



# Bilagsfortegnelse til MTV for influenzavaccination

|                 |  |        |
|-----------------|--|--------|
| <b>Bilag 1:</b> | Søgeprotokol   | s. 2   |
|                 | Guidelines   | s. 2   |
|                 | Sekundær litteratur                                  | s. 22  |
|                 | Primær litteratur                                    | s. 57  |
| <b>Bilag 2:</b> | Fokuserede spørgsmål (PICO's) og udfaldsmål          | s. 103 |
| <b>Bilag 3:</b> | Metaanalyser   | s. 111 |
| <b>Bilag 4:</b> | Flowcharts fra litteratursøgning                     | s. 153 |
| <b>Bilag 5:</b> | ROBINS-I   | s. 161 |
| <b>Bilag 6:</b> | Litteraturgennemgang til økonomikapitlet             | s. 162 |
| <b>Bilag 7:</b> | Litteraturgennemgang til økonomikapitlet, oversigter | s. 170 |
| <b>Bilag 8:</b> | Antagelser i den økonomiske model                    | s. 173 |
| <b>Bilag 9:</b> | Antal influenzatilfælde i forskellige scenarier      | s. 177 |



# Bilag 1 – Søgeprotokol

## Søgeprotokol for guidelines

|   |  |
|---|--|
| <b>Projekttitel/aspekt</b>                    | MTV for influenza vaccination – Guidelines søgning                                       |
| <b>Kontakt /projektleder<br/>Fagkonsulent</b> | Stine Ulendorf Jacobsen, SST<br>Camilla Hiul Suppli, SST<br>Vibe Cecilie Ballegaard, SST |
| <b>Søgespecialist</b>                         | Birgitte Holm Petersen, SST  |
| <b>Senest opdateret</b>                       | 3. juni 2019   |

|  |  |
|--|--|
| <b>Baggrund</b>                            | Sundheds- og Ældreministeriet har bedt Sundhedsstyrelsen udarbejde en medicinsk teknologivurdering (MTV), der skal udgøre det faglige beslutningsgrundlag for blandt andet en vurdering af, om målgrupperne for det nuværende influenzavaccinationsprogram bør udvides, og om valg af vaccinetype bør differentieres for de forskellige risiko- og målgrupper. |
| <b>Søgetermer</b>                          | Engelske: Influenza OR Flu, vaccination OR immunization, seasonal<br>Danske: Influenza, Inflenzavaccine, influenzavaccination<br>Norske: Influenza, influensavaksine, influensavaksinasjon, sesonginfluensavaksine<br>Svenske: Influensavacciner, influensa, influensavaccination, säsonginfluensa   |
| <b>Inklusions- og eksklusionskriterier</b> | Sprog: engelsk, dansk, norsk og svensk<br>År: 2008 til 2019<br>Population: alle<br>Publikationstyper: Retningslinjer, guidance, guidelines, practice guideline, clinical guidelines, recommendation, consensus, Health Technology Assessment /HTA rapporter  |

**Informationskilder**

| <b>DATABASER</b>  | <b>INTERFACE</b>  | <b>FUND</b> | <b>DATO FOR SØGN-<br/>ING</b> |
|---|---|-------------|-------------------------------|
| <b>G-I-N International</b>                                    | internettet   | 28          | 22. maj 2019                  |
| <b>NICE (UK)</b>  | -   | 6 + 4       | 22. maj 2019                  |
| <b>TRIP</b>   | -   | 19          | 22. maj 2019                  |
| <b>Scottish Intercollegiate<br/>Guidelines Network (SIGN)</b> | -   | 0           | 28. maj 2019                  |
| <b>HTA Databasen (CRD data-<br/>base)</b>                     | -   | 63          | 28. maj 2019                  |
| <b>SBU, Sverige</b>   | -   | 0           | 28. maj 2019                  |
| <b>Socialstyrelsen, Sverige</b>                               | -   | 2           | 28. maj 2019                  |
| <b>Folkhälsomyndigheten, Sve-<br/>rige</b>                    | <a href="https://www.folkhalsomyndigheten.se/smittskydd-beredskap/">https://www.folkhalsomyndigheten.se/smittskydd-beredskap/</a> | 15          | 29. maj 2019                  |
| <b>Helsedirektoratet, Norge</b>                               | -   | 0           | 28. maj 2019                  |
| <b>FHI, Norge</b>   | -   | 19          | 28. maj 2019                  |
| <b>Netpunkt</b>   | -   | 7           | 28. maj 2019                  |
| <b>Medline</b>  | OVID  | 525         | 29. maj 2019                  |
| <b>Embase</b>   | OVID  | 1095        | 3. juni 2019                  |
| <b>Cinahl</b>   | EBSCO   | 521         | 29. maj 2019                  |

**Note:**

- Søgetermer og inklusions- og eksklusionskriterier er tilpasset de enkelte databaser.
- Dubletter er så vidt muligt frasorteret ved hjælp af RefWorks. De fundne referencer
- Fuldtekster vedhæftes i Refworks
- Søgestrategi for hver enkelt database præsenteres – hvis muligt vises det eksplicit hvor mange referencer den enkelte søgestreng genererer



## Søgestrategi

### GIN

(220519) - 28 fund

Søgetermer - influenza or influenza vaccine or influenza vaccination

Overført til Covidence

### NICE, UK

(220519) - 6 + 4 fund

Søgetermer: Influenza vaccine\*

6 results for influenza vaccine\*

#### 1. Flu vaccination: increasing uptake (NG103)

This guideline covers how to increase uptake of the free flu vaccination among people who are eligible. It describes ways to increase awareness and how to use all opportunities in primary and secondary care to identify people who should be encouraged to have the vaccination.

NICE guideline Published August 2018

#### 2. Myeloma: diagnosis and management (NG35)

This guideline covers the diagnosing and managing of myeloma (including smouldering myeloma and primary plasma cell leukaemia) in people aged 16 and over. It aims to improve care for people with myeloma by promoting the most effective tests and treatments for myeloma and its complications.

NICE guideline Published February 2016 Last updated October 2018

#### 3. Chronic obstructive pulmonary disease in over 16s: diagnosis and management (NG115)

This guideline covers diagnosing and managing chronic obstructive pulmonary disease (COPD) in people aged 16 and older, which includes emphysema and chronic bronchitis. It aims to help people with COPD to receive a diagnosis earlier so that they can benefit from treatments to reduce symptoms, improve quality of life and keep them healthy for longer.

NICE guideline Published December 2018

#### 4. Fever in under 5s: assessment and initial management (CG160)

This guideline covers the assessment and early management of fever with no obvious cause in children aged under 5. It aims to improve clinical assessment and help healthcare professionals diagnose serious illness among young children who present with fever in primary and secondary care.

Clinical guideline Published May 2013 Last updated August 2017



5.Excess winter deaths and illness and the health risks associated with cold homes (NG6)

This guideline covers reducing the health risks (including preventable deaths) associated with living in a cold home. It aims to improve the health and wellbeing of people vulnerable to the cold. Improving the temperature in homes, by improving energy efficiency, may also help reduce unnecessary fuel consumption.

NICE guideline Published March 2015

6.Chronic heart failure in adults: diagnosis and management (NG106)

This guideline covers diagnosing and managing chronic heart failure in people aged 18 and over. It aims to improve diagnosis and treatment to increase the length and quality of life for people with heart failure.

NICE guideline Published September 2018

**Andre NICE publikationer, 4 fund**

- [Guidance programme: Technology appraisal guidance](#) Remove 'Guidance programme: Technology appraisal guidance' filter

[Amantadine, oseltamivir and zanamivir for the treatment of influenza \(TA168\)](#)

Product type: Guidance  
Programme: Technology appraisal guidance  
Published date: 25 February 2009

[Oseltamivir, amantadine \(review\) and zanamivir for the prophylaxis of influenza\(TA158\)](#)

Product type: Guidance  
Programme: Technology appraisal guidance  
Published date: 24 September 2008

[Peramivir for treating influenza \[ID828\]](#)

Status: In development  
Programme: Technology appraisal guidance  
Expected publication date: TBC

[Intravenous zanamivir for treating influenza in hospital \[ID1196\]](#)

Status: Proposed  
Programme: Technology appraisal guidance  
Expected publication date: TBC

**TRIP – database,**  
(220519)

Søgetermer: influenza vaccination og Guidelines



Aus & NZ 26, Canada 38, UK 68, USA 96, Other 16

Antal fund I alt 244 fund her af 19 relevante fund

**Aus & NZ 26 fund – sorteret 2 ref.**

1. ASID (HICSIG) position statement: infection control guidelines for patients with influenza-like illnesses, including pandemic (H1N1) influenza 2009, in Australian health care facilities, 2009 [MJA Clinical Guidelines](#)
2. [The Australian Immunisation Handbook, 2019 Clinical Practice Guidelines Portal](#)

**Canada 38 fund - sorteret 4 ref.**

1. [Canadian immunization guide chapter on influenza and statement on seasonal influenza vaccine for 2017-2018, 2017 CPG Infobase](#)
2. [Vaccine recommendations for children and youth for the 2018/2019 influenza season, 2018 Canadian Paediatric Society](#)
3. [The benefits of influenza vaccine in pregnancy for the fetus and the infant younger than six months of age, 2014 Canadian Paediatric Society](#)
4. [Statement on seasonal trivalent inactivated influenza vaccine \(TIV\) for 2010-2011, 2010 CPG Infobase](#)

**UK 68 fund – sorteret 5 ref.**

1. Flu vaccination: increasing uptake, 2018 *National Institute for Health and Clinical Excellence - Clinical Guidelines*
2. Immunizations - seasonal influenza, 2016 *NICE Clinical Knowledge Summaries*
3. Influenza - seasonal, 2014 *NICE Clinical Knowledge Summaries*
4. Excess winter deaths and illness and the health risks associated with cold homes, 2015 *National Institute for Health and Clinical Excellence - Clinical Guidelines*
5. Fever in under 5s: assessment and initial management, 2013 *National Institute for Health and Clinical Excellence - Clinical Guidelines*



**USA 96 fund – sorteret 6 ref.**

1. [Influenza Vaccination During Pregnancy](#), 2018 *American College of Obstetricians and Gynecologists*
2. [Influenza Vaccination During Pregnancy](#), 2014 *American College of Obstetricians and Gynecologists*
3. [2018 Update on Diagnosis, Treatment, Chemoprophylaxis, and Institutional Outbreak Management of Seasonal Influenza](#), 2019 *Infectious Diseases Society of America*
4. [Assessment and Treatment of Pregnant Women With Suspected or Confirmed Influenza](#), 2018 *American College of Obstetricians and Gynecologists*
5. [Ethical Issues in Pandemic Influenza Planning Concerning Pregnant Women](#), 2013 *American College of Obstetricians and Gynecologists*
6. [Prenatal Care](#), 2018 *Kaiser Permanente Clinical Guidelines*

**Other 16 fund – sorteret 3 ref.**

1. [Communicating Risk in Public Health Emergencies. A WHO Guideline for Emergency Risk Communication \(ERC\) policy and practice](#), 2018 *World Health Organisation Guidelines*
2. [WHO recommendations on maternal health](#), 2017 *World Health Organisation Guidelines*
3. [WHO recommendations on child health](#), 2017 *World Health Organisation Guidelines*



**HTA database**

(280519) - 63 fund overført til Covidence

|                          | Line | Search   | Hits |        |
|--------------------------|------|--|------|--------|
| <input type="checkbox"/> | 1    | (influenza*) IN HTA                                  | 109  | Delete |
| <input type="checkbox"/> | 2    | MeSH DESCRIPTOR Influenza, Human EXPLODE ALL TREES   | 314  | Delete |
| <input type="checkbox"/> | 3    | MeSH DESCRIPTOR Influenza Vaccines EXPLODE ALL TREES | 201  | Delete |
| <input type="checkbox"/> | 4    | (vaccine* or vaccination*) IN HTA                    | 205  | Delete |
| <input type="checkbox"/> | 5    | #1 OR #2   | 346  | Delete |
| <input type="checkbox"/> | 6    | #4 OR #5   | 505  | Delete |
| <input type="checkbox"/> | 7    | #5 AND #6  | 346  | Delete |
| <input type="checkbox"/> | 8    | #3 OR #7   | 389  | Delete |
| <input type="checkbox"/> | 9    | * IN HTA FROM 2008 TO 2019                           | 9482 | Delete |
| <input type="checkbox"/> | 10   | #8 AND #9  | 63   | Delete |





## Socialstyrelsen, Sverige

2 fund

### [SOSFS 2009:17 Behörighet att ordinera läkemedel för vaccination mot influensa A\(H1N1\)](#)

Datum: 2009-10-15 [Visa med sökorden markerade](#)

Ladda ner sida RSS SOSFS 2009:17 Socialstyrelsens föreskrifter om behörighet att ordinera läkemedel för vaccination mot influensa A(H1N1) Knappar Ladda ner Beställ Visa varukorgen Läs hela sammanfattningen Publiceringsår: 2009 - Artikelnummer: ...

Sökväg:

Start / Publikationer 2009 / SOSFS 2009:17

#### [Nyckelord](#)

### [SOSFS 2015:14 Upphävande av allmänna råden \(SOSFS 1997:21\) Vaccination mot influensa](#)

Datum: 2015-06-29 [Visa med sökorden markerade](#)

Ladda ner sida RSS Socialstyrelsens kungörelse om upphävande av allmänna råden (SOSFS 1997:21) Vaccination mot influensa Knappar Ladda ner Beställ Visa varukorgen Läs hela sammanfattningen 2015:14 Publiceringsår: 2015 - Artikelnummer: 2015-6-41 ...

Sökväg:

Start / Publikationer 2015 / SOSFS 2015:14 Upphävande av al...

#### [Nyckelord](#)

## Folkhälsomyndigheten, Sverige

15 fund

Smitskyd: <http://www.smittskyddsinstitutet.se/>

Søgt på: "publikationer og infuensa" og "publikationer og immunisering"

1. Influenzavaccination till riskgrupper

Utgivningsår: 2016 Författare: Folkhälsomyndigheten



2.Underlaget är en sammanställning av kunskapsläget om influensa, grupper som löper ökad risk att drabbas av allvarlig och livshotande sjukdom, och om riktad vaccination till dessa så kallade riskgrupper. Kunskapsunderlaget togs fram av Socialstyrelsen ...

Influensavaccination som särskilt vaccinationsprogram

Utgivningsår: 2016Författare: Folkhälsomyndigheten

3.Faktabladet om influensavaccination är ett stöd för de som arbetar med gravida. Faktabladet kan till exempel laddas ner och delas ut på mödravårdscentraler. Engelsk version publicerad november 2016. Andra språk - Faktabladet finns även på följande ...

Vaccination mot influensa - information för dig som är gravid (svenska)

Utgivningsår: 2016Författare: Folkhälsomyndigheten

4.Faktabladet om influensavaccination är ett stöd för de som arbetar med gravida. Faktabladet kan till exempel laddas ner och delas ut på mödravårdscentraler. Reviderad version från september 2016. Andra språk - Faktabladet finns även på följande ...

Rekommendationer om influensavaccination till riskgrupper

Utgivningsår: 2018Författare: Folkhälsomyndigheten

5.I denna revidering (fyra) finns samlad information om vilka som rekommenderas vaccination, dosering av vaccin, samt annan relevant information rörande influensa. Förändringar vid denna revision inkluderar ett nytt avsnitt om prioritering vid vaccinbrist, ...

Trivalenta och tetravalenta vacciner mot säsongsinfluensa

Utgivningsår: 2018Författare: Folkhälsomyndigheten

6.Denna kunskapssammanställning sammanfattar Folkhälsomyndighetens litteraturoversikt om vaccinernas skyddseffekt och hälsoekonomi för trivalenta och tetravalenta inaktiverade influensavacciner, samt tetravalenta levande attenuerade influensavacciner. ...



Upphävande av Folkhälsomyndighetens allmänna råd (HSLF-FS 2015:2) om vaccination mot influensa

Utgivningsår: 2016 Författare: Folkhälsomyndigheten

7.HSLF-FS 2016:83 Upphävande av Folkhälsomyndighetens allmänna råd (HSLF-FS 2015:2) om vaccination mot influensa Beslutade: 17 augusti 2016 Gäller från och med: 1 september 2016 HSLF-FS 2015:2 ersattes av: Rekommendationer om influensavaccination till riskgrupper. ...

Vaccinationskampanjen mot influensa AH1N1 2009

Utgivningsår: 2013 Författare: Smittskyddsinstitutet

8.Kalkylerna pekar på att vi kunnat förhindra ca 100 dödsfall och förhindra ca 215 intensivvårdsfall med hjälp av vaccinationerna. Dessutom undvek samhället ...

Vaccination av gravida mot influensa

Utgivningsår: 2017 Författare: Folkhälsomyndigheten

9.Kunskapsöversikt för hälso- och sjukvårdspersonal. Den här kunskapsöversikten ersätter ett dokument som Socialstyrelsen publicerade 2013. Sedan dess har det kommit flera studier och systematiska översikter som rör vaccination av gravida

10.Cell mediated immunity in laboratory vaccine surveillance

UTGIVNINGÅR: 2018 FÖRFATTARE: FOLKHÄLSOMYNDIGHETEN

11.A tool to better predict immunity to vaccine preventable ... Immunization Program (NIP) in Sweden and, to investigate the possible added value of CMI in vaccine surveillance and in research to address knowledge gaps. The report provides primarily an ...

12.Barriers and motivating factors to MMR vaccination in communities with low coverage in Sweden



UTGIVNINGÅR: 2015 FÖRFATTARE: FOLKHÄLSOMYNDIGHETEN

13. The report presents results from a pilot test of Tailoring Immunization Programmes (TIP), a method developed by WHO/Europe to identify barriers and motivating factors to MMR vaccination in communities with low coverage in Sweden. The study is the basis ...

14. Work model for changing national vaccination programmes in Sweden

PUBLICERAD: 18 DECEMBER 2018 UPPDATERAD: - FÖRFATTARE: FOLKHÄLSOMYNDIGHETEN

15. This report outlines how the Public Health Agency of Sweden ... Immunization Technical Advisory Groups (NITAGs) and their Secretariats in other countries. Summary - In Sweden, national vaccination programmes are regulated through the Communicable Diseases ...

### **Folke Helse Instituttet, Norge**

19 fund

#### 1. Influensavaksine til friske barn

Influensavaksinering av friske barn (< 16 år) fører trolig til færre tilfeller av influensa, og muligens til færre tilfeller av influensaliknende sykdom.

#### **FORSKNINGSOVERSIKT**

Publisert 20.12.2013 Oppdatert 09.09.2014

#### 2. Influensavaksine til eldre utenfor institusjon

Influensavaksine til eldre som bor utenfor institusjon fører muligens til færre influensatilfeller (laboratoriebekreftet).

