	Rekruttering	1,000	
ny	RehabiliteringsCenter for Flygtninge	0,675	
Udvidelser i alt		**39,829**	

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Integrated care

2015 2017

Peerboard

Staff Psych

Navigator
Project leader

Staff
Medical

Steering group
Directors

Co-creation

2015 2017

”Even the secretary tells me not to come, when I call my GP…”

”My psychiatrist normally deals with my mind – now he is doing a gyne exam?!”

”Please wear white coats”

PDSA – plan do study act

2015 2017 2018

Projecy leader

Co-creation – how?
PDSA and small-scale testing is a slow proces!

Plan

Staff Psych

Before – when I asked for a medical consultation, they would just give me advice over the phone

I think my patient is too unwell to be seen by the medical staff

Peerboard

See me – also when I am mentally unwell

White coats = real docs!

Act

Do

Staff Medical

Am I safe here?

This makes so much sense!

Why didn't you call before?

Study

Equipment

Urine cultures?
Otoscope?
Where is it?!

Navigator

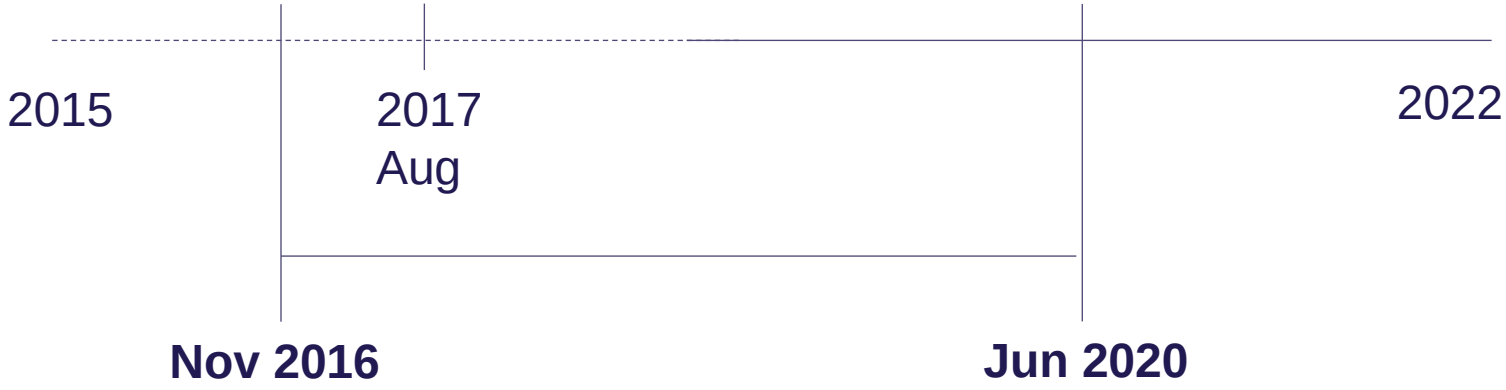
Who should refer patients?
Who should follow-up?
What is PDSA?

Liaison Somatic – every tuesday

2015 2017 2018 2022

- **In-patient psych-wards and forensic psych wards**
- **Four medical consultants and three nurses**
- **Navigator: Psych nurse (the same one)**
- **Patients referred by staff**
- **Weekly chart review of all admitted patients**
- **Any symptom/disease: Surgical, medical…**
- **Not just giving advice**
  - **Prescripe drugs**
  - **Refer and follow up on test results**
- **Participate in noon-meeting for psych staff**