#### **FORSKNINGSOVERSIKT**

Publisert 30.12.2012 Oppdatert 12.09.2014

#### 3. Influensavaksine til eldre som bor på institusjon

Influensavaksine til eldre som bor på institusjon fører trolig til færre influensaliknende sykdommer og muligens til at færre får influensa og lungebetennelse.



## FORSKNINGSOVERSIKT

Publisert 20.12.2013 Oppdatert 09.09.2014

### 4. Influensavaksine til barn forebygger trolig ørebetennelse

Å gi influensavaksine til barn forebygger trolig akutt mellomørebetennelse og reduserer trolig bruken av antibiotika. Noen flere barn vil trolig få vanlige bivirkninger av influensavaksinen som feber og rennende nese. Det viser en Cochrane-oversikt.

## FORSKNINGSOVERSIKT

Publisert 11.12.2015

### 5. Influensavaksine til helsepersonell som arbeider med personer over 60 år

Systematisk gjennomgang av relevant forskningslitteratur

## FORSKNINGSOVERSIKT

Publisert 20.12.2013 Oppdatert 09.09.2014

### 6. Helseeffekt av influensavaksine til eldre og kronisk syke

Denne kunnskapsoppsummeringen presenterer dokumentasjonsgrunnlaget om effekten av influensavaksinering av eldre og personer med kronisk sykdom.

## FORSKNINGSOVERSIKT

Publisert 20.05.2009 Oppdatert 09.09.2014

### 7. Influensavaksine for friske voksne fører trolig til færre tilfeller av influensa

Influensavaksinasjon av friske voksne fører trolig til færre tilfeller av influensa og muligens også færre tilfeller av influensalignende sykdom.

## FORSKNINGSOVERSIKT

Publisert 26.12.2010 Oppdatert 12.09.2014

### 8. Effekter av tiltak mot sykefravær og uførhet hos helsepersonell

Formålet med denne systematiske oversikten var å oppsummere forskning om effekt av tiltak for å forebygge sykefravær og uførhet hos helsepersonell.



## FORSKNINGSOVERSIKT

Publisert 26.02.2014 Oppdatert 09.09.2014

### 9. Påminnelser får flere til å ta vaksiner - Cochrane: Kort oppsummert

Flere tar vaksiner når de blir minnet på det. Enkle påminnelser i form av brev, postkort, sms eller automatiserte telefonoppringninger ser ut til å øke opptak av alle typer vaksiner.

## FORSKNINGSOVERSIKT

Publisert 24.04.2018

### 10. Influensavaksine til eldre utenfor institusjon

Influensavaksine til eldre som bor utenfor institusjon fører muligens til færre influensatilfeller (laboratoriebekreftet).

## FORSKNINGSOVERSIKT

Publisert 30.12.2012 Oppdatert 12.09.2014

### 11. Influensavaksine til eldre som bor på institusjon

Influensavaksine til eldre som bor på institusjon fører trolig til færre influensliknende sykdommer og muligens til at færre får influensa og lungebetennelse.

## FORSKNINGSOVERSIKT

Publisert 20.12.2013 Oppdatert 09.09.2014

### 12. Influensavaksine til barn forebygger trolig ørebetennelse

Å gi influensavaksine til barn forebygger trolig akutt mellomørebetennelse og reduserer trolig bruken av antibiotika. Noen flere barn vil trolig få vanlige bivirkninger av influensavaksinen som feber og rennende nese. Det viser en Cochrane-oversikt.

## FORSKNINGSOVERSIKT

Publisert 11.12.2015

### 13. Influensavaksine til helsepersonell som arbeider med personer over 60 år

Systematisk gjennomgang av relevant forskningslitteratur



## FORSKNINGSOVERSIKT

Publisert 20.12.2013 Oppdatert 09.09.2014

### 14. Helseeffekt av influensavaksine til eldre og kronisk syke

Denne kunnskapsoppsummeringen presenterer dokumentasjonsgrunnlaget om effekten av influensavaksinering av eldre og personer med kronisk sykdom.

## FORSKNINGSOVERSIKT

Publisert 20.05.2009 Oppdatert 09.09.2014

### 15. National Influenza Centre. Influenza Epidemiological Information prepared for the WHO Informal Meeting on Strain Composition for Inactivated Influenza Vaccines for use in the Season 2019, Atlanta, September 2018

Norsk rapport til WHO's influensavaksinemøte i Genève, september 2018.

## RAPPORT

Publisert 09.10.2018

### 16. Influensavaksine for friske voksne fører trolig til færre tilfeller av influensa

Influensavaksinasjon av friske voksne fører trolig til færre tilfeller av influensa og muligens også færre tilfeller av influensalignende sykdom.

## FORSKNINGSOVERSIKT

Publisert 26.12.2010 Oppdatert 12.09.2014

### 17. Influenza epidemiological information prepared for WHO informal meeting on strain composition for inactivated influenza vaccines for use in season 2018-19 Geneva, Feb 2018

Norsk rapport til WHO's influensavaksinemøte i Genève, februar 2018.

## RAPPORT

Publisert 23.02.2018

### 18. Influenza Virological and Epidemiological Information prepared for the WHO Consultation on the Composition of Influenza Virus Vaccines for the Northern Hemisphere 2019–2020 Beijing, February 2019



Det nasjonale influensalaboratoriet for WHO i Norge (WHO National Influenza Centre Norway), Avdeling for Influenza, FHI, utarbeider en rapport til WHO hver februar og september som beskriver influensasituasjonen i Norge og som tas med i vurderingen ved bestemmelse av ny influensavaksine. Rapporten går i dybden og tar for seg immuniteten i befolkningen og genetiske karakteriseringer av sirkulerende virus i Norge. Rapporten sammenfatter data og analyser fra den kliniske overvåkingen, virusovervåkingen og den seroepidemiologiske overvåkingen i Norge.

## RAPPORT

Publisert 08.02.2019

### 19.Utsikter for influensasesongen 2018/19 i Norge

Denne rapporten presenterer Folkehelseinstituttets vurdering av utsiktene til influensasesongen 2018/2019 som er under utvikling. Rapporten er på engelsk.

## RAPPORT

Publisert 10.01.2019

### **Netpunkt**

DK – 7 fund

Der blev fundet 7 poster.

---

1.Infection prevention : new perspectives and controversies

[!\[\]\(e3f255517d37bb309a3a931ec4849e6a\_img.jpg\) Se mere](#)

2.Molecular biotechnology : principles and applications of recombinant DNA

[Bernard R. Glick](#); [Cheryl L. Patten](#)

[!\[\]\(9db214d549b9aeebe72aa11d3a5c4b1a\_img.jpg\) Se mere](#)

3.Vaccine science and immunization guideline : a practical guide for primary care

[Pamela G. Rockwell](#)





[+ Se mere](#)

4. Medical problems during pregnancy : a comprehensive clinical guide

[Carolyn Bernstein](#); [Tamara C. Takoudes](#)

[+ Se mere](#)

5. Clinical management of bacterial pneumonia

[Antoni Torres](#); [Catia Cillóniz](#)

[+ Se mere](#)

6. Evidens og retningslinjer for influenza-og pneumokokvaccination af ældre

forfatter: [Jan Gerstoft](#) ; forfatter: [Marie Helleberg](#)

[+ Se mere](#)

7. Community-acquired pneumonia : strategies for management

[Torres Martí A.](#); [Rosario Menendez](#)

[+ Se mere](#)



### Medline

(290519) – overført til Covidence

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) 1946 to May 28, 2019

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | vaccine/ or vaccine*.mp.  | 293840  |
| 2  | vaccination*.mp. or vaccination/  | 161049  |
| 3  | immunization*.mp. or immunization/  | 150235  |
| 4  | influenza vaccination*.mp. or influenza vaccination/  | 8024    |
| 5  | influenza*.mp. or influenza/  | 126138  |
| 6  | flu*.mp.  | 1927213 |
| 7  | influenza vaccine/ or influenza vaccin*.mp.   | 25978   |
| 8  | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4339    |
| 9  | 1 or 2 or 3   | 411526  |
| 10 | 5 or 6  | 2038025 |
| 11 | 9 and 10  | 59044   |
| 12 | 4 or 7 or 11  | 59055   |
| 13 | (Guideline* or practice guideline* or clinical guideline* or guidance or consensus or recommendations).ti,kw,kf,pt.   | 159199  |
| 14 | Guidelines as topic/ or practice guideline as topic/  | 37968   |
| 15 | 13 or 14  | 187075  |
| 16 | 12 and 15   | 941     |
| 17 | limit 16 to yr="2008 - 2019"  | 525     |

**Embase**

(030619) – overført til Covidence

Database(s): **Embase** 1996 to 2019 Week 22

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | vaccine/ or vaccine*.mp.  | 298680  |
| 2  | vaccination*.mp. or vaccination/  | 172414  |
| 3  | immunization*.mp. or immunization/  | 120321  |
| 4  | influenza vaccination*.mp. or influenza vaccination/  | 17709   |
| 5  | influenza*.mp. or influenza/  | 134723  |
| 6  | flu*.mp.  | 2029860 |
| 7  | influenza vaccine/ or influenza vaccin*.mp.   | 36340   |
| 8  | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating sub-heading word, candidate term word] | 7564    |
| 9  | 1 or 2 or 3   | 382457  |
| 10 | 5 or 6  | 2137973 |
| 11 | 9 and 10  | 78269   |
| 12 | 4 or 7 or 11  | 78275   |
| 13 | (Guideline* or practice guideline* or clinical guideline* or guidance or consensus or recommendations).ti,kw,pt.  | 175502  |
| 14 | 12 and 13   | 1616    |
| 15 | limit 14 to yr="2008 - 2019"  | 1095    |

**CINAHL**

(280519) – 521 ref. overført til Covidence

Tuesday, May 28, 2019 8:27:07 AM

# Query Limiters/Expanders Last Run Via Results  
 S23 S17 AND S21 Limiters - Published Date: 20080101-20191231  
 Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases  
 Search Screen - Advanced Search



|   |  |                               |                           |
|---|--|-------------------------------|---------------------------|
| Database - CINAHL with Full Text                    | 521  |                               |                           |
| S22   | S17 AND S21  | Search modes - Boolean/Phrase | Interface - EBSCOhost Re- |
| search Databases                                    |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 786  |                               |                           |
| S21   | S18 OR S19   | Search modes - Boolean/Phrase | Interface - EBSCOhost Re- |
| search Databases                                    |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 163,215  |                               |                           |
| S20   | (MH "Practice Guidelines") OR "clinical guideline**" | Search modes - Bool-          |                           |
| ean/Phrase Interface - EBSCOhost Research Databases |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 71,185   |                               |                           |
| S19   | (MH "Practice Guidelines")                           | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 67,814   |                               |                           |
| S18   | guideline* or practical guideline*                   | Search modes - Boolean/Phrase |                           |
| Interface - EBSCOhost Research Databases            |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 163,215  |                               |                           |
| S17   | S12 OR S13 OR S14 OR S15 OR S16                      | Search modes - Boolean/Phrase |                           |
| Interface - EBSCOhost Research Databases            |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 14,635   |                               |                           |
| S16   | "influenza vaccination"                              | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 2,793  |                               |                           |
| S15   | influenza vaccination*                               | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 2,921  |                               |                           |
| S14   | (MH "Influenza Vaccine")                             | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 9,210  |                               |                           |
| S13   | influenza vaccine*                                   | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 9,766  |                               |                           |
| S12   | S10 AND S11  | Search modes - Boolean/Phrase | Interface - EBSCOhost Re- |
| search Databases                                    |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 14,635   |                               |                           |
| S11   | S3 OR S4 OR S5 OR S6 OR S7                           | Search modes - Boolean/Phrase |                           |
| Interface - EBSCOhost Research Databases            |  |                               |                           |
| Search Screen - Advanced Search                     |  |                               |                           |
| Database - CINAHL with Full Text                    | 63,982   |                               |                           |
| S10   | S1 OR S2 OR S8 OR S9                                 | Search modes - Boolean/Phrase | Interface - EB-           |
| SCOhost Research Databases                          |  |                               |                           |



|   |         |                               |  |
|---|---------|-------------------------------|--|
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 168,922 |                               |  |
| S9 (MH "Influenza, Seasonal") OR "flu" OR (MH "Influenza+") |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 20,364  |                               |  |
| S8 flu*   |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 147,173 |                               |  |
| S7 immunization*  |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 29,874  |                               |  |
| S6 (MH "Immunization+")                                     |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 22,569  |                               |  |
| S5 vaccination*   |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 21,218  |                               |  |
| S4 (MH "Vaccines+")   |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 39,798  |                               |  |
| S3 vaccine*   |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 48,394  |                               |  |
| S2 (MH "Influenza+")  |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 17,789  |                               |  |
| S1 influenza*   |         | Search modes - Boolean/Phrase | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search                             |         |                               |  |
| Database - CINAHL with Full Text                            | 27,721  |                               |  |



## Søgeprotokol for sekundær litteratur

|  |  |
|--|--|
| <b>Projektitel/aspekt</b>                    | <b>MTV for influenza vaccine – søgning på PICOs – Sekundær litteratur</b>                |
| <b>Kontakt /projektleder og fagkonsulent</b> | Stine Ulendorf Jacobsen, SST<br>Vibe Cecilie Ballegaard, SST<br>Camilla Hiul Suppli, SST |
| <b>Søgespecialist</b>                        | Birgitte Holm Petersen, SST  |
| <b>Senest opdateret</b>                      | 16. september 2019   |

|  |  |
|--|--|
| <b>Baggrund</b>                            | <p>Fokuserede spørgsmål – MTV for influenzavaccination:</p> <p>PICO 1: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: ældre på 65 år eller derover.</p> <p>PICO 2: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: øvrige risikogrupper, kroniske syge</p> <p>PICO 3: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: gravide</p> <p>PICO 4: Hvad er effekten af vaccination med en 3-valent adjuveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?</p> <p>PICO 5: Hvad er effekten af vaccination med en high-dose influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: ældre på 65 år eller derover.</p> <p>PICO 6: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn over 2 år?</p> <p>PICO 7: Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under 2 år?</p> <p>PICO 8: Hvad er effekten af influenzavaccination af sundhedspersonale?<br/>Population: health care workers and social workers</p> |
| <b>Søgetermer</b>                          | Se søgestrategierne for hvert PICO   |
| <b>Inklusions- og eksklusionskriterier</b> | Sprog: dansk, engelsk, norsk og svensk<br>År: angivet i søgestrategien   |



|  |  |
|--|--|
|  | Population: se hvert PICO<br>Publikationstyper: Systematiske reviews og Metaanalyser |
|--|--|

### Informationskilder

| DATABASER              | INTERFACE | FUND | DATO FOR SØGNING    |
|------------------------|-----------|------|---------------------|
| Medline incl. Cochrane | OVID      |      | 15. – 17. juli 2019 |
| Embase incl. Cochrane  | OVID      |      | 15. – 17. juli 2019 |

### Note:

- Søgetermer og inklusions- og eksklusionskriterier er tilpasset de enkelte databaser.
- Dubletter er så vidt muligt frasorteret ved hjælp af RefWorks. De fundne referencer overføres til Covidence (referenceværktøj)
- Fuldtekster præsenteres i Covidence i pdf-format
- Søgestrategi for hver enkelt database præsenteres – hvis muligt vises det eksplicit hvor mange referencer den enkelte søgestreng genererer



## Søgestrategi

Cochrane reviews er inkluderet i Medline og Embase søgningerne PICO 1 - 8

### PICO 1 – (aged)

#### Medline (150719)

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) 1946 to July 12, 2019

#### Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 15      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 97      |
| 6  | trivalent influenza vaccine*.mp.   | 629     |
| 7  | TIV.mp.  | 759     |
| 8  | fluad*.mp.   | 70      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2       |





|    |   |        |
|----|---|--------|
| 13 | QIV.mp.   | 100    |
| 14 | quadrivalent influenza vaccine*.mp.                     | 150    |
| 15 | fluenz tetra*.mp.                                       | 2      |
| 16 | LAIV.mp.  | 505    |
| 17 | live-attenuated influenza vaccine*.mp.                  | 679    |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24371  |
| 19 | fluarix quadrivalent*.mp.                               | 4      |
| 20 | flublok quadrivalent*.mp.                               | 2      |
| 21 | flulaval quadrivalent*.mp.                              | 1      |
| 22 | fluzone quadrivalent*.mp.                               | 4      |
| 23 | fluzone*.mp.  | 74     |
| 24 | QIVc*.mp.   | 5      |
| 25 | flucelvax*.mp.  | 4      |
| 26 | flumist.mp.   | 95     |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24371  |
| 28 | quadrivalent inactivated vaccine*.mp.                   | 8      |
| 29 | aTIV.mp.  | 27     |
| 30 | adjuvanted trivalent inactivated *.mp.                  | 0      |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 11     |
| 32 | Vaccines, Inactivated/                                  | 5141   |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 14     |
| 34 | HD TIV.mp.  | 2      |
| 35 | vaccine*.mp.  | 295590 |
| 36 | influenza*.mp.  | 126777 |
| 37 | 35 and 36   | 35436  |
| 38 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24371  |
| 39 | or/1-34   | 28254  |
| 40 | 35 or 36 or 38 or 39                                    | 387216 |
| 41 | vaccination*.mp. or vaccination/                        | 162096 |



|    |   |         |
|----|---|---------|
| 42 | immunization*.mp. or immunization/  | 150793  |
| 43 | influenza vaccination*.mp. or influenza vaccination/  | 8094    |
| 44 | influenza*.mp. or influenza/  | 126777  |
| 45 | flu*.mp.  | 1938370 |
| 46 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4388    |
| 47 | "Aged, 80 and over"/ or Aged/ or aged*.mp.  | 5103865 |
| 48 | elderly.mp. or Aged/  | 2993316 |
| 49 | 47 or 48  | 5151338 |
| 50 | 41 or 42 or 43 or 44 or 45 or 46  | 2277167 |
| 51 | ((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw,kf.   | 745306  |
| 52 | 40 and 49 and 50  | 41307   |
| 53 | 51 and 52   | 1726    |
| 54 | limit 53 to (yr="2008 - 2019" and (danish or english or norwegian or swedish))  | 1296    |

**EMBASE (150719)**Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| # | Searches                         | Results |
|---|----------------------------------|---------|
| 1 | afluria*.mp.                     | 142     |
| 2 | agrippal*.mp.                    | 126     |
| 3 | influvac*.mp.                    | 275     |
| 4 | preflucel*.mp.                   | 23      |
| 5 | vaxigrip*.mp.                    | 471     |
| 6 | trivalent influenza vaccine*.mp. | 676     |
| 7 | TIV.mp.                          | 996     |



|    |   |       |
|----|---|-------|
| 8  | fluad*.mp.  | 320   |
| 9  | fluarix tetra*.mp.  | 16    |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2     |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0     |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4     |
| 13 | QIV.mp.   | 141   |
| 14 | quadrivalent influenza vaccine*.mp.   | 202   |
| 15 | fluenz tetra*.mp.   | 20    |
| 16 | LAIV.mp.  | 581   |
| 17 | live-attenuated influenza vaccine*.mp.  | 755   |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544 |
| 19 | fluarix quadrivalent*.mp.   | 16    |
| 20 | flublok quadrivalent*.mp.   | 5     |
| 21 | flulaval quadrivalent*.mp.  | 15    |
| 22 | fluzone quadrivalent*.mp.   | 12    |
| 23 | fluzone*.mp.  | 614   |
| 24 | QIVc*.mp.   | 9     |
| 25 | flucelvax*.mp.  | 73    |
| 26 | flumist.mp.   | 663   |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544 |
| 28 | quadrivalent inactivated vaccine*.mp.   | 12    |
| 29 | aTIV.mp.  | 28    |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0     |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 9     |



|    |  |         |
|----|--|---------|
| 32 | Vaccines, Inactivated/   | 4167    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.   | 16      |
| 34 | HD TIV.mp.   | 4       |
| 35 | vaccine*.mp.   | 301883  |
| 36 | influenza*.mp.   | 136166  |
| 37 | 35 and 36  | 48538   |
| 38 | Influenza Vaccines/ or influenza vaccine*.mp.  | 32544   |
| 39 | or/1-34  | 35871   |
| 40 | 35 or 36 or 38 or 39   | 389942  |
| 41 | vaccination*.mp. or vaccination/   | 174623  |
| 42 | immunization*.mp. or immunization/   | 121497  |
| 43 | influenza vaccination*.mp. or influenza vaccination/   | 17919   |
| 44 | influenza*.mp. or influenza/   | 136166  |
| 45 | flu*.mp.   | 2052231 |
| 46 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 7666    |
| 47 | 41 or 42 or 43 or 44 or 45 or 46   | 2357497 |
| 48 | (((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.                              | 1102484 |
| 49 | aged/ or aged*.mp.   | 3302894 |
| 50 | very elderly/ or frail elderly/ or elderly*.mp.  | 438289  |
| 51 | 49 or 50   | 3368010 |
| 52 | 40 and 47 and 51   | 36775   |
| 53 | 48 and 52  | 2204    |
| 54 | limit 53 to yr="2008 - 2019"   | 1840    |
| 55 | limit 53 to ((danish or english or norwegian or swedish) and yr="2008 - 2019")   | 1758    |

**PICO 2**



## Medline (150719)

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) 1946 to July 15, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 15      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 97      |
| 6  | trivalent influenza vaccine*.mp.   | 629     |
| 7  | TIV.mp.  | 759     |
| 8  | fluad*.mp.   | 70      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2       |
| 13 | QIV.mp.  | 100     |
| 14 | quadrivalent influenza vaccine*.mp.  | 150     |
| 15 | fluenz tetra*.mp.  | 2       |
| 16 | LAIV.mp.   | 505     |
| 17 | live-attenuated influenza vaccine*.mp.   | 679     |



|    |   |         |
|----|---|---------|
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24377   |
| 19 | fluarix quadrivalent*.mp.                               | 4       |
| 20 | flublok quadrivalent*.mp.                               | 2       |
| 21 | flulaval quadrivalent*.mp.                              | 1       |
| 22 | fluzone quadrivalent*.mp.                               | 4       |
| 23 | fluzone*.mp.  | 74      |
| 24 | QIVc*.mp.   | 5       |
| 25 | flucelvax*.mp.  | 4       |
| 26 | flumist.mp.   | 95      |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24377   |
| 28 | quadrivalent inactivated vaccine*.mp.                   | 8       |
| 29 | aTIV.mp.  | 27      |
| 30 | adjuvanted trivalent inactivated *.mp.                  | 0       |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 11      |
| 32 | Vaccines, Inactivated/                                  | 5141    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 14      |
| 34 | HD TIV.mp.  | 2       |
| 35 | vaccine*.mp.  | 295696  |
| 36 | influenza*.mp.  | 126820  |
| 37 | 35 and 36   | 35447   |
| 38 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24377   |
| 39 | or/1-34   | 28260   |
| 40 | 35 or 36 or 38 or 39                                    | 387354  |
| 41 | vaccination*.mp. or vaccination/                        | 162166  |
| 42 | immunization*.mp. or immunization/                      | 150823  |
| 43 | influenza vaccination*.mp. or influenza vaccination/    | 8098    |
| 44 | influenza*.mp. or influenza/                            | 126820  |
| 45 | flu*.mp.  | 1938975 |



|    |   |         |
|----|---|---------|
| 46 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4394    |
| 47 | 41 or 42 or 43 or 44 or 45 or 46  | 2277879 |
| 48 | ((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw,kf.   | 745935  |
| 49 | Cochrane.jw.  | 14338   |
| 50 | Chronic Disease/ or chronic disease*.mp.  | 301043  |
| 51 | chronic illness*.mp.  | 15162   |
| 52 | illness.mp.   | 475665  |
| 53 | risk group*.mp.   | 39835   |
| 54 | immunocompromising*.mp.   | 317     |
| 55 | immunocompromised*.mp.  | 43059   |
| 56 | Acquired Immunodeficiency Syndrome/ or immunodeficiency*.mp.  | 195731  |
| 57 | Heart Diseases/ or cardiac disease*.mp.   | 82439   |
| 58 | Diabetes Mellitus/ or diabetes*.mp.   | 581880  |
| 59 | Respiratory Tract Diseases/ or chronic respiratory condition*.mp.   | 21809   |
| 60 | Lung Diseases, Obstructive/ or Pulmonary Disease, Chronic Obstructive/ or chronic obstructive pulmonary disease*.mp.  | 70945   |
| 61 | COPD.mp. or Pulmonary Disease, Chronic Obstructive/   | 52586   |
| 62 | asthma.mp. or Asthma/   | 168105  |
| 63 | Nervous System Diseases/ or chronic neurologic condition*.mp.   | 42387   |
| 64 | Autoimmune Diseases/ or autoimmune disease*.mp.   | 94109   |
| 65 | Liver Diseases/ or chronic liver disease*.mp.   | 80509   |
| 66 | Liver Diseases/ or liver disease*.mp.   | 145842  |
| 67 | cancer.mp. or Neoplasms/  | 1788542 |
| 68 | or/50-67  | 3769279 |
| 69 | 40 and 47 and 68  | 43094   |



|    |  |      |
|----|--|------|
| 70 | 48 and 69  | 1661 |
| 71 | 49 and 69  | 80   |
| 72 | 70 or 71   | 1688 |
| 73 | limit 72 to (yr="2008 - 2019" and (danish or english or norwegian or swedish)) | 1322 |

## Embase (150717)

Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 142     |
| 2  | agrippal*.mp.   | 126     |
| 3  | influvac*.mp.   | 275     |
| 4  | preflucl*.mp.   | 23      |
| 5  | vaxigrip*.mp.   | 471     |
| 6  | trivalent influenza vaccine*.mp.  | 676     |
| 7  | TIV.mp.   | 996     |
| 8  | fluad*.mp.  | 320     |
| 9  | fluarix tetra*.mp.  | 16      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2       |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 13 | QIV.mp.   | 141     |
| 14 | quadrivalent influenza vaccine*.mp.   | 202     |





|    |   |         |
|----|---|---------|
| 15 | fluenz tetra*.mp.                                       | 20      |
| 16 | LAIV.mp.  | 581     |
| 17 | live-attenuated influenza vaccine*.mp.                  | 755     |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32544   |
| 19 | fluarix quadrivalent*.mp.                               | 16      |
| 20 | flublok quadrivalent*.mp.                               | 5       |
| 21 | flulaval quadrivalent*.mp.                              | 15      |
| 22 | fluzone quadrivalent*.mp.                               | 12      |
| 23 | fluzone*.mp.  | 614     |
| 24 | QIVc*.mp.   | 9       |
| 25 | flucelvax*.mp.  | 73      |
| 26 | flumist.mp.   | 663     |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32544   |
| 28 | quadrivalent inactivated vaccine*.mp.                   | 12      |
| 29 | aTIV.mp.  | 28      |
| 30 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 9       |
| 31 | Vaccines, Inactivated/                                  | 4167    |
| 32 | high dose trivalent inactivated influenza vaccine*.mp.  | 16      |
| 33 | HD TIV.mp.  | 4       |
| 34 | vaccine*.mp.  | 301883  |
| 35 | influenza*.mp.  | 136166  |
| 36 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32544   |
| 37 | or/1-34   | 302331  |
| 38 | vaccination*.mp. or vaccination/                        | 174623  |
| 39 | immunization*.mp. or immunization/                      | 121497  |
| 40 | influenza vaccination*.mp. or influenza vaccination/    | 17919   |
| 41 | influenza*.mp. or influenza/                            | 136166  |
| 42 | flu*.mp.  | 2052231 |



|    |  |         |
|----|--|---------|
| 43 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 7666    |
| 44 | (((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.                              | 1102484 |
| 45 | Cochrane.jx.   | 20480   |
| 46 | Chronic Disease/ or chronic disease*.mp.   | 174948  |
| 47 | chronic illness*.mp.   | 18997   |
| 48 | illness.mp.  | 297788  |
| 49 | risk group*.mp.  | 56447   |
| 50 | immunocompromising*.mp.  | 409     |
| 51 | immunocompromised*.mp.   | 43289   |
| 52 | Acquired Immunodeficiency Syndrome/ or immunodeficiency*.mp.   | 402200  |
| 53 | Heart Diseases/ or cardiac disease*.mp.  | 28463   |
| 54 | Diabetes Mellitus/ or diabetes*.mp.  | 861120  |
| 55 | Respiratory Tract Diseases/ or chronic respiratory condition*.mp.  | 17446   |
| 56 | Lung Diseases, Obstructive/ or Pulmonary Disease, Chronic Obstructive/ or chronic obstructive pulmonary disease*.mp.   | 97809   |
| 57 | COPD.mp. or Pulmonary Disease, Chronic Obstructive/  | 88540   |
| 58 | asthma.mp. or Asthma/  | 222361  |
| 59 | Nervous System Diseases/ or chronic neurologic condition*.mp.  | 24863   |
| 60 | Autoimmune Diseases/ or autoimmune disease*.mp.  | 118036  |
| 61 | Liver Diseases/ or chronic liver disease*.mp.  | 39364   |
| 62 | Liver Diseases/ or liver disease*.mp.  | 174262  |
| 63 | cancer.mp. or Neoplasms/   | 2818040 |
| 64 | 38 or 39 or 40 or 41 or 42 or 43   | 2357497 |
| 65 | 34 and 35  | 48538   |
| 66 | 37 or 65   | 302331  |
| 67 | or/46-63   | 4927397 |



|    |  |       |
|----|--|-------|
| 68 | 64 and 66 and 67   | 59057 |
| 69 | 44 and 68  | 2445  |
| 70 | 45 and 68  | 91    |
| 71 | 69 or 70   | 2486  |
| 72 | limit 71 to ((danish or english or norwegian or swedish) and yr="2008 - 2019") | 1973  |

### PICO 3

#### Medline (150719)

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to July 15, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 15      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 97      |
| 6  | trivalent influenza vaccine*.mp.   | 629     |
| 7  | TIV.mp.  | 759     |
| 8  | flud*.mp.  | 70      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0       |



|    |   |        |
|----|---|--------|
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2      |
| 13 | QIV.mp.   | 100    |
| 14 | quadrivalent influenza vaccine*.mp.   | 150    |
| 15 | fluenz tetra*.mp.   | 2      |
| 16 | LAIV.mp.  | 505    |
| 17 | live-attenuated influenza vaccine*.mp.  | 679    |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24377  |
| 19 | fluarix quadrivalent*.mp.   | 4      |
| 20 | flublok quadrivalent*.mp.   | 2      |
| 21 | flulaval quadrivalent*.mp.  | 1      |
| 22 | fluzone quadrivalent*.mp.   | 4      |
| 23 | fluzone*.mp.  | 74     |
| 24 | QIVc*.mp.   | 5      |
| 25 | flucelvax*.mp.  | 4      |
| 26 | flumist.mp.   | 95     |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24377  |
| 28 | quadrivalent inactivated vaccine*.mp.   | 8      |
| 29 | aTIV.mp.  | 27     |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0      |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11     |
| 32 | Vaccines, Inactivated/  | 5141   |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 14     |
| 34 | HD TIV.mp.  | 2      |
| 35 | vaccine*.mp.  | 295696 |
| 36 | influenza*.mp.  | 126820 |
| 37 | 35 and 36   | 35447  |



|    |   |         |
|----|---|---------|
| 38 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24377   |
| 39 | or/1-34   | 28260   |
| 40 | 35 or 36 or 38 or 39  | 387354  |
| 41 | vaccination*.mp. or vaccination/  | 162166  |
| 42 | immunization*.mp. or immunization/  | 150823  |
| 43 | influenza vaccination*.mp. or influenza vaccination/  | 8098    |
| 44 | influenza*.mp. or influenza/  | 126820  |
| 45 | flu*.mp.  | 1938975 |
| 46 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4394    |
| 47 | 41 or 42 or 43 or 44 or 45 or 46  | 2277879 |
| 48 | ((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw,kf.   | 745935  |
| 49 | Cochrane.jw.  | 14338   |
| 50 | Pregnancy Complications, Infectious/ or pregnant*.mp. or Pregnant Women/ or Pregnancy/ or Pregnancy Complications/  | 883792  |
| 51 | Pregnancy/ or pregnancy.mp.   | 927558  |
| 52 | Pregnancy Complications, Cardiovascular/ or Pregnancy, High-Risk/ or pregnancy high risk*.mp.   | 20332   |
| 53 | 50 or 51 or 52  | 949289  |
| 54 | 40 and 47 and 53  | 9141    |
| 55 | 48 and 54   | 354     |
| 56 | 49 and 54   | 15      |
| 57 | 55 or 56  | 357     |
| 58 | limit 57 to (yr="2008 - 2019" and (danish or english or norwegian or swedish))  | 295     |

**Embase (150719)**Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 142     |
| 2  | agrippal*.mp.   | 126     |
| 3  | influvac*.mp.   | 275     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 471     |
| 6  | trivalent influenza vaccine*.mp.  | 676     |
| 7  | TIV.mp.   | 996     |
| 8  | fluad*.mp.  | 320     |
| 9  | fluarix tetra*.mp.  | 16      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2       |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 13 | QIV.mp.   | 141     |
| 14 | quadrivalent influenza vaccine*.mp.   | 202     |
| 15 | fluenz tetra*.mp.   | 20      |
| 16 | LAIV.mp.  | 581     |
| 17 | live-attenuated influenza vaccine*.mp.  | 755     |



|    |   |        |
|----|---|--------|
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544  |
| 19 | fluarix quadrivalent*.mp.   | 16     |
| 20 | flublok quadrivalent*.mp.   | 5      |
| 21 | flulaval quadrivalent*.mp.  | 15     |
| 22 | fluzone quadrivalent*.mp.   | 12     |
| 23 | fluzone*.mp.  | 614    |
| 24 | QIVc*.mp.   | 9      |
| 25 | flucelvax*.mp.  | 73     |
| 26 | flumist.mp.   | 663    |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544  |
| 28 | quadrivalent inactivated vaccine*.mp.   | 12     |
| 29 | aTIV.mp.  | 28     |
| 30 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 9      |
| 31 | Vaccines, Inactivated/  | 4167   |
| 32 | high dose trivalent inactivated influenza vaccine*.mp.  | 16     |
| 33 | HD TIV.mp.  | 4      |
| 34 | vaccine*.mp.  | 301883 |
| 35 | influenza*.mp.  | 136166 |
| 36 | 35 and "36".mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]            | 3654   |
| 37 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544  |
| 38 | or/1-34   | 302331 |
| 39 | 35 or 36 or 38 or "39".mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 806130 |
| 40 | vaccination*.mp. or vaccination/  | 174623 |
| 41 | immunization*.mp. or immunization/  | 121497 |
| 42 | influenza vaccination*.mp. or influenza vaccination/  | 17919  |



|    |   |         |
|----|---|---------|
| 43 | influenza*.mp. or influenza/  | 136166  |
| 44 | flu*.mp.  | 2052231 |
| 45 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]                | 7666    |
| 46 | 41 or 42 or 43 or 44 or 45 or "46".mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2624030 |
| 47 | (((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.   | 1102484 |
| 48 | Cochrane.jx.  | 20480   |
| 49 | Pregnancy Complications, Infectious/ or pregnant*.mp. or Pregnant Women/ or Pregnancy/ or Pregnancy Complications/  | 440080  |
| 50 | Pregnancy/ or pregnancy.mp.   | 558726  |
| 51 | Pregnancy Complications, Cardiovascular/ or Pregnancy, High-Risk/ or pregnancy high risk*.mp.   | 33846   |
| 52 | 49 or 50 or 51  | 603963  |
| 53 | 39 and 46 and 52  | 9887    |
| 54 | 47 and 53   | 760     |
| 55 | 48 and 53   | 22      |
| 56 | 54 or 55  | 762     |
| 57 | limit 56 to ((danish or english or norwegian or swedish) and yr="2008 - 2019")  | 677     |