Liaison Somatic – evaluation



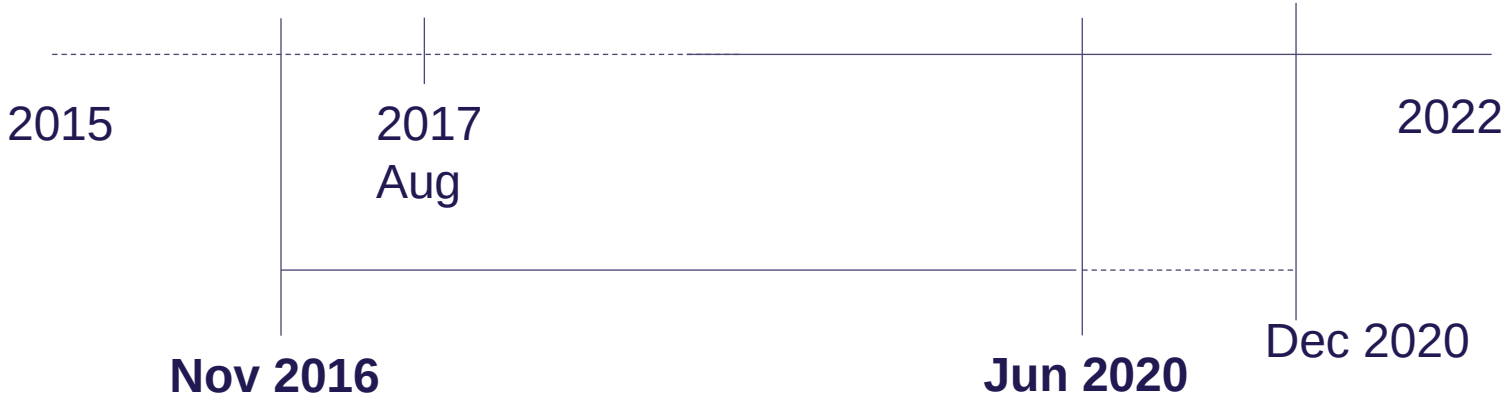
Study population

Adults in-patient psychiatric wards - bipolar disease or schizophrenia

November 2016 - Juni 2020 = 3 year 7 months

- Liaison consultation
- No liaison cosultation

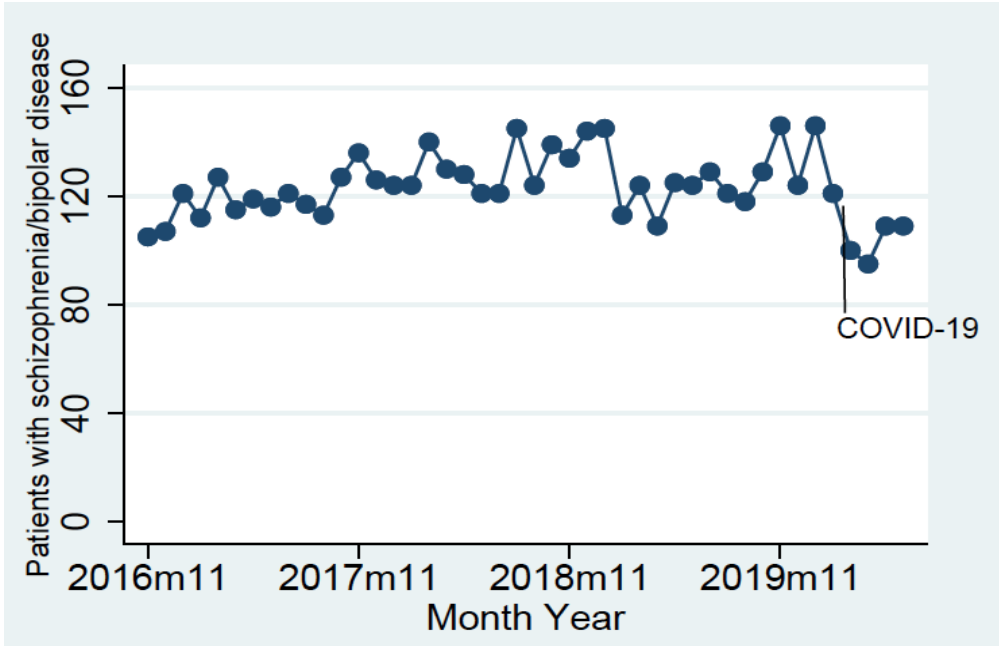
Liaison Somatik – evaluation

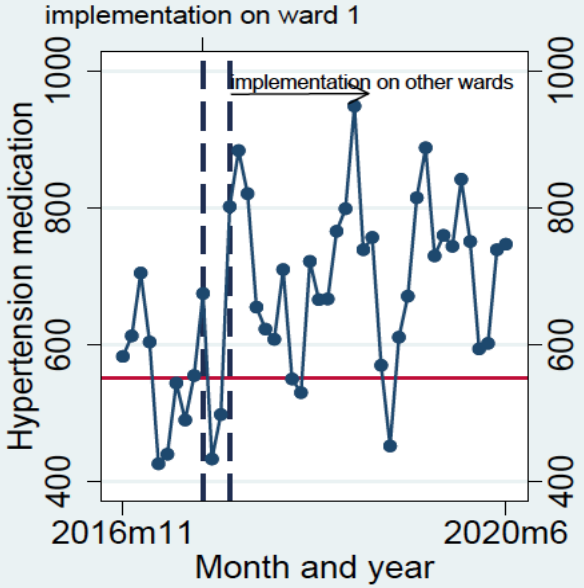


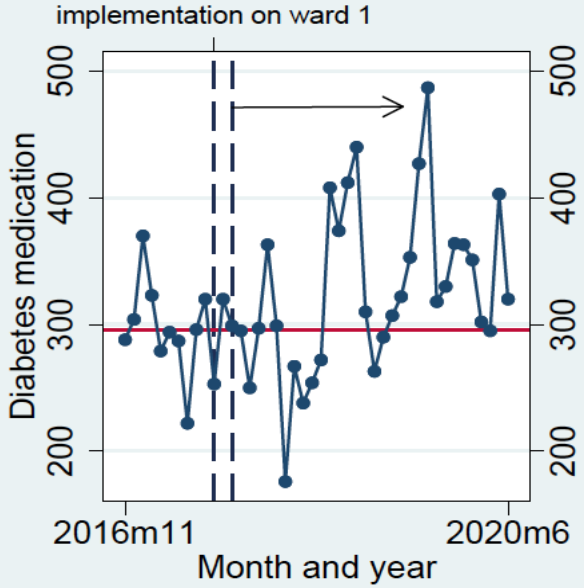
OUTCOME

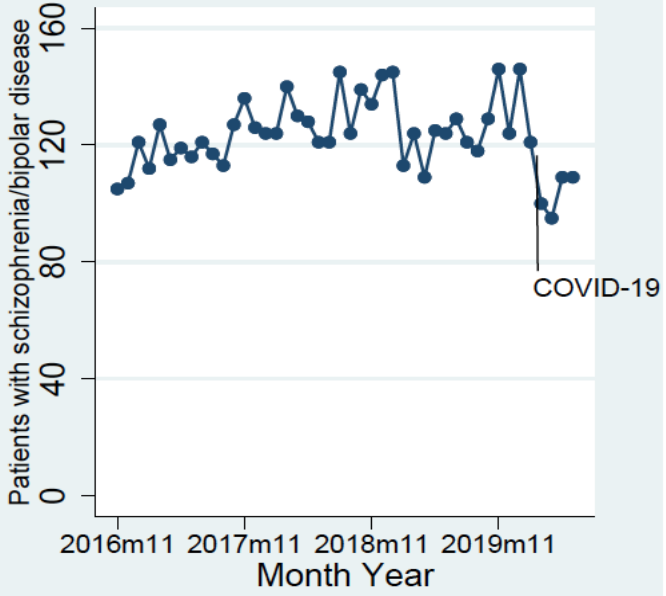
- Chest xray, echocardiography, cancer pathway
- Urgent transfer to non-pshyatric wards
- New non-psych out-patient visits
- New non-psych drug (diabetes, hypertention, cholesterol, antibiotics, lung inhalers)
- Hepatitis B/C

	Liason consultation	No liaison consultation
	n=193	*n=724*


Patients with schizophrenia/bipolar disease
0
40
80
120
160
COVID-19
2016m11
2017m11
2018m11
2019m11
Month Year


implementation on ward 1
implementation on other wards
Hypertension medication
400
600
800
1000
2016m11
2020m6
Month and year


implementation on ward 1
Diabetes medication
200
300
400
500
2016m11
2020m6
Month and year


Patients with schizophrenia/bipolar disease
0
40
80
120
160
COVID-19
2016m11
2017m11
2018m11
2019m11
Month Year

Liaison consultation (n=193)

	Time liason-to-procedure, Median [IQR]	Completed during admission
Chest x-ray	8 days [1;47]	**47%**
Echocardiography	13 days [6;44]	**60%**
Cancer referral	12 days [7;24]	**67%**
Administration of new non-psych drug	1 day [0;1]	**100%**

Is liaison somatic effective?

For patients with bipolar disease or schizophrenia

- More chest xray
- More cancer referrals (during admission!)
- More echocardiography (during admission!)
- Mere medication for hypertension and diabetes