**PICO 4 = PICO 1**

**PICO 5 = PICO 1**

**PICO 6**

**Medline (160719)**





Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to July 16, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 15      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucl*.mp.  | 1       |
| 5  | vaxigrip*.mp.  | 97      |
| 6  | trivalent influenza vaccine*.mp.   | 629     |
| 7  | TIV.mp.  | 759     |
| 8  | fluad*.mp.   | 70      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2       |
| 13 | QIV.mp.  | 100     |
| 14 | quadrivalent influenza vaccine*.mp.  | 151     |
| 15 | fluenz tetra*.mp.  | 2       |
| 16 | LAIV.mp.   | 506     |
| 17 | live-attenuated influenza vaccine*.mp.   | 680     |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24389   |



|    |   |         |
|----|---|---------|
| 19 | fluarix quadrivalent*.mp.   | 4       |
| 20 | flublok quadrivalent*.mp.   | 2       |
| 21 | flulaval quadrivalent*.mp.  | 1       |
| 22 | fluzone quadrivalent*.mp.   | 4       |
| 23 | fluzone*.mp.  | 75      |
| 24 | QIVc*.mp.   | 5       |
| 25 | flucelvax*.mp.  | 4       |
| 26 | flumist.mp.   | 96      |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24389   |
| 28 | quadrivalent inactivated vaccine*.mp.   | 8       |
| 29 | aTIV.mp.  | 27      |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0       |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11      |
| 32 | Vaccines, Inactivated/  | 5142    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 14      |
| 34 | HD TIV.mp.  | 2       |
| 35 | vaccine*.mp.  | 295846  |
| 36 | influenza*.mp.  | 126866  |
| 37 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24389   |
| 38 | or/1-37   | 387534  |
| 39 | vaccination*.mp. or vaccination/  | 162263  |
| 40 | immunization*.mp. or immunization/  | 150859  |
| 41 | influenza vaccination*.mp. or influenza vaccination/  | 8101    |
| 42 | influenza*.mp. or influenza/  | 126866  |
| 43 | flu*.mp.  | 1939740 |
| 44 | Cochrane.jw.  | 14340   |
| 45 | (child* or Child Health or Child or children* or (Infant Health or infant* or Infant) or (Child, Pre-school or preschool child*) or (Adolescent or adolescent*)).ti,ab,kw,kf. | 1764777 |



|    |  |         |
|----|--|---------|
| 46 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw,kf. | 1760875 |
| 47 | ((systematic adj3 (review* or study or studies or search*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.   | 269073  |
| 48 | child*.mp. or Child/   | 2336356 |
| 49 | children*.mp.  | 1014118 |
| 50 | Child, Preschool/ or preschool child*.mp.  | 886621  |
| 51 | Adolescent/ or adolescent*.mp.   | 2004219 |
| 52 | limit 51 to ("preschool child (2 to 5 years)" or "child (6 to 12 years)" or "adolescent (13 to 18 years)")   | 1951818 |
| 53 | 48 or 49 or 50 or 51 or 52   | 3365826 |
| 54 | (child* or Child or children* or (Child, Preschool or preschool child*) or (Adolescent or adolescent*) or 52).ti,ab,kw,kf.   | 2918520 |
| 55 | 38 and 46 and 54   | 53506   |
| 56 | 47 and 55  | 819     |
| 57 | limit 56 to yr="2008 - 2019"   | 701     |
| 58 | limit 57 to (danish or english or norwegian or swedish)  | 675     |
| 59 | 44 and 56  | 36      |
| 60 | limit 59 to yr="2008 - 2019"   | 20      |
| 61 | 58 or 60   | 675     |
| 62 | 44 and 55  | 105     |
| 63 | limit 62 to yr="2008 - 2019"   | 73      |
| 64 | 61 or 63   | 728     |

**Embase (170719)**Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| # | Searches     | Results |
|---|--------------|---------|
| 1 | afluria*.mp. | 142     |



|    |   |       |
|----|---|-------|
| 2  | agrippal*.mp.   | 126   |
| 3  | influvac*.mp.   | 275   |
| 4  | preflucel*.mp.  | 23    |
| 5  | vaxigrip*.mp.   | 471   |
| 6  | trivalent influenza vaccine*.mp.  | 676   |
| 7  | TIV.mp.   | 996   |
| 8  | fluad*.mp.  | 320   |
| 9  | fluarix tetra*.mp.  | 16    |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2     |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0     |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4     |
| 13 | QIV.mp.   | 141   |
| 14 | quadrivalent influenza vaccine*.mp.   | 202   |
| 15 | fluenz tetra*.mp.   | 20    |
| 16 | LAIV.mp.  | 581   |
| 17 | live-attenuated influenza vaccine*.mp.  | 755   |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544 |
| 19 | fluarix quadrivalent*.mp.   | 16    |
| 20 | flublok quadrivalent*.mp.   | 5     |
| 21 | flulaval quadrivalent*.mp.  | 15    |
| 22 | fluzone quadrivalent*.mp.   | 12    |
| 23 | fluzone*.mp.  | 614   |
| 24 | QIVc*.mp.   | 9     |
| 25 | flucelvax*.mp.  | 73    |



|    |   |         |
|----|---|---------|
| 26 | flumist.mp.   | 663     |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544   |
| 28 | quadrivalent inactivated vaccine*.mp.   | 12      |
| 29 | aTIV.mp.  | 28      |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0       |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 9       |
| 32 | Vaccines, Inactivated/  | 4167    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 16      |
| 34 | HD TIV.mp.  | 4       |
| 35 | vaccine*.mp.  | 301883  |
| 36 | influenza*.mp.  | 136166  |
| 37 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544   |
| 38 | or/1-37   | 389942  |
| 39 | vaccination*.mp. or vaccination/  | 174623  |
| 40 | immunization*.mp. or immunization/  | 121497  |
| 41 | influenza vaccination*.mp. or influenza vaccination/  | 17919   |
| 42 | influenza*.mp. or influenza/  | 136166  |
| 43 | flu*.mp.  | 2052231 |
| 44 | Cochrane.jw.  | 20480   |
| 45 | ((systematic adj3 (review* or study or studies or search*)) or meta analy* or meta-analy* or meta-analy*).ti,ab,kw.   | 337834  |
| 46 | child*.mp. or Child/  | 1884433 |
| 47 | children*.mp.   | 1006502 |
| 48 | Child, Preschool/ or preschool child*.mp.   | 354290  |
| 49 | Adolescent/ or adolescent*.mp.  | 1159928 |
| 50 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw. | 1674983 |
| 51 | 46 or 47 or 48 or 49  | 2399129 |



|    |   |         |
|----|---|---------|
| 52 | (child* or Child or children* or (Child, Preschool or preschool child*) or (Adolescent or adolescent*)).ti,ab,kw. | 1440150 |
| 53 | 38 and 50   | 212502  |
| 54 | limit 53 to (preschool child <1 to 6 years> or school child <7 to 12 years> or adolescent <13 to 17 years>)       | 26905   |
| 55 | 52 and 53   | 38968   |
| 56 | 54 or 55  | 49599   |
| 57 | 45 and 56   | 925     |
| 58 | 44 and 56   | 121     |
| 59 | 57 or 58  | 1011    |
| 60 | limit 59 to ((danish or english or norwegian or swedish) and yr="2008 - 2019")                                    | 827     |

**PICO 7**

Medline (170719)

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process &amp; Other Non-Indexed Citations, Daily and Versions(R) 1946 to July 16, 2019

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 15      |
| 2  | agrippal*.mp.   | 27      |
| 3  | influvac*.mp.   | 31      |
| 4  | preflucel*.mp.  | 1       |
| 5  | vaxigrip*.mp.   | 97      |
| 6  | trivalent influenza vaccine*.mp.  | 629     |
| 7  | TIV.mp.   | 759     |
| 8  | fluad*.mp.  | 70      |
| 9  | fluarix tetra*.mp.  | 3       |
| 10 | flucelvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, | 1       |



|    |   |       |
|----|---|-------|
|    | protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  |       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 0     |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2     |
| 13 | QIV.mp.   | 100   |
| 14 | quadrivalent influenza vaccine*.mp.   | 151   |
| 15 | fluenz tetra*.mp.   | 2     |
| 16 | LAIV.mp.  | 506   |
| 17 | live-attenuated influenza vaccine*.mp.  | 680   |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24389 |
| 19 | fluarix quadrivalent*.mp.   | 4     |
| 20 | flublok quadrivalent*.mp.   | 2     |
| 21 | flulaval quadrivalent*.mp.  | 1     |
| 22 | fluzone quadrivalent*.mp.   | 4     |
| 23 | fluzone*.mp.  | 75    |
| 24 | QIVc*.mp.   | 5     |
| 25 | flucelvax*.mp.  | 4     |
| 26 | flumist.mp.   | 96    |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24389 |
| 28 | quadrivalent inactivated vaccine*.mp.   | 8     |
| 29 | aTIV.mp.  | 27    |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0     |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11    |
| 32 | Vaccines, Inactivated/  | 5142  |



|    |  |         |
|----|--|---------|
| 33 | high dose trivalent inactivated influenza vaccine*.mp.   | 14      |
| 34 | HD TIV.mp.   | 2       |
| 35 | vaccine*.mp.   | 295846  |
| 36 | influenza*.mp.   | 126866  |
| 37 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24389   |
| 38 | or/1-37  | 387534  |
| 39 | vaccination*.mp. or vaccination/   | 162263  |
| 40 | immunization*.mp. or immunization/   | 150859  |
| 41 | influenza vaccination*.mp. or influenza vaccination/   | 8101    |
| 42 | influenza*.mp. or influenza/   | 126866  |
| 43 | flu*.mp.   | 1939740 |
| 44 | Cochrane.jw.   | 14340   |
| 45 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw,kf. | 1760875 |
| 46 | ((systematic adj3 (review* or study or studies or search*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.   | 269073  |
| 47 | Infant/ or infant*.mp.   | 1221565 |
| 48 | 38 and 45  | 225434  |
| 49 | limit 48 to ("all infant (birth to 23 months)" or "newborn infant (birth to 1 month)" or "infant (1 to 23 months)")  | 31056   |
| 50 | 47 and 48  | 34804   |
| 51 | 49 or 50   | 34804   |
| 52 | 46 and 51  | 428     |
| 53 | limit 52 to (yr="2008 - 2019" and (danish or english or norwegian or swedish))   | 345     |
| 54 | 38 and 44 and 45 and 47  | 53      |
| 55 | limit 54 to yr="2008 - 2019"   | 43      |
| 56 | 53 or 55   | 374     |

**Embase (170719)**





Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 142     |
| 2  | agrippal*.mp.   | 126     |
| 3  | influvac*.mp.   | 275     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 471     |
| 6  | trivalent influenza vaccine*.mp.  | 676     |
| 7  | TIV.mp.   | 996     |
| 8  | fluad*.mp.  | 320     |
| 9  | fluarix tetra*.mp.  | 16      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2       |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 13 | QIV.mp.   | 141     |
| 14 | quadrivalent influenza vaccine*.mp.   | 202     |
| 15 | fluenz tetra*.mp.   | 20      |
| 16 | LAIV.mp.  | 581     |
| 17 | live-attenuated influenza vaccine*.mp.  | 755     |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544   |
| 19 | fluarix quadrivalent*.mp.   | 16      |
| 20 | flublok quadrivalent*.mp.   | 5       |



|    |   |         |
|----|---|---------|
| 21 | flulaval quadrivalent*.mp.  | 15      |
| 22 | fluzone quadrivalent*.mp.   | 12      |
| 23 | fluzone*.mp.  | 614     |
| 24 | QIVc*.mp.   | 9       |
| 25 | flucelvax*.mp.  | 73      |
| 26 | flumist.mp.   | 663     |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544   |
| 28 | quadrivalent inactivated vaccine*.mp.   | 12      |
| 29 | aTIV.mp.  | 28      |
| 30 | adjuvanted trivalent inactivated *.mp.  | 0       |
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 9       |
| 32 | Vaccines, Inactivated/  | 4167    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 16      |
| 34 | HD TIV.mp.  | 4       |
| 35 | vaccine*.mp.  | 301883  |
| 36 | influenza*.mp.  | 136166  |
| 37 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32544   |
| 38 | or/1-37   | 389942  |
| 39 | vaccination*.mp. or vaccination/  | 174623  |
| 40 | immunization*.mp. or immunization/  | 121497  |
| 41 | influenza vaccination*.mp. or influenza vaccination/  | 17919   |
| 42 | influenza*.mp. or influenza/  | 136166  |
| 43 | flu*.mp.  | 2052231 |
| 44 | Cochrane.jx.  | 20480   |
| 45 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw. | 1674983 |
| 46 | ((systematic adj3 (review* or study or studies or search*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.  | 337834  |
| 47 | Infant/ or infant*.mp.  | 575957  |



|    |   |        |
|----|---|--------|
| 48 | 38 and 45   | 212502 |
| 49 | 47 and 48   | 22120  |
| 50 | 38 and 44 and 45 and 47                                 | 47     |
| 51 | limit 50 to yr="2008 - 2019"                            | 37     |
| 52 | 38 and 45 and 46  | 2727   |
| 53 | limit 52 to (infant or child )                          | 360    |
| 54 | 47 and 52   | 302    |
| 55 | 53 or 54  | 553    |
| 56 | limit 55 to yr="2008 - 2019"                            | 477    |
| 57 | 51 or 56  | 506    |
| 58 | limit 57 to (danish or english or norwegian or swedish) | 480    |

## PICO 8

### Medline (160719)

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to July 15, 2019

Search Strategy:

| # | Searches                         | Results |
|---|----------------------------------|---------|
| 1 | afluria*.mp.                     | 15      |
| 2 | agrippal*.mp.                    | 27      |
| 3 | influvac*.mp.                    | 31      |
| 4 | preflucl*.mp.                    | 1       |
| 5 | vaxigrip*.mp.                    | 97      |
| 6 | trivalent influenza vaccine*.mp. | 629     |
| 7 | TIV.mp.                          | 759     |
| 8 | fluad*.mp.                       | 70      |
| 9 | fluarix tetra*.mp.               | 3       |



|    |  |       |
|----|--|-------|
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1     |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0     |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2     |
| 13 | QIV.mp.  | 100   |
| 14 | quadrivalent influenza vaccine*.mp.  | 150   |
| 15 | fluenz tetra*.mp.  | 2     |
| 16 | LAIV.mp.   | 505   |
| 17 | live-attenuated influenza vaccine*.mp.   | 679   |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24377 |
| 19 | fluarix quadrivalent*.mp.  | 4     |
| 20 | flublok quadrivalent*.mp.  | 2     |
| 21 | flulaval quadrivalent*.mp.   | 1     |
| 22 | fluzone quadrivalent*.mp.  | 4     |
| 23 | fluzone*.mp.   | 74    |
| 24 | QIVc*.mp.  | 5     |
| 25 | flucelvax*.mp.   | 4     |
| 26 | flumist.mp.  | 95    |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24377 |
| 28 | quadrivalent inactivated vaccine*.mp.  | 8     |
| 29 | aTIV.mp.   | 27    |
| 30 | adjuvanted trivalent inactivated *.mp.   | 0     |



|    |   |         |
|----|---|---------|
| 31 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11      |
| 32 | Vaccines, Inactivated/  | 5141    |
| 33 | high dose trivalent inactivated influenza vaccine*.mp.  | 14      |
| 34 | HD TIV.mp.  | 2       |
| 35 | vaccine*.mp.  | 295696  |
| 36 | influenza*.mp.  | 126820  |
| 37 | 35 and 36   | 35447   |
| 38 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24377   |
| 39 | or/1-34   | 28260   |
| 40 | 35 or 36 or 38 or 39  | 387354  |
| 41 | vaccination*.mp. or vaccination/  | 162166  |
| 42 | immunization*.mp. or immunization/  | 150823  |
| 43 | influenza vaccination*.mp. or influenza vaccination/  | 8098    |
| 44 | influenza*.mp. or influenza/  | 126820  |
| 45 | flu*.mp.  | 1938975 |
| 46 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4394    |
| 47 | 41 or 42 or 43 or 44 or 45 or 46  | 2277879 |
| 48 | ((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw,kf.   | 745935  |
| 49 | Cochrane.jw.  | 14338   |
| 50 | Health Personnel/ or health care worker*.mp. or "Attitude of Health Personnel"/   | 158093  |
| 51 | Primary Health Care/ or health care provider*.mp.   | 103876  |
| 52 | Social Workers/ or social worker*.mp.   | 9487    |
| 53 | nurse*.mp. or Nurse-Patient Relations/  | 343755  |
| 54 | Physician-Nurse Relations/ or physician*.mp. or Physician Assistants/ or Physician-Patient Relations/   | 540661  |



|    |   |         |
|----|---|---------|
| 55 | General Practitioners/ or practioner*.mp.               | 7418    |
| 56 | Nurse Practitioners/ or nurse practioner*.mp.           | 17111   |
| 57 | 50 or 51 or 52 or 53 or 54 or 55 or 56                  | 1011902 |
| 58 | 40 and 47 and 48 and 57                                 | 588     |
| 59 | 47 and 49 and 58  | 9       |
| 60 | 58 or 59  | 588     |
| 61 | limit 60 to yr="2008 - 2019"                            | 477     |
| 62 | limit 61 to (danish or english or norwegian or swedish) | 442     |

## Embase (160719)

Database(s): **Embase** 1996 to 2019 Week 28

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 142     |
| 2  | agrippal*.mp.   | 126     |
| 3  | influvac*.mp.   | 275     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 471     |
| 6  | trivalent influenza vaccine*.mp.  | 676     |
| 7  | TIV.mp.   | 996     |
| 8  | fluad*.mp.  | 320     |
| 9  | fluarix tetra*.mp.  | 16      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 2       |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0       |



|    |  |        |
|----|--|--------|
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 4      |
| 13 | QIV.mp.  | 141    |
| 14 | quadrivalent influenza vaccine*.mp.  | 202    |
| 15 | fluenz tetra*.mp.  | 20     |
| 16 | LAIV.mp.   | 581    |
| 17 | live-attenuated influenza vaccine*.mp.   | 755    |
| 18 | Influenza Vaccines/ or influenza vaccine*.mp.  | 32544  |
| 19 | fluarix quadrivalent*.mp.  | 16     |
| 20 | flublok quadrivalent*.mp.  | 5      |
| 21 | flulaval quadrivalent*.mp.   | 15     |
| 22 | fluzone quadrivalent*.mp.  | 12     |
| 23 | fluzone*.mp.   | 614    |
| 24 | QIVc*.mp.  | 9      |
| 25 | flucelvax*.mp.   | 73     |
| 26 | flumist.mp.  | 663    |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.  | 32544  |
| 28 | quadrivalent inactivated vaccine*.mp.  | 12     |
| 29 | aTIV.mp.   | 28     |
| 30 | adjuvanted trivalent inactivated influenza vaccine*.mp.  | 9      |
| 31 | Vaccines, Inactivated/   | 4167   |
| 32 | high dose trivalent inactivated influenza vaccine*.mp.   | 16     |
| 33 | HD TIV.mp.   | 4      |
| 34 | vaccine*.mp.   | 301883 |
| 35 | influenza*.mp.   | 136166 |
| 36 | Influenza Vaccines/ or influenza vaccine*.mp.  | 32544  |
| 37 | vaccination*.mp. or vaccination/   | 174623 |
| 38 | immunization*.mp. or immunization/   | 121497 |



|    |  |         |
|----|--|---------|
| 39 | influenza vaccination*.mp. or influenza vaccination/   | 17919   |
| 40 | influenza*.mp. or influenza/   | 136166  |
| 41 | flu*.mp.   | 2052231 |
| 42 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 7666    |
| 43 | ((systematic or method* or rapid or integrative) adj3 (review* or overview* or study or studies or search* or approach*)) or meta analy* or meta-analy* or metaanaly*).ti,ab,kw.                               | 1102484 |
| 44 | Cochrane.jx.   | 20480   |
| 45 | Health Personnel/ or health care worker*.mp. or "Attitude of Health Personnel"/  | 160210  |
| 46 | Primary Health Care/ or health care provider*.mp.  | 84809   |
| 47 | Social Workers/ or social worker*.mp.  | 14301   |
| 48 | nurse*.mp. or Nurse-Patient Relations/   | 306985  |
| 49 | Physician-Nurse Relations/ or physician*.mp. or Physician Assistants/ or Physician-Patient Relations/  | 622600  |
| 50 | General Practitioners/ or practioner*.mp.  | 77595   |
| 51 | Nurse Practitioners/ or nurse practioner*.mp.  | 14857   |
| 52 | or/1-37  | 427160  |
| 53 | 37 or 38 or 39 or 40 or 41 or 42   | 2357497 |
| 54 | 45 or 46 or 47 or 48 or 49 or 50 or 51   | 1076996 |
| 55 | 52 and 53 and 54   | 20895   |
| 56 | 43 and 55  | 1417    |
| 57 | 44 and 55  | 22      |
| 58 | 56 or 57   | 1422    |
| 59 | limit 58 to yr="2008 - 2019"   | 1201    |
| 60 | limit 59 to (danish or english or norwegian or swedish)  | 1153    |





## Supplerende søgeprotokol primær litteratur

|                              |  |
|------------------------------|--|
| <b>Projekttitel/aspekt</b>   | <b>MTV for influenza vaccine – søgning på PICOs – primær litteratur</b>  |
| <b>Kontakt /projektleder</b> | Katrine Finderup Nielsen<br>Vibe Cecilie Ballegaard<br>Henriette Callesen  |
| <b>Søgespecialist</b>        | Birgitte Holm Petersen   |
| <b>Senest opdateret</b>      | 1. oktober 2019  |
| <b>Baggrund</b>              | <p>Fokuserede spørgsmål – MTV for influenzavaccination</p> <p>PICO 1: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: ældre på 65 år eller derover.</p> <p>PICO 2: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: øvrige risikogrupper, kroniske syge</p> <p>PICO 3: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: Gravide</p> <p>PICO 4: Hvad er effekten af vaccination med en 3-valent adjuveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: ældre på 65 år eller derover.</p> <p>PICO 5: Hvad er effekten af vaccination med en high-dose influenza vaccine sammenlignet med andre inaktiverede influenzavacciner?<br/>Population: ældre på 65 år eller derover.</p> <p>PICO 6: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn over 2 år?</p> <p>PICO 7: Hvad er effekten af vaccination med en inaktiveret influenza vaccine til raske børn under 2 år?</p> <p>PICO 8: Hvad er effekten af influenzavaccination af sundhedspersonale?</p> |
| <b>Søgetermer</b>            | Se søgestrategien for hvert PICO   |



|  |   |
|--|---|
| <b>Inklusions- og eksklusionskriterier</b> | Sprog: dansk, engelsk, norsk og svensk<br>År: angivet søgestrategien for hvert PICO<br>Population: angivet i søgestrategien for hvert PICO<br>Publikationstyper: (RCT, cohort, observationelle studier) |
|--|---|

### Informationskilder

| DATABASER             | INTERFACE   | FUND | DATO FOR SØGNING        |
|-----------------------|-------------|------|-------------------------|
| Medline               | OVID        |      | 5.til 30.september 2019 |
| Embase                | OVID        |      | 5.til 30.september 2019 |
| Clinical Trials. Gov. | Internettet |      | 5.til 30.september 2019 |

### Note:

- Søgetermer og inklusions- og eksklusionskriterier er tilpasset de enkelte databaser.
- Dubletter er så vidt muligt frasorteret ved hjælp af RefWorks.
- Referencerne overføres til Covidence, hvor fuldteksterne lægges på.
- Søgestrategi for hver enkelt database præsenteres – hvis muligt vises det eksplicit hvor mange referencer den enkelte søgestreng genererer

### Søgestrategi

#### PICO 1 primær (aged)

Clinical trials.gov (050919)

177 Studies found for: **vaccines,vaccination,elderly | Completed Studies | Studies With Results | Influenza | Older Adult**

Also searched for **Older adult, Vaccination, Vaccines** and more. [See Search Details](#)

| Terms                               | Search Results* | Entire Database** |
|-------------------------------------|-----------------|-------------------|
| Synonyms                            |                 |                   |
| <b>vaccines,vaccination,elderly</b> | --              | 0 studies         |
| <b>elderly</b>                      | 177 studies     | 244,893 studies   |
| older adult                         | 177 studies     | 240,375 studies   |
| Aged                                | 79 studies      | 8,426 studies     |
| Geriatrics                          | 3 studies       | 1,998 studies     |
| Senescence                          | 1 studies       | 102 studies       |
| Advanced age                        | --              | 108 studies       |



| Terms              | Search Results* | Entire Database** |
|--------------------|-----------------|-------------------|
| Synonyms           |                 |                   |
| Old age            | --              | 221 studies       |
| Senior Citizen     | --              | 24 studies        |
| <b>vaccination</b> | 177 studies     | 8,764 studies     |
| vaccines           | 177 studies     | 8,066 studies     |
| Immunization       | 20 studies      | 1,860 studies     |
| inoculations       | --              | 203 studies       |
| VACCIN             | --              | 33 studies        |
| <b>vaccines</b>    | 177 studies     | 8,764 studies     |
| Vaccination        | 163 studies     | 5,360 studies     |
| Immunization       | 20 studies      | 1,860 studies     |
| inoculations       | --              | 203 studies       |
| VACCIN             | --              | 33 studies        |
| <b>Influenza</b>   | 177 studies     | 2,220 studies     |
| Fluzone            | 21 studies      | 74 studies        |
| Fluarix            | 21 studies      | 47 studies        |
| Flu                | 17 studies      | 376 studies       |
| Fluviral           | 5 studies       | 15 studies        |
| fluvirin           | 2 studies       | 4 studies         |
| flumist            | 1 studies       | 44 studies        |
| Agriflu            | --              | 1 studies         |
| Flucelvax          | --              | 3 studies         |
| FluLaval           | --              | 4 studies         |
| flus               | --              | 1 studies         |
| flushield          | --              | 1 studies         |
| Grippe             | --              | 77 studies        |



- No studies found
- \* Number of studies in the search results containing the term or synonym
- \*\* Number of studies in the entire database containing the term or synonym

**Medline (060919)**

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 05, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 16      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 98      |
| 6  | trivalent influenza vaccine*.mp.   | 636     |
| 7  | TIV.mp.  | 764     |
| 8  | fluad*.mp.   | 71      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2       |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0       |



|    |   |        |
|----|---|--------|
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2      |
| 13 | quadrivalent influenza vaccine*.mp.   | 158    |
| 14 | fluenz tetra*.mp.   | 2      |
| 15 | LAIV.mp.  | 514    |
| 16 | live-attenuated influenza vaccine*.mp.  | 693    |
| 17 | QIV*.mp.  | 158    |
| 18 | fluarix quadrivalent*.mp.   | 4      |
| 19 | flublok quadrivalent*.mp.   | 2      |
| 20 | flulaval quadrivalent*.mp.  | 1      |
| 21 | fluzone*.mp.  | 78     |
| 22 | flucelvax*.mp.  | 7      |
| 23 | flumist*.mp.  | 96     |
| 24 | quadrivalent inactivated vaccine*.mp.   | 9      |
| 25 | Vaccines, Inactivated/  | 5168   |
| 26 | aTIV.mp.  | 27     |
| 27 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11     |
| 28 | adjuvanted trivalent vaccine*.mp.   | 6      |
| 29 | high dose trivalent inactivated influenza vaccine*.mp.  | 14     |
| 30 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24551  |
| 31 | or/1-30   | 28504  |
| 32 | vaccination*.mp. or Vaccination/  | 163369 |
| 33 | Immunization/ or immunization*.mp.  | 151461 |
| 34 | influenza vaccination*.mp.  | 8198   |
| 35 | vaccination*.mp. or Vaccination/  | 163369 |



|    |  |         |
|----|--|---------|
| 36 | flu*.mp.   | 1951582 |
| 37 | seasonal influenza*.mp.  | 4448    |
| 38 | seasonal flu*.mp.  | 2066    |
| 39 | "Aged, 80 and over"/ or Aged/ or aged*.mp.   | 5139132 |
| 40 | elderly.mp.  | 243736  |
| 41 | 32 or 33 or 34 or 35 or 36 or 37 or 38   | 2207349 |
| 42 | 39 or 40   | 5187033 |
| 43 | 31 and 41 and 42   | 7566    |
| 44 | Randomized Controlled Trials as Topic/ or RCT*.mp.   | 153140  |
| 45 | randomized controlled trial*.mp.   | 661802  |
| 46 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.   | 627999  |
| 47 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1534186 |
| 48 | (cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent*).ti,ab,kw,kf.   | 2734359 |
| 49 | 44 or 45 or 46 or 47 or 48   | 3558393 |
| 50 | 43 and 49  | 2780    |
| 51 | limit 50 to yr="2014 - 2019"   | 1018    |
| 52 | 51 not child*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 701     |



Database(s): **Embase** 1996 to 2019 Week 35

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 143     |
| 2  | agrippal*.mp.   | 128     |
| 3  | influvac*.mp.   | 277     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 473     |
| 6  | trivalent influenza vaccine*.mp.  | 687     |
| 7  | TIV.mp.   | 1011    |
| 8  | fluad*.mp.  | 323     |
| 9  | fluarix tetra*.mp.  | 16      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 3       |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 13 | quadrivalent influenza vaccine*.mp.   | 210     |
| 14 | fluenz tetra*.mp.   | 20      |
| 15 | LAIV.mp.  | 596     |
| 16 | live-attenuated influenza vaccine*.mp.  | 772     |
| 17 | QIV*.mp.  | 244     |
| 18 | fluarix quadrivalent*.mp.   | 18      |



|    |   |         |
|----|---|---------|
| 19 | flublok quadrivalent*.mp.                               | 5       |
| 20 | flulaval quadrivalent*.mp.                              | 16      |
| 21 | fluzone*.mp.  | 623     |
| 22 | flucelvax*.mp.  | 77      |
| 23 | flumist*.mp.  | 664     |
| 24 | quadrivalent inactivated vaccine*.mp.                   | 12      |
| 25 | Vaccines, Inactivated/                                  | 4205    |
| 26 | aTIV.mp.  | 29      |
| 27 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 10      |
| 28 | adjuvanted trivalent vaccine*.mp.                       | 5       |
| 29 | high dose trivalent inactivated influenza vaccine*.mp.  | 16      |
| 30 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32918   |
| 31 | or/1-30   | 36366   |
| 32 | vaccination*.mp. or Vaccination/                        | 176937  |
| 33 | Immunization/ or immunization*.mp.                      | 122865  |
| 34 | influenza vaccination*.mp.                              | 18163   |
| 35 | vaccination*.mp. or Vaccination/                        | 176937  |
| 36 | flu*.mp.  | 2078159 |
| 37 | seasonal influenza*.mp.                                 | 7770    |
| 38 | seasonal flu*.mp.                                       | 1978    |
| 39 | "Aged, 80 and over"/ or Aged/ or aged*.mp.              | 3358813 |
| 40 | elderly.mp.   | 445879  |
| 41 | 32 or 33 or 34 or 35 or 36 or 37 or 38                  | 2312834 |
| 42 | 39 or 40  | 3422813 |
| 43 | 31 and 41 and 42  | 7153    |
| 44 | Randomized Controlled Trials as Topic/ or RCT*.mp.      | 154931  |





|    |  |         |
|----|--|---------|
| 45 | randomized controlled trial*.mp.   | 726684  |
| 46 | ((((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.  | 782444  |
| 47 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*).ti,ab,kw. | 2040214 |
| 48 | (cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent*).ti,ab,kw.  | 3743215 |
| 49 | 44 or 45 or 46 or 47 or 48   | 4620132 |
| 50 | 43 and 49  | 2740    |
| 51 | limit 50 to yr="2014 - 2019"   | 1243    |
| 52 | 51 not child*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]   | 849     |

**PICO 2 primær (Chronic)**

Clinical trials.gov (090919)

54 Studies found for: **vaccine, chronic | Completed Studies | Studies With Results | Influenza**Applied Filters:  **Completed**  **With Results**

Terms and Synonyms Searched:

| Terms                   | Search Results* | Entire Database** |
|-------------------------|-----------------|-------------------|
| Synonyms                |                 |                   |
| <b>vaccine, chronic</b> | --              | 2 studies         |
| <b>chronic</b>          | 54 studies      | 34,226 studies    |
| <b>vaccine</b>          | 54 studies      | 8,769 studies     |
| Vaccination             | 49 studies      | 5,365 studies     |



| Terms            | Search Results* | Entire Database** |
|------------------|-----------------|-------------------|
| Synonyms         |                 |                   |
| Immunization     | 5 studies       | 1,861 studies     |
| inoculations     | --              | 203 studies       |
| VACCIN           | --              | 33 studies        |
| <b>Influenza</b> | 54 studies      | 2,222 studies     |
| flumist          | 10 studies      | 44 studies        |
| Fluarix          | 4 studies       | 47 studies        |
| Flu              | 4 studies       | 378 studies       |
| Fluzone          | 2 studies       | 74 studies        |
| Agriflu          | 1 studies       | 1 studies         |
| fluvirin         | 1 studies       | 4 studies         |
| Flucelvax        | --              | 3 studies         |
| FluLaval         | --              | 4 studies         |
| flus             | --              | 1 studies         |
| flushield        | --              | 1 studies         |
| Fluviral         | --              | 15 studies        |
| Grippe           | --              | 77 studies        |

**Medline (090919)**

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 06, 2019

Search Strategy:

| # | Searches      | Results |
|---|---------------|---------|
| 1 | afluria*.mp.  | 16      |
| 2 | agrippal*.mp. | 27      |
| 3 | influvac*.mp. | 31      |



|    |  |     |
|----|--|-----|
| 4  | preflucel*.mp.   | 1   |
| 5  | vaxigrip*.mp.  | 98  |
| 6  | trivalent influenza vaccine*.mp.   | 636 |
| 7  | TIV.mp.  | 764 |
| 8  | fluad*.mp.   | 71  |
| 9  | fluarix tetra*.mp.   | 3   |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2   |
| 11 | influvac tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 0   |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2   |
| 13 | quadrivalent influenza vaccine*.mp.  | 158 |
| 14 | fluenz tetra*.mp.  | 2   |
| 15 | LAIV.mp.   | 514 |
| 16 | live-attenuated influenza vaccine*.mp.   | 693 |
| 17 | QIV*.mp.   | 158 |
| 18 | fluarix quadrivalent*.mp.  | 4   |
| 19 | flublok quadrivalent*.mp.  | 2   |
| 20 | flulaval quadrivalent*.mp.   | 1   |
| 21 | fluzone*.mp.   | 78  |
| 22 | flucelvax*.mp.   | 7   |



|    |  |         |
|----|--|---------|
| 23 | flumist*.mp.   | 96      |
| 24 | quadrivalent inactivated vaccine*.mp.  | 9       |
| 25 | Vaccines, Inactivated/   | 5168    |
| 26 | aTIV.mp.   | 27      |
| 27 | adjuvanted trivalent inactivated influenza vaccine*.mp.  | 11      |
| 28 | adjuvanted trivalent vaccine*.mp.  | 6       |
| 29 | high dose trivalent inactivated influenza vaccine*.mp.   | 14      |
| 30 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24557   |
| 31 | or/1-30  | 28510   |
| 32 | vaccination*.mp. or Vaccination/   | 163413  |
| 33 | Immunization/ or immunization*.mp.   | 151485  |
| 34 | influenza vaccination*.mp.   | 8201    |
| 35 | vaccination*.mp. or Vaccination/   | 163413  |
| 36 | flu*.mp.   | 1952048 |
| 37 | seasonal influenza*.mp.  | 4450    |
| 38 | seasonal flu*.mp.  | 2067    |
| 39 | randomized controlled trial*.mp.   | 661979  |
| 40 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.   | 628259  |
| 41 | randomized controlled trial/ or RCT*.mp.   | 527533  |
| 42 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1534906 |
| 43 | Observational study/ or Multicenter study/ or Evaluation study/ or exp comparative study/ or intervention study/ or exp longitudinal study/ or prospective study/ or retrospective   | 3715697 |



|    |   |         |
|----|---|---------|
|    | study/ or Follow up/ or validation study/ or cohort analysis/ or cross-sectional study/ or crossover procedure/ or double blind procedure/ or single blind procedure/ |         |
| 44 | (randomized controlled trial*or RCT* or observational study or observational stud* or cohort studies or cohort stud*).ti,ab,kw,kf.                                    | 278212  |
| 45 | Chronic Disease/ or chronic disease*.mp.  | 302738  |
| 46 | chronic illness*.mp.  | 15319   |
| 47 | illness.mp.   | 479708  |
| 48 | risk group*.mp.   | 40235   |
| 49 | immunocompromising*.mp.   | 324     |
| 50 | immunocompromised*.mp.  | 43435   |
| 51 | Acquired Immunodeficiency Syndrome/ or immunodeficiency*.mp.  | 196538  |
| 52 | Heart Diseases/ or cardiac disease*.mp.   | 82824   |
| 53 | Diabetes Mellitus/ or diabetes*.mp.   | 587320  |
| 54 | Respiratory Tract Diseases/ or chronic respiratory condition*.mp.   | 21882   |
| 55 | Lung Diseases, Obstructive/ or Pulmonary Disease, Chronic Obstructive/ or chronic obstructive pulmonary disease*.mp.  | 71701   |
| 56 | COPD.mp. or Pulmonary Disease, Chronic Obstructive/   | 53296   |
| 57 | asthma.mp. or Asthma/   | 169021  |
| 58 | Nervous System Diseases/ or chronic neurologic condition*.mp.   | 42595   |
| 59 | Autoimmune Diseases/ or autoimmune disease*.mp.   | 94891   |
| 60 | Liver Diseases/ or chronic liver disease*.mp.   | 80841   |
| 61 | Liver Diseases/ or liver disease*.mp.   | 147002  |
| 62 | cancer.mp. or Neoplasms/  | 1806951 |
| 63 | or/45-62  | 3801965 |
| 64 | 39 or 40 or 41 or 42 or 43 or 44  | 4710645 |
| 65 | or/32-38  | 2207866 |
| 66 | 31 and 63 and 64 and 65   | 1623    |



|    |   |         |
|----|---|---------|
| 67 | limit 66 to yr="2008 - 2019"  | 1044    |
| 68 | 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62  | 3801965 |
| 69 | (Chronic Disease or chronic disease* or chronic illness* or illness or risk group* or immunocompromising* or immunocompromised* or (Acquired Immunodeficiency Syndrome or immunodeficiency*) or (Heart Diseases or cardiac disease*) or (Diabetes Mellitus or diabetes*) or (Respiratory Tract Diseases or chronic respiratory condition*) or (Lung Diseases, Obstructive or Pulmonary Disease, Chronic Obstructive or chronic obstructive pulmonary disease*) or (COPD or Pulmonary Disease, Chronic Obstructive) or (asthma or Asthma) or (Nervous System Diseases or chronic neurologic condition*) or (Autoimmune Diseases or autoimmune disease*) or (Liver Diseases or chronic liver disease*) or (Liver Diseases or liver disease*) or (cancer or Neoplasms)).ti,ab,kw,kf. | 2997852 |
| 70 | 31 and 64 and 65 and 69   | 1457    |
| 71 | limit 70 to (yr="2014 - 2019" and (danish or english or norwegian or swedish))  | 492     |