For patients with other psych diagnosis – also effective?

For patients seen by the medical team…

- Urgent transfers
- New non-psych out-patients visitis

Maybe as often as before?

Thank you

Julie Mackenhauer

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	Unique patients	No procedures	Time liason-to-procedure, Median [IQR]	Completed during admission	
New non-psych out-patient visit	45	56	8 days [2;26]	37%	Department Cardio (n=6) Gastro (n=5) Ortho (n=5) Gyn (n=4)
Urgent transfer to non-psych ward	9	11	2 days [0;3]	100%	Department ED (n=5) Pulmonary (n=2) Infectious (n=2) LOS median 1 day [0;4]

International Forum on QUALITY & SAFETY in HEALTHCARE COPENHAGEN

Discussion

Jan Mainz, Region North Denmark & Aalborg University
Julie Mackenhauer, Danish Center for Health Services Research
Søren Valgreen Knudsen, Danish Center for Clinical Health Services
Lone Winther Lietzen, Aarhus University Hospital

Institute for Healthcare Improvement

BMJ

Did you hear about breakthrough ideas, methods, or results in the Improvement Science Stream?

Share them in the Learning Agents response form!

Relevant sessions:

- A9. Introduction to the Science Symposium stream and new methodologies / evaluation design (Tuesday 11:00 - 12:15)
- B10. The science of workforce and patient safety - the challenges and opportunities of technology for improvement (Tuesday 13:15-14:30)
- C9. The science of workforce and patient safety (Tuesday 15:00-16:00)
- D9. How can Improvement Science improve the quality of care? (Wednesday 11:00 - 12:15)
- E9. Delivering equity and sustainability (Wednesday 13:15-14:30)
- F9. What have we learned about the science of improvement? What's next? (Wednesday 15:00 - 16:00)