**Embase** (090919)Database(s): **Embase** 1996 to 2019 Week 36

## Search Strategy:

| # | Searches                         | Results |
|---|----------------------------------|---------|
| 1 | afluria*.mp.                     | 144     |
| 2 | agrippal*.mp.                    | 129     |
| 3 | influvac*.mp.                    | 277     |
| 4 | preflucel*.mp.                   | 23      |
| 5 | vaxigrip*.mp.                    | 474     |
| 6 | trivalent influenza vaccine*.mp. | 690     |
| 7 | TIV.mp.                          | 1011    |
| 8 | fluad*.mp.                       | 323     |
| 9 | fluarix tetra*.mp.               | 17      |



|    |   |       |
|----|---|-------|
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 3     |
| 11 | influvac tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 0     |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4     |
| 13 | quadrivalent influenza vaccine*.mp.   | 211   |
| 14 | fluenz tetra*.mp.   | 20    |
| 15 | LAIV.mp.  | 600   |
| 16 | live-attenuated influenza vaccine*.mp.  | 777   |
| 17 | QIV*.mp.  | 244   |
| 18 | fluarix quadrivalent*.mp.   | 18    |
| 19 | flublok quadrivalent*.mp.   | 5     |
| 20 | flulaval quadrivalent*.mp.  | 16    |
| 21 | fluzone*.mp.  | 627   |
| 22 | flucelvax*.mp.  | 78    |
| 23 | flumist*.mp.  | 668   |
| 24 | quadrivalent inactivated vaccine*.mp.   | 12    |
| 25 | Vaccines, Inactivated/  | 4213  |
| 26 | aTIV.mp.  | 29    |
| 27 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 10    |
| 28 | adjuvanted trivalent vaccine*.mp.   | 5     |
| 29 | high dose trivalent inactivated influenza vaccine*.mp.  | 16    |
| 30 | Influenza Vaccines/ or influenza vaccine*.mp.   | 32983 |



|    |   |         |
|----|---|---------|
| 31 | or/1-30   | 36440   |
| 32 | vaccination*.mp. or Vaccination/  | 177346  |
| 33 | Immunization/ or immunization*.mp.  | 123058  |
| 34 | influenza vaccination*.mp.  | 18218   |
| 35 | vaccination*.mp. or Vaccination/  | 177346  |
| 36 | flu*.mp.  | 2082470 |
| 37 | seasonal influenza*.mp.   | 7800    |
| 38 | seasonal flu*.mp.   | 1983    |
| 39 | randomized controlled trial*.mp.  | 728717  |
| 40 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.   | 784465  |
| 41 | randomized controlled trial/ or RCT*.mp.  | 574510  |
| 42 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw. | 2046486 |
| 43 | Observational study/ or Multicenter study/ or Evaluation study/ or exp comparative study/ or intervention study/ or exp longitudinal study/ or prospective study/ or retrospective study/ or Follow up/ or validation study/ or cohort analysis/ or cross-sectional study/ or crossover procedure/ or double blind procedure/ or single blind procedure/          | 4104077 |
| 44 | (randomized controlled trial*or RCT* or observational study or observational stud* or cohort studies or cohort stud*).ti,ab,kw.   | 416068  |
| 45 | Chronic Disease/ or chronic disease*.mp.  | 177502  |
| 46 | chronic illness*.mp.  | 19318   |
| 47 | illness.mp.   | 301829  |
| 48 | risk group*.mp.   | 57512   |
| 49 | immunocompromising*.mp.   | 415     |
| 50 | immunocompromised*.mp.  | 44090   |





|    |  |         |
|----|--|---------|
| 51 | Acquired Immunodeficiency Syndrome/ or immunodeficiency*.mp.   | 407228  |
| 52 | Heart Diseases/ or cardiac disease*.mp.  | 28869   |
| 53 | Diabetes Mellitus/ or diabetes*.mp.  | 875604  |
| 54 | Respiratory Tract Diseases/ or chronic respiratory condition*.mp.  | 18152   |
| 55 | Lung Diseases, Obstructive/ or Pulmonary Disease, Chronic Obstructive/ or chronic obstructive pulmonary disease*.mp.   | 99725   |
| 56 | COPD.mp. or Pulmonary Disease, Chronic Obstructive/  | 90685   |
| 57 | asthma.mp. or Asthma/  | 224564  |
| 58 | Nervous System Diseases/ or chronic neurologic condition*.mp.  | 26467   |
| 59 | Autoimmune Diseases/ or autoimmune disease*.mp.  | 120589  |
| 60 | Liver Diseases/ or chronic liver disease*.mp.  | 40630   |
| 61 | Liver Diseases/ or liver disease*.mp.  | 177345  |
| 62 | cancer.mp. or Neoplasms/   | 2874430 |
| 63 | 39 or 40 or 41 or 42 or 43 or 44   | 5141508 |
| 64 | or/32-38   | 2317611 |
| 65 | (Chronic Disease or chronic disease* or chronic illness* or illness or risk group* or immunocompromising* or immunocompromised* or (Acquired Immunodeficiency Syndrome or immunodeficiency*) or (Heart Diseases or cardiac disease*) or (Diabetes Mellitus or diabetes*) or (Respiratory Tract Diseases or chronic respiratory condition*) or (Lung Diseases, Obstructive or Pulmonary Disease, Chronic Obstructive or chronic obstructive pulmonary disease*) or (COPD or Pulmonary Disease, Chronic Obstructive) or (asthma or Asthma) or (Nervous System Diseases or chronic neurologic condition*) or (Autoimmune Diseases or autoimmune disease*) or (Liver Diseases or chronic liver disease*) or (Liver Diseases or liver disease*) or (cancer or Neoplasms)).ti,ab,kw. | 3652309 |
| 66 | 31 and 63 and 64 and 65  | 1935    |
| 67 | limit 66 to ((danish or english or norwegian or swedish) and yr="2014 - 2019")   | 846     |



**PICO 3 primær (Pregnant)**

**Clinical trials.gov** (090919)

11 Studies found for: **vaccine, pregnancy** | **Completed Studies** | **Studies With Results** | **Influenza**

Applied Filters:  **Completed**  **With Results**

Terms and Synonyms Searched:

| Terms                     | Search Results* | Entire Database** |
|---------------------------|-----------------|-------------------|
| Synonyms                  |                 |                   |
| <b>vaccine, pregnancy</b> | --              | 0 studies         |
| <b>pregnancy</b>          | 11 studies      | 10,724 studies    |
| Gestation                 | 3 studies       | 1,813 studies     |
| <b>vaccine</b>            | 11 studies      | 8,769 studies     |
| Vaccination               | 11 studies      | 5,365 studies     |
| Immunization              | 3 studies       | 1,861 studies     |
| inoculations              | --              | 203 studies       |
| VACCIN                    | --              | 33 studies        |
| <b>Influenza</b>          | 11 studies      | 2,222 studies     |
| Flu                       | 1 studies       | 378 studies       |
| Agriflu                   | --              | 1 studies         |
| Fluarix                   | --              | 47 studies        |
| Flucelvax                 | --              | 3 studies         |
| FluLaval                  | --              | 4 studies         |
| flumist                   | --              | 44 studies        |
| flus                      | --              | 1 studies         |



| Terms     | Search Results* | Entire Database** |
|-----------|-----------------|-------------------|
| Synonyms  |                 |                   |
| flushield | --              | 1 studies         |
| Fluviral  | --              | 15 studies        |
| fluvirin  | --              | 4 studies         |
| Fluzone   | --              | 74 studies        |
| Grippe    | --              | 77 studies        |

**Medline** (090919)

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 06, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 16      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 98      |
| 6  | trivalent influenza vaccine*.mp.   | 636     |
| 7  | TIV.mp.  | 764     |
| 8  | fluad*.mp.   | 71      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2       |



|    |   |        |
|----|---|--------|
| 11 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2      |
| 12 | QIV*.mp.  | 158    |
| 13 | quadrivalent influenza vaccine*.mp.   | 158    |
| 14 | fluenz tetra*.mp.   | 2      |
| 15 | LAIV.mp.  | 514    |
| 16 | live-attenuated influenza vaccine*.mp.  | 693    |
| 17 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24557  |
| 18 | fluarix quadrivalent*.mp.   | 4      |
| 19 | flublok quadrivalent*.mp.   | 2      |
| 20 | flulaval quadrivalent*.mp.  | 1      |
| 21 | fluzone quadrivalent*.mp.   | 5      |
| 22 | fluzone*.mp.  | 78     |
| 23 | flucelvax*.mp.  | 7      |
| 24 | flumist.mp.   | 96     |
| 25 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24557  |
| 26 | quadrivalent inactivated vaccine*.mp.   | 9      |
| 27 | aTIV.mp.  | 27     |
| 28 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11     |
| 29 | Vaccines, Inactivated/  | 5168   |
| 30 | high dose trivalent inactivated influenza vaccine*.mp.  | 14     |
| 31 | HD TIV.mp.  | 2      |
| 32 | vaccine*.mp.  | 297719 |
| 33 | influenza*.mp.  | 127596 |
| 34 | 32 and 33   | 35746  |



|    |  |         |
|----|--|---------|
| 35 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24557   |
| 36 | vaccination*.mp. or vaccination/   | 163413  |
| 37 | immunization*.mp. or immunization/   | 151485  |
| 38 | influenza vaccination*.mp. or influenza vaccination/   | 8201    |
| 39 | influenza*.mp. or influenza/   | 127596  |
| 40 | flu*.mp.   | 1952048 |
| 41 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 4450    |
| 42 | 36 or 37 or 38 or 39 or 40 or 41   | 2292888 |
| 43 | Pregnancy Complications, Infectious/ or pregnant*.mp. or Pregnant Women/ or Pregnancy/ or Pregnancy Complications/   | 888047  |
| 44 | Pregnancy/ or pregnancy.mp.  | 932247  |
| 45 | Pregnancy Complications, Cardiovascular/ or Pregnancy, High-Risk/ or pregnancy high risk*.mp.  | 20405   |
| 46 | 43 or 44 or 45   | 954206  |
| 47 | or/1-31  | 28508   |
| 48 | 34 or 47   | 39599   |
| 49 | 42 and 46 and 48   | 1723    |
| 50 | (((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.  | 628259  |
| 51 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1534906 |
| 52 | Randomized Controlled Trials as Topic/ or RCT*.mp.   | 153198  |
| 53 | randomized controlled trial*.mp.   | 661979  |



|    |  |         |
|----|--|---------|
| 54 | 50 or 51 or 52 or 53   | 2237270 |
| 55 | 49 and 54  | 378     |
| 56 | limit 55 to (yr="2014 - 2019" and (danish or english or norwegian or swedish)) | 227     |

**Embase** (090919)Database(s): **Embase** 1996 to 2019 Week 36

## Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 144     |
| 2  | agrippal*.mp.   | 129     |
| 3  | influvac*.mp.   | 277     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 474     |
| 6  | trivalent influenza vaccine*.mp.  | 690     |
| 7  | TIV.mp.   | 1011    |
| 8  | fluad*.mp.  | 323     |
| 9  | fluarix tetra*.mp.  | 17      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 3       |
| 11 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 12 | QIV*.mp.  | 244     |
| 13 | quadrivalent influenza vaccine*.mp.   | 211     |
| 14 | fluenz tetra*.mp.   | 20      |
| 15 | LAIV.mp.  | 600     |



|    |   |         |
|----|---|---------|
| 16 | live-attenuated influenza vaccine*.mp.                  | 777     |
| 17 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32983   |
| 18 | fluarix quadrivalent*.mp.                               | 18      |
| 19 | flublok quadrivalent*.mp.                               | 5       |
| 20 | flulaval quadrivalent*.mp.                              | 16      |
| 21 | fluzone quadrivalent*.mp.                               | 14      |
| 22 | fluzone*.mp.  | 627     |
| 23 | flucelvax*.mp.  | 78      |
| 24 | flumist.mp.   | 668     |
| 25 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32983   |
| 26 | quadrivalent inactivated vaccine*.mp.                   | 12      |
| 27 | aTIV.mp.  | 29      |
| 28 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 10      |
| 29 | Vaccines, Inactivated/                                  | 4213    |
| 30 | high dose trivalent inactivated influenza vaccine*.mp.  | 16      |
| 31 | HD TIV.mp.  | 4       |
| 32 | vaccine*.mp.  | 305948  |
| 33 | influenza*.mp.  | 137915  |
| 34 | 32 and 33   | 49216   |
| 35 | Influenza Vaccines/ or influenza vaccine*.mp.           | 32983   |
| 36 | vaccination*.mp. or vaccination/                        | 177346  |
| 37 | immunization*.mp. or immunization/                      | 123058  |
| 38 | influenza vaccination*.mp. or influenza vaccination/    | 18218   |
| 39 | influenza*.mp. or influenza/                            | 137915  |
| 40 | flu*.mp.  | 2082470 |



|    |   |         |
|----|---|---------|
| 41 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 7800    |
| 42 | 36 or 37 or 38 or 39 or 40 or 41  | 2391931 |
| 43 | Pregnancy Complications, Infectious/ or pregnant*.mp. or Pregnant Women/ or Pregnancy/ or Pregnancy Complications/  | 445880  |
| 44 | Pregnancy/ or pregnancy.mp.   | 566223  |
| 45 | Pregnancy Complications, Cardiovascular/ or Pregnancy, High-Risk/ or pregnancy high risk*.mp.   | 34444   |
| 46 | 43 or 44 or 45  | 612080  |
| 47 | or/1-31   | 36439   |
| 48 | 34 or 47  | 52415   |
| 49 | 42 and 46 and 48  | 2572    |
| 50 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.   | 784465  |
| 51 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw. | 2046486 |
| 52 | randomized controlled trial/ or randomized controlled trial*.mp.  | 728717  |
| 53 | 50 or 51 or 52  | 2849875 |
| 54 | 49 and 53   | 555     |
| 55 | limit 54 to ((danish or english or norwegian or swedish) and yr="2014 - 2019")  | 331     |

**PICO 4 Primær (aged 3-valent)****Medline** (180919)Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 16, 2019

Search Strategy:





| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 16      |
| 2  | agrippal*.mp.   | 27      |
| 3  | influvac*.mp.   | 31      |
| 4  | preflucel*.mp.  | 1       |
| 5  | vaxigrip*.mp.   | 98      |
| 6  | trivalent influenza vaccine*.mp.  | 637     |
| 7  | TIV.mp.   | 766     |
| 8  | aTIV*.mp.   | 1682    |
| 9  | trivalent*.mp.  | 8631    |
| 10 | flud*.mp.   | 71      |
| 11 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24592   |
| 12 | vaccination*.mp. or vaccination/  | 163657  |
| 13 | immunization*.mp. or immunization/  | 151580  |
| 14 | influenza vaccination*.mp. or influenza vaccination/  | 8220    |
| 15 | influenza*.mp. or influenza/  | 127745  |
| 16 | flu*.mp.  | 1953895 |
| 17 | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 4464    |
| 18 | 12 or 13 or 14 or 15 or 16 or 17  | 2295077 |
| 19 | aged*.mp. or "Aged, 80 and over"/ or Aged/  | 5145356 |
| 20 | elderly.mp.   | 244189  |
| 21 | 19 or 20  | 5193426 |



|    |  |         |
|----|--|---------|
| 22 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.   | 656967  |
| 23 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1538314 |
| 24 | randomized controlled trial*.mp.   | 662678  |
| 25 | randomized controlled trial/ or RCT*.mp.   | 527983  |
| 26 | 22 or 23 or 24 or 25   | 2255749 |
| 27 | or/1-11  | 33288   |
| 28 | 18 and 21 and 27   | 8563    |
| 29 | 26 and 28  | 2280    |
| 30 | limit 29 to ((danish or english or norwegian or swedish) and yr="2016 - 2019")   | 511     |

**Embase (180919)**Database(s): **Embase** 1996 to 2019 Week 37

## Search Strategy:

| # | Searches                         | Results |
|---|----------------------------------|---------|
| 1 | afluria*.mp.                     | 144     |
| 2 | agrippal*.mp.                    | 129     |
| 3 | influvac*.mp.                    | 277     |
| 4 | preflucel*.mp.                   | 23      |
| 5 | vaxigrip*.mp.                    | 474     |
| 6 | trivalent influenza vaccine*.mp. | 692     |
| 7 | TIV.mp.                          | 1015    |
| 8 | aTIV*.mp.                        | 3344    |
| 9 | trivalent*.mp.                   | 7290    |



|    |   |         |
|----|---|---------|
| 10 | fluad*.mp.  | 323     |
| 11 | Influenza Vaccines/ or influenza vaccine*.mp.   | 33048   |
| 12 | vaccination*.mp. or vaccination/  | 177725  |
| 13 | immunization*.mp. or immunization/  | 123250  |
| 14 | influenza vaccination*.mp. or influenza vaccination/  | 18269   |
| 15 | influenza*.mp. or influenza/  | 138240  |
| 16 | flu*.mp.  | 2086267 |
| 17 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 7833    |
| 18 | 12 or 13 or 14 or 15 or 16 or 17  | 2396346 |
| 19 | aged*.mp. or "Aged, 80 and over"/ or Aged/  | 3375186 |
| 20 | elderly.mp.   | 448497  |
| 21 | 19 or 20  | 3439370 |
| 22 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.   | 825221  |
| 23 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw. | 2051400 |
| 24 | randomized controlled trial*.mp.  | 731302  |
| 25 | randomized controlled trial/ or RCT*.mp.  | 576464  |
| 26 | 22 or 23 or 24 or 25  | 2879978 |
| 27 | or/1-11   | 41997   |
| 28 | 18 and 21 and 27  | 7975    |
| 29 | 26 and 28   | 2205    |
| 30 | limit 29 to ((danish or english or norwegian or swedish) and yr="2016 - 2019")  | 656     |



**PICO 5 primær (aged high dose)**

**Medline** (190919)

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 17, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 16      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 98      |
| 6  | trivalent influenza vaccine*.mp.   | 637     |
| 7  | TIV.mp.  | 766     |
| 8  | aTIV*.mp.  | 1682    |
| 9  | fluad*.mp.   | 71      |
| 10 | fluarix tetra*.mp.   | 3       |
| 11 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2       |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]  | 2       |
| 13 | quadrivalent influenza vaccine*.mp.  | 158     |
| 14 | fluenz tetra*.mp.  | 2       |
| 15 | fluarix quadrivalent*.mp.  | 4       |



|    |   |         |
|----|---|---------|
| 16 | flublok quadrivalent*.mp.                               | 2       |
| 17 | flulaval quadrivalent*.mp.                              | 1       |
| 18 | fluzone*.mp.  | 78      |
| 19 | flucelvax*.mp.  | 7       |
| 20 | flumist*.mp.  | 96      |
| 21 | quadrivalent inactivated vaccine*.mp.                   | 10      |
| 22 | Vaccines, Inactivated/                                  | 5178    |
| 23 | adjuvanted trivalent inactivated influenza vaccine*.mp. | 11      |
| 24 | adjuvanted trivalent vaccine*.mp.                       | 7       |
| 25 | high dose trivalent inactivated influenza vaccine*.mp.  | 14      |
| 26 | high-dose*.mp.  | 129935  |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.           | 24591   |
| 28 | vaccination*.mp. or Vaccination/                        | 163662  |
| 29 | Immunization/ or immunization*.mp.                      | 151589  |
| 30 | influenza vaccination*.mp.                              | 8219    |
| 31 | vaccination*.mp. or Vaccination/                        | 163662  |
| 32 | flu*.mp.  | 1953849 |
| 33 | seasonal influenza*.mp.                                 | 4466    |
| 34 | seasonal flu*.mp.                                       | 2070    |
| 35 | "Aged, 80 and over"/ or Aged/ or aged*.mp.              | 5147181 |
| 36 | elderly.mp.   | 244250  |
| 37 | 28 or 29 or 30 or 31 or 32 or 33 or 34                  | 2209930 |
| 38 | 35 or 36  | 5195243 |
| 39 | Randomized Controlled Trials as Topic/ or RCT*.mp.      | 153325  |
| 40 | randomized controlled trial*.mp.                        | 662908  |



|    |  |         |
|----|--|---------|
| 41 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.   | 629380  |
| 42 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1538820 |
| 43 | (cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent*).ti,ab,kw,kf.   | 2742329 |
| 44 | 39 or 40 or 41 or 42 or 43   | 3567722 |
| 45 | or/1-27  | 159750  |
| 46 | 37 and 38 and 45   | 11816   |
| 47 | 44 and 46  | 4658    |
| 48 | limit 47 to (yr="2018 - 2019" and (danish or english or norwegian or swedish))   | 328     |

**Embase (190919)**Database(s): **Embase** 1996 to 2019 Week 37

Search Strategy:

| # | Searches                         | Results |
|---|----------------------------------|---------|
| 1 | afluria*.mp.                     | 144     |
| 2 | agrippal*.mp.                    | 129     |
| 3 | influvac*.mp.                    | 277     |
| 4 | preflucel*.mp.                   | 23      |
| 5 | vaxigrip*.mp.                    | 474     |
| 6 | trivalent influenza vaccine*.mp. | 692     |
| 7 | TIV.mp.                          | 1015    |
| 8 | aTIV*.mp.                        | 3344    |



|    |   |        |
|----|---|--------|
| 9  | fluad*.mp.  | 323    |
| 10 | fluarix tetra*.mp.  | 17     |
| 11 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 3      |
| 12 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4      |
| 13 | quadrivalent influenza vaccine*.mp.   | 212    |
| 14 | fluenz tetra*.mp.   | 20     |
| 15 | fluarix quadrivalent*.mp.   | 18     |
| 16 | flublok quadrivalent*.mp.   | 5      |
| 17 | flulaval quadrivalent*.mp.  | 16     |
| 18 | fluzone*.mp.  | 628    |
| 19 | flucelvax*.mp.  | 78     |
| 20 | flumist*.mp.  | 667    |
| 21 | quadrivalent inactivated vaccine*.mp.   | 13     |
| 22 | Vaccines, Inactivated/  | 4218   |
| 23 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 10     |
| 24 | adjuvanted trivalent vaccine*.mp.   | 5      |
| 25 | high dose trivalent inactivated influenza vaccine*.mp.  | 16     |
| 26 | high-dose*.mp.  | 150499 |
| 27 | Influenza Vaccines/ or influenza vaccine*.mp.   | 33048  |
| 28 | vaccination*.mp. or Vaccination/  | 177725 |
| 29 | Immunization/ or immunization*.mp.  | 123250 |
| 30 | influenza vaccination*.mp.  | 18269  |
| 31 | vaccination*.mp. or Vaccination/  | 177725 |



|    |   |         |
|----|---|---------|
| 32 | flu*.mp.  | 2086267 |
| 33 | seasonal influenza*.mp.   | 7833    |
| 34 | seasonal flu*.mp.   | 1986    |
| 35 | "Aged, 80 and over"/ or Aged/ or aged*.mp.  | 3375186 |
| 36 | elderly.mp.   | 448497  |
| 37 | 28 or 29 or 30 or 31 or 32 or 33 or 34  | 2321840 |
| 38 | 35 or 36  | 3439370 |
| 39 | Randomized Controlled Trials as Topic/ or RCT*.mp.  | 156322  |
| 40 | randomized controlled trial*.mp.  | 731302  |
| 41 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj3 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.   | 786836  |
| 42 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw. | 2051400 |
| 43 | (cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent*).ti,ab,kw.   | 3762117 |
| 44 | 39 or 40 or 41 or 42 or 43  | 4643520 |
| 45 | or/1-27   | 189739  |
| 46 | 37 and 38 and 45  | 11931   |
| 47 | 44 and 46   | 5099    |
| 48 | limit 47 to ((danish or english or norwegian or swedish) and yr="2018 - 2019")  | 642     |



**PICO 6 primær (child) og PICO 7 primær (infant)****Clinical trials, PICO 6 (Child) (240919)**69 Studies found for: **vaccination, infant | Completed Studies | Studies With Results | Influenza Vaccine | Child**Applied Filters:  **Completed**  **With Results**  **Child (birth–17)**

Terms and Synonyms Searched:

| Terms                  | Search Results* | Entire Database** |
|------------------------|-----------------|-------------------|
| Synonyms               |                 |                   |
| <b>vaccine, infant</b> | 2 studies       | 3 studies         |
| <b>infant</b>          | 69 studies      | 11,527 studies    |
| babies                 | 7 studies       | 2,880 studies     |
| <b>vaccine</b>         | 69 studies      | 8,808 studies     |
| Vaccination            | 63 studies      | 5,389 studies     |
| Immunization           | 14 studies      | 1,869 studies     |
| inoculations           | --              | 204 studies       |
| VACCIN                 | --              | 33 studies        |
| <b>influenza</b>       | 69 studies      | 2,228 studies     |
| Fluzone                | 5 studies       | 74 studies        |
| Flu                    | 1 studies       | 379 studies       |
| flumist                | 1 studies       | 44 studies        |
| Fluviral               | 1 studies       | 15 studies        |
| Agriflu                | --              | 1 studies         |
| Fluarix                | --              | 47 studies        |
| Flucelvax              | --              | 3 studies         |
| FluLaval               | --              | 4 studies         |
| flus                   | --              | 1 studies         |



| Terms     | Search Results* | Entire Database** |
|-----------|-----------------|-------------------|
| Synonyms  |                 |                   |
| flushield | --              | 1 studies         |
| fluvirin  | --              | 4 studies         |
| Grippe    | --              | 77 studies        |

Clinical trials, PICO 7 child (240919)

214 Studies found for: **vaccination, child** | Completed Studies | Studies With Results | Influenza Vaccine | Child

Applied Filters:  Completed  With Results  Child (birth–17)

Terms and Synonyms Searched:

| Terms                     | Search Results* | Entire Database** |
|---------------------------|-----------------|-------------------|
| Synonyms                  |                 |                   |
| <b>vaccination, child</b> | --              | 2 studies         |
| <b>child</b>              | 214 studies     | 69,941 studies    |
| offsprings                | 38 studies      | 680 studies       |
| kid                       | 2 studies       | 752 studies       |
| progeny                   | --              | 20 studies        |
| <b>vaccination</b>        | 214 studies     | 8,808 studies     |
| Vaccine                   | 212 studies     | 8,107 studies     |
| Immunization              | 37 studies      | 1,869 studies     |
| inoculations              | --              | 204 studies       |
| VACCIN                    | --              | 33 studies        |
| <b>Influenza Vaccine</b>  | 214 studies     | 2,087 studies     |
| Influenza                 | 213 studies     | 2,068 studies     |
| Fluzone                   | 24 studies      | 74 studies        |
| flumist                   | 8 studies       | 44 studies        |
| flu vaccines              | 7 studies       | 93 studies        |



| Terms            | Search Results* | Entire Database** |
|------------------|-----------------|-------------------|
| <b>Synonyms</b>  |                 |                   |
| Fluarix          | 5 studies       | 47 studies        |
| Flu vaccination  | 1 studies       | 14 studies        |
| Agriflu          | 1 studies       | 1 studies         |
| Fluviral         | 1 studies       | 15 studies        |
| fluvirin         | 1 studies       | 4 studies         |
| Flu prevention   | --              | 3 studies         |
| Flu shot         | --              | 7 studies         |
| Flucelvax        | --              | 3 studies         |
| FluLaval         | --              | 4 studies         |
| flushield        | --              | 1 studies         |
| <b>Vaccine</b>   | 204 studies     | 7,100 studies     |
| Vaccination      | 41 studies      | 1,733 studies     |
| Immunization     | 7 studies       | 682 studies       |
| inoculations     | --              | 28 studies        |
| VACCIN           | --              | 8 studies         |
| <b>Influenza</b> | 214 studies     | 2,228 studies     |
| Fluzone          | 24 studies      | 74 studies        |
| Flu              | 17 studies      | 379 studies       |
| flumist          | 8 studies       | 44 studies        |
| Fluarix          | 5 studies       | 47 studies        |
| Agriflu          | 1 studies       | 1 studies         |
| Fluviral         | 1 studies       | 15 studies        |
| fluvirin         | 1 studies       | 4 studies         |
| Flucelvax        | --              | 3 studies         |
| FluLaval         | --              | 4 studies         |
| flus             | --              | 1 studies         |



| Terms     | Search Results* | Entire Database** |
|-----------|-----------------|-------------------|
| Synonyms  |                 |                   |
| flushield | --              | 1 studies         |
| Grippe    | --              | 77 studies        |

-- No studies found

\* Number of studies in the search results containing the term or synonym

\*\* Number of studies in the entire database containing the term or synonym

### Medline (240919)

Database(s): Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R) 1946 to September 22, 2019

Search Strategy:

| #  | Searches   | Results |
|----|--|---------|
| 1  | afluria*.mp.   | 16      |
| 2  | agrippal*.mp.  | 27      |
| 3  | influvac*.mp.  | 31      |
| 4  | preflucel*.mp.   | 1       |
| 5  | vaxigrip*.mp.  | 98      |
| 6  | trivalent influenza vaccine*.mp.   | 638     |
| 7  | TIV.mp.  | 767     |
| 8  | fluad*.mp.   | 71      |
| 9  | fluarix tetra*.mp.   | 3       |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2       |



|    |   |        |
|----|---|--------|
| 11 | vaxigrip tetra*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2      |
| 12 | QIV.mp.   | 104    |
| 13 | quadrivalent influenza vaccine*.mp.   | 159    |
| 14 | fluenz tetra*.mp.   | 2      |
| 15 | LAIV.mp.  | 513    |
| 16 | live-attenuated influenza vaccine*.mp.  | 691    |
| 17 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24604  |
| 18 | fluarix quadrivalent*.mp.   | 4      |
| 19 | flublok quadrivalent*.mp.   | 2      |
| 20 | flulaval quadrivalent*.mp.  | 1      |
| 21 | fluzone quadrivalent*.mp.   | 5      |
| 22 | fluzone*.mp.  | 78     |
| 23 | QIVc*.mp.   | 6      |
| 24 | flucelvax*.mp.  | 7      |
| 25 | flumist.mp.   | 96     |
| 26 | Influenza Vaccines/ or influenza vaccine*.mp.   | 24604  |
| 27 | quadrivalent inactivated vaccine*.mp.   | 10     |
| 28 | aTIV.mp.  | 27     |
| 29 | adjuvanted trivalent inactivated *.mp.  | 0      |
| 30 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 11     |
| 31 | Vaccines, Inactivated/  | 5180   |
| 32 | high dose trivalent inactivated influenza vaccine*.mp.  | 14     |
| 33 | HD TIV.mp.  | 2      |
| 34 | vaccine*.mp.  | 298155 |



|    |  |         |
|----|--|---------|
| 35 | influenza*.mp.   | 127791  |
| 36 | Influenza Vaccines/ or influenza vaccine*.mp.  | 24604   |
| 37 | vaccination*.mp. or vaccination/   | 163693  |
| 38 | immunization*.mp. or immunization/   | 151613  |
| 39 | influenza vaccination*.mp. or influenza vaccination/   | 8219    |
| 40 | influenza*.mp. or influenza/   | 127791  |
| 41 | flu*.mp.   | 1954370 |
| 42 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw,kf.   | 1775486 |
| 43 | or/1-36  | 390428  |
| 44 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.   | 657268  |
| 45 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf. | 1539297 |
| 46 | Randomized Controlled Trials as Topic/ or RCT*.mp.   | 153450  |
| 47 | randomized controlled trial*.mp.   | 663236  |
| 48 | 44 or 45 or 46 or 47   | 2257116 |
| 49 | Infant/ or infant*.mp. or Infant Health/ or Infant, Newborn/   | 1228360 |
| 50 | (child* or Child Health or Child or children* or (Child, Preschool or preschool child*) or (Adolescent or adolescent*)).ti,ab,kw,kf.   | 1502516 |
| 51 | 42 and 43 and 48 and 49  | 6664    |
| 52 | limit 51 to (yr="2017 - 2019" and (danish or english or norwegian or swedish))   | 960     |
| 53 | 42 and 43 and 48 and 50  | 7594    |
| 54 | limit 53 to (yr="2017 - 2019" and (danish or english or norwegian or swedish))   | 1358    |

**Embase (230919)**Database(s): **Embase** 1996 to 2019 Week 38

Search Strategy:

| #  | Searches  | Results |
|----|---|---------|
| 1  | afluria*.mp.  | 144     |
| 2  | agrippal*.mp.   | 129     |
| 3  | influvac*.mp.   | 277     |
| 4  | preflucel*.mp.  | 23      |
| 5  | vaxigrip*.mp.   | 474     |
| 6  | trivalent influenza vaccine*.mp.  | 696     |
| 7  | TIV.mp.   | 1016    |
| 8  | flud*.mp.   | 325     |
| 9  | fluarix tetra*.mp.  | 17      |
| 10 | flucelvax tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 3       |
| 11 | vaxigrip tetra*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]  | 4       |
| 12 | QIV.mp.   | 147     |
| 13 | quadrivalent influenza vaccine*.mp.   | 213     |
| 14 | fluenz tetra*.mp.   | 20      |
| 15 | LAIV.mp.  | 600     |
| 16 | live-attenuated influenza vaccine*.mp.  | 779     |
| 17 | Influenza Vaccines/ or influenza vaccine*.mp.   | 33129   |
| 18 | fluarix quadrivalent*.mp.   | 18      |
| 19 | flublok quadrivalent*.mp.   | 5       |



|    |   |         |
|----|---|---------|
| 20 | flulaval quadrivalent*.mp.  | 16      |
| 21 | fluzone quadrivalent*.mp.   | 15      |
| 22 | fluzone*.mp.  | 629     |
| 23 | QIVc*.mp.   | 10      |
| 24 | flucelvax*.mp.  | 78      |
| 25 | flumist.mp.   | 667     |
| 26 | Influenza Vaccines/ or influenza vaccine*.mp.   | 33129   |
| 27 | quadrivalent inactivated vaccine*.mp.   | 13      |
| 28 | aTIV.mp.  | 29      |
| 29 | adjuvanted trivalent inactivated influenza vaccine*.mp.   | 10      |
| 30 | Vaccines, Inactivated/  | 4227    |
| 31 | high dose trivalent inactivated influenza vaccine*.mp.  | 17      |
| 32 | HD TIV.mp.  | 4       |
| 33 | vaccine*.mp.  | 307050  |
| 34 | influenza*.mp.  | 138563  |
| 35 | Influenza Vaccines/ or influenza vaccine*.mp.   | 33129   |
| 36 | vaccination*.mp. or vaccination/  | 178099  |
| 37 | immunization*.mp. or immunization/  | 123416  |
| 38 | influenza vaccination*.mp. or influenza vaccination/  | 18310   |
| 39 | influenza*.mp. or influenza/  | 138563  |
| 40 | flu*.mp.  | 2090257 |
| 41 | (vaccination* or vaccination or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw. | 1706897 |
| 42 | or/1-36   | 434599  |
| 43 | ((((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.                                 | 827580  |





|    |   |         |
|----|---|---------|
| 44 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw. | 2057993 |
| 45 | Randomized Controlled Trials as Topic/ or RCT*.mp.  | 157063  |
| 46 | randomized controlled trial*.mp.  | 733642  |
| 47 | 43 or 44 or 45 or 46  | 2888837 |
| 48 | (Infant or infant* or Infant Health or Infant, Newborn).ti,ab,kw.   | 331387  |
| 49 | (child* or Child or (Child, Preschool or preschool child*) or (Adolescent or adolescent*)).ti,ab,kw.  | 1468774 |
| 50 | 41 and 42 and 47 and 48   | 3430    |
| 51 | limit 50 to ((danish or english or norwegian or swedish) and yr="2017 - 2019")  | 741     |
| 52 | 41 and 42 and 47 and 49   | 10064   |
| 53 | limit 52 to ((danish or english or norwegian or swedish) and yr="2017 - 2019")  | 2182    |

**PICO 8 primær (personale)****Clinical trials (300919)**

80 Studies found for: **health personnel | Completed Studies | Studies With Results | Influenza vaccination**

Also searched for **Investigator, Medical Personnel, Vaccine** and more. [See Search Details](#)

Applied Filters:  **Completed**  **With Results**

**Terms and Synonyms Searched:**

| Terms                   | Search Results* | Entire Database** |
|-------------------------|-----------------|-------------------|
| Synonyms                |                 |                   |
| <b>health personnel</b> | 59 studies      | 4,118 studies     |
| Medical Personnel       | 42 studies      | 154 studies       |
| Health Care Provider    | 12 studies      | 1,842 studies     |



| Terms                        | Search Results* | Entire Database** |
|------------------------------|-----------------|-------------------|
| Synonyms                     |                 |                   |
| healthcare workers           | 7 studies       | 342 studies       |
| health care professionals    | 1 studies       | 1,023 studies     |
| Care personnel               | --              | 64 studies        |
| health care personnel        | --              | 82 studies        |
| health professionals         | --              | 844 studies       |
| <b>personnel</b>             | 80 studies      | 235,422 studies   |
| Investigator                 | 78 studies      | 233,866 studies   |
| Researcher                   | 1 studies       | 7,411 studies     |
| Human Capital                | --              | 18 studies        |
| Human Resources              | --              | 82 studies        |
| manpower                     | --              | 26 studies        |
| <b>health</b>                | 29 studies      | 90,955 studies    |
| Well-being                   | --              | 5,854 studies     |
| Wellness                     | --              | 1,469 studies     |
| <b>Influenza vaccination</b> | 13 studies      | 202 studies       |
| Influenza immunization       | 2 studies       | 29 studies        |
| Flu vaccination              | 1 studies       | 14 studies        |
| Flu prevention               | --              | 3 studies         |
| vaccination influenza        | --              | 1 studies         |
| <b>vaccination</b>           | 82 studies      | 7,105 studies     |
| Vaccine                      | 77 studies      | 6,304 studies     |
| Immunization                 | 4 studies       | 683 studies       |
| inoculations                 | --              | 28 studies        |
| VACCIN                       | --              | 8 studies         |
| <b>Influenza</b>             | 82 studies      | 2,229 studies     |
| Flu                          | 9 studies       | 379 studies       |



| Terms     | Search Results* | Entire Database** |
|-----------|-----------------|-------------------|
| Synonyms  |                 |                   |
| Fluarix   | 6 studies       | 47 studies        |
| Fluzone   | 3 studies       | 74 studies        |
| flumist   | 1 studies       | 44 studies        |
| Fluviral  | 1 studies       | 15 studies        |
| Agriflu   | --              | 1 studies         |
| Flucelvax | --              | 3 studies         |
| FluLaval  | --              | 4 studies         |
| flus      | --              | 1 studies         |
| flushield | --              | 1 studies         |
| fluvirin  | --              | 4 studies         |
| Grippe    | --              | 77 studies        |

-- No studies found

\* Number of studies in the search results containing the term or synonym

\*\* Number of studies in the entire database containing the term or synonym

### Medline (300919)

Database(s): **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Daily and Versions(R)** 1946 to September 27, 2019

Search Strategy:

| # | Searches   | Results |
|---|--|---------|
| 1 | Influenza Vaccines/ or influenza vaccine*.mp.        | 24628   |
| 2 | vaccination*.mp. or vaccination/                     | 163862  |
| 3 | immunization*.mp. or immunization/                   | 151689  |
| 4 | influenza vaccination*.mp. or influenza vaccination/ | 8227    |
| 5 | influenza*.mp. or influenza/                         | 127888  |
| 6 | flu*.mp.   | 1956060 |



|    |   |         |
|----|---|---------|
| 7  | seasonal influenza*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]   | 4478    |
| 8  | Health Personnel/ or health care worker*.mp. or "Attitude of Health Personnel"/   | 159943  |
| 9  | Primary Health Care/ or health care provider*.mp.   | 105463  |
| 10 | Social Workers/ or social worker*.mp.   | 9593    |
| 11 | nurse*.mp. or Nurse-Patient Relations/  | 346782  |
| 12 | Physician-Nurse Relations/ or physician*.mp. or Physician Assistants/ or Physician-Patient Relations/   | 545945  |
| 13 | General Practitioners/ or practioner*.mp.   | 7632    |
| 14 | Nurse Practitioners/ or nurse practioner*.mp.   | 17241   |
| 15 | 8 or 9 or 10 or 11 or 12 or 13 or 14  | 1022057 |
| 16 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw,kf.  | 658095  |
| 17 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw,kf.  | 1541763 |
| 18 | Randomized Controlled Trials as Topic/ or RCT*.mp.  | 153664  |
| 19 | randomized controlled trial*.mp.  | 663963  |
| 20 | 16 or 17 or 18 or 19  | 2260339 |
| 21 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct or ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spec-tive or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)) or (Randomized Controlled Trials as Topic or RCT*) or randomized controlled trial*).ti,ab,kw,kf. | 2015408 |



|    |   |         |
|----|---|---------|
| 22 | 1 or 2 or 3 or 4 or 5 or 6 or 7   | 2297555 |
| 23 | (Influenza Vaccines or influenza vaccine* or (vaccination* or vaccination) or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw,kf.  | 1777149 |
| 24 | (Health Personnel or health care worker* or "Attitude of Health Personnel" or (Primary Health Care or health care provider*) or (Social Workers or social worker*) or (nurse* or Nurse-Patient Relations) or (Physician-Nurse Relations or physician* or Physician Assistants or Physician-Patient Relations) or (General Practitioners or practioner*) or (Nurse Practitioners or nurse practioner*)).ti,ab,kw,kf. | 702937  |
| 25 | 21 and 23 and 24  | 4935    |
| 26 | limit 25 to (yr="2016 - 2019" and (danish or english or norwegian or swedish))  | 1196    |

**Embase** (300919)Database(s): **Embase** 1996 to 2019 Week 39

## Search Strategy:

| # | Searches   | Results |
|---|--|---------|
| 1 | Influenza Vaccines/ or influenza vaccine*.mp.  | 33189   |
| 2 | vaccination*.mp. or vaccination/   | 178412  |
| 3 | immunization*.mp. or immunization/   | 123574  |
| 4 | influenza vaccination*.mp. or influenza vaccination/   | 18336   |
| 5 | influenza*.mp. or influenza/   | 138814  |
| 6 | flu*.mp.   | 2093357 |
| 7 | seasonal influenza*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 7885    |
| 8 | Health Personnel/ or health care worker*.mp. or "Attitude of Health Personnel"/  | 164303  |
| 9 | Primary Health Care/ or health care provider*.mp.  | 86672   |



|    |  |         |
|----|--|---------|
| 10 | Social Workers/ or social worker*.mp.  | 14698   |
| 11 | nurse*.mp. or Nurse-Patient Relations/   | 312758  |
| 12 | Physician-Nurse Relations/ or physician*.mp. or Physician Assistants/ or Physician-Patient Relations/  | 634647  |
| 13 | General Practitioners/ or practioner*.mp.  | 79377   |
| 14 | Nurse Practitioners/ or nurse practioner*.mp.  | 15268   |
| 15 | 8 or 9 or 10 or 11 or 12 or 13 or 14   | 1098866 |
| 16 | ((random* or cluster-random* or control?ed or crossover or cross-over or blind* or mask*) adj4 (trial*1 or study or studies or analy*)) or rct).ti,ab,kw.  | 829517  |
| 17 | ((Epidemiologic or cohort* or perspective or prospective or longitud* or follow-up or follow up or followup or retro-spective or retrospective or observational or cross-section* or cross section* or multi-cent* or multicent* or evaluation or comparative or intervention or provoca* or validation) adj3 (study or studies or trial*1 or analys*)).ti,ab,kw.  | 2063600 |
| 18 | 1 or 2 or 3 or 4 or 5 or 6 or 7  | 2404528 |
| 19 | (Influenza Vaccines or influenza vaccine* or (vaccination* or vaccination) or (immunization* or immunization) or (influenza vaccination* or influenza vaccination) or (influenza* or influenza) or flu* or seasonal influenza*).ti,ab,kw.  | 1709722 |
| 20 | (Health Personnel or health care worker* or "Attitude of Health Personnel" or (Primary Health Care or health care provider*) or (Social Workers or social worker*) or (nurse* or Nurse-Patient Relations) or (Physician-Nurse Relations or physician* or Physician Assistants or Physician-Patient Relations) or (General Practitioners or practioner*) or (Nurse Practitioners or nurse practioner*)).ti,ab,kw. | 744819  |
| 21 | 16 or 17   | 2645277 |
| 22 | 19 and 20 and 21   | 7659    |
| 23 | limit 22 to ((danish or english or norwegian or swedish) and yr="2016 - 2019")   | 2295    |



## Bilag 2 – Fokuserede spørgsmål (PICO's) og udfaldsmål

**PICO 1: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer, som er fyldt 65 år?**

Population: personer som er fyldt 65 år

Intervention: Cellebaseret 4-valent vaccine

Comparison (sammenligning): Alle inaktiverede vacciner

| Udfaldsmål   | Kritisk/Vigtigt |
|--|-----------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)                                 | Kritisk         |
| Alvorlige hændelser (SAE)  | Kritisk         |
| Alle indlæggelser  | Kritisk         |
| Influenzarelaterede indlæggelser (laboratieverificerede eller registreret ved diagnosekodning) | Vigtig          |
| Influenzalungebetændelse   | Vigtig          |
| Laboratieverificeret influenza   | Vigtig          |
| Antibiotikaforbrug   | Vigtig          |



**PICO 2: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer med kronisk sygdom?**

Population: Personer med kronisk sygdom, som er i øget risiko for alvorligt forløb med influenza

Intervention: Cellebaseret 4-valent vaccine

Comparison (sammenligning): Alle inaktiverede vacciner

| <b>Udfaldsmål</b>  | <b>Kritisk/Vigtig</b> |
|--|-----------------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)                                 | Kritisk               |
| Alvorlige hændelser (SAE)  | Kritisk               |
| Influenzarelaterede indlæggelser (laboratieverificerede eller registreret ved diagnosekodning) | Kritisk               |
| Alle indlæggelser  | Vigtig                |
| Influenzarelateret lungebetændelse   | Vigtig                |
| Laboratieverificeret influenza   | Vigtig                |
| Antibiotikaforbrug   | Vigtig                |





**PICO 3: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt gravide?**

Population: Gravide

Intervention: Cellebaseret 4-valent vaccine

Comparison (sammenligning): Alle inaktiverede vacciner

| Udfaldsmål  | Kritisk/Vigtigt |
|---|-----------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)  | Kritisk         |
| Alvorlige hændelser (SAE) (inkl. hændelser for barnet: spontan abort, præterm fødsel, lav fødselsvægt, føtal væksthæmning, føtal død) | Kritisk         |
| Influenzarelaterede indlæggelser (laboratorieverificerede eller registreret ved diagnosekodning)                                      | Kritisk         |
| Alle indlæggelser   | Vigtig          |
| Influenzarelateret lungebetændelse  | Vigtig          |
| Laboratorieverificeret influenza  | Vigtig          |
| Antibiotikaforbrug  | Vigtig          |



**PICO 4: Hvad er effekten af vaccination med en 3-valent adjuveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer som er fyldt 65 år?**

Population: personer som er fyldt 65 år

Intervention: Adjuveret 3-valent vaccine

Comparison (sammenligning): Inaktiverede influenzavacciner

| <b>Udfaldsmål</b>  | <b>Kritisk/Vigtigt</b> |
|--|------------------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)                                 | Kritisk                |
| Alvorlige hændelser (SAE)  | Kritisk                |
| Alle indlæggelser  | Kritisk                |
| Influenzarelaterede indlæggelser (laboratieverificerede eller registreret ved diagnosekodning) | Vigtig                 |
| Influenzalungebetændelse   | Vigtig                 |
| Laboratieverificeret influenza   | Vigtig                 |
| Antibiotikaforbrug   | Vigtig                 |



**PICO 5: Hvad er effekten af vaccination med en højdosis influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer som er fyldt på 65 år?**

Population: personer som er fyldt 65 år

Intervention: højdosis vaccine

Comparison (sammenligning): andre inaktiverede influenzavacciner

| <b>Udfaldsmål</b>  | <b>Kritisk/Vigtigt</b> |
|--|------------------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)                                   | Kritisk                |
| Alvorlige hændelser (SAE)  | Kritisk                |
| Alle indlæggelser  | Kritisk                |
| Influenzarelaterede indlæggelser (laboratorieverificerede eller registreret ved diagnosekodning) | Vigtig                 |
| Influenzalungebetændelse   | Vigtig                 |
| Laboratorieverificeret influenza   | Vigtig                 |
| Antibiotikaforbrug   | Vigtig                 |



**PICO 6: Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under 2 år?**

Population: Børn under 2 år

Intervention: Ingen vaccine (eller placebo).

| <b>Udfaldsmål</b>  | <b>Kritisk/Vigtigt</b> |
|--|------------------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)   | Kritisk                |
| Alvorlige hændelser (SAE)  | Kritisk                |
| Alle indlæggelser  | Kritisk                |
| Laboratieverificerede influenzaindlæggelser  | Vigtig                 |
| Influenzalungebetændelse   | Vigtig                 |
| Laboratieverificeret influenza   | Vigtig                 |
| Antibiotikaforbrug   | Vigtig                 |
| Reduktion i indlæggelser og dødelighed relateret til andre risikogrupper (indirekte effekt - flokimmunitet). | Vigtig                 |



**PICO 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn mellem 2-6 år?**

Population: børn fra 2 til under 6 år (*Der søges på 0-18 år*)

Intervention: nasal 4-valent levende svækket influenzavaccine

Sammenligning: ingen vaccine.

| Udfaldsmål   | Kritisk/Vigtigt |
|--|-----------------|
| Død (overdødelighed eller verificerede enkeltstående dødsfald)   | Kritisk         |
| Alvorlige hændelser (SAE)  | Kritisk         |
| Alle indlæggelser  | Kritisk         |
| Laborieverificerede influenzaindlæggelser  | Vigtig          |
| Influenzalungebetændelse   | Vigtig          |
| Laborieverificeret influenza   | Vigtig          |
| Antibiotikaforbrug   | Vigtig          |
| Reduktion i indlæggelser og dødelighed relateret til andre risikogrupper (indirekte effekt - flokimmunitet). | Vigtig          |



**PICO 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

Population: sundhedspersonale

Intervention: Influenzavaccine af hvilken som helst type.

Sammenligning: Ingen influenzavaccination

| Udfaldsmål  | Kritisk/Vigtigt |
|---|-----------------|
| Alvorlige hændelser (SAE) hos personale   | Kritisk         |
| Laboratorieverificerede influenzaindlæggelser hos personale   | Kritisk         |
| Reduktion i sygelighed og dødelighed relateret til risikogrupper med kontakt til sundhedspersonale (indirekte effekt) – dødelighed, | Kritisk         |
| Alle indlæggelser hos personale   | Vigtig          |
| Sygefravær hos personale  | Vigtig          |

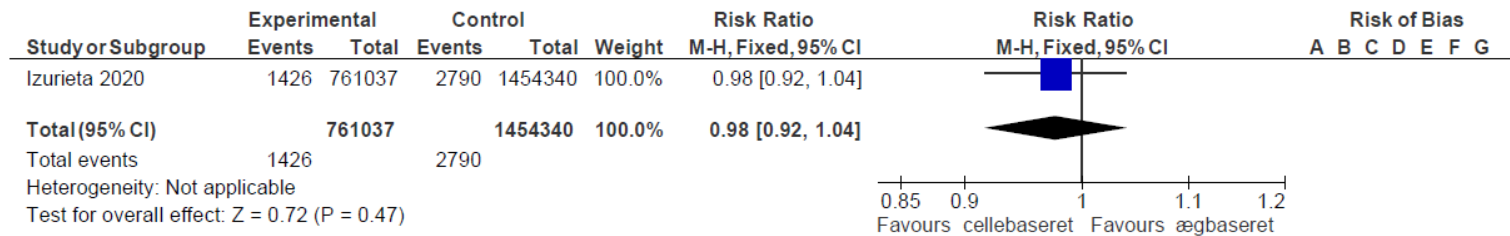


## Bilag 3 – Metaanalyser

### Fokuseret spørgsmål 1:

Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?

### Udfaldsmål: Indlæggelser

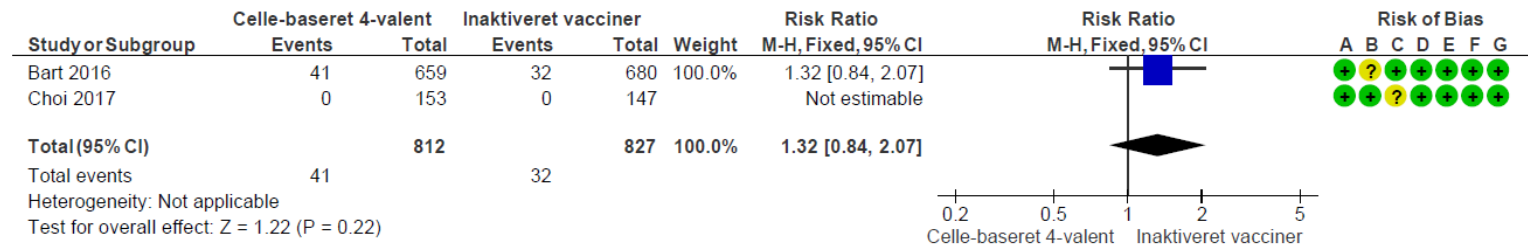


#### Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Udfaldsmål: Alvorlige bivirkninger (SAE)**

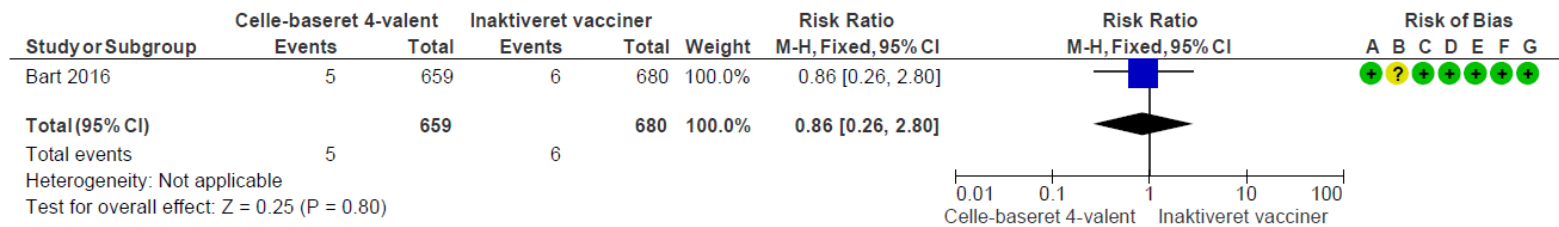


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Udfaldsmål: Død**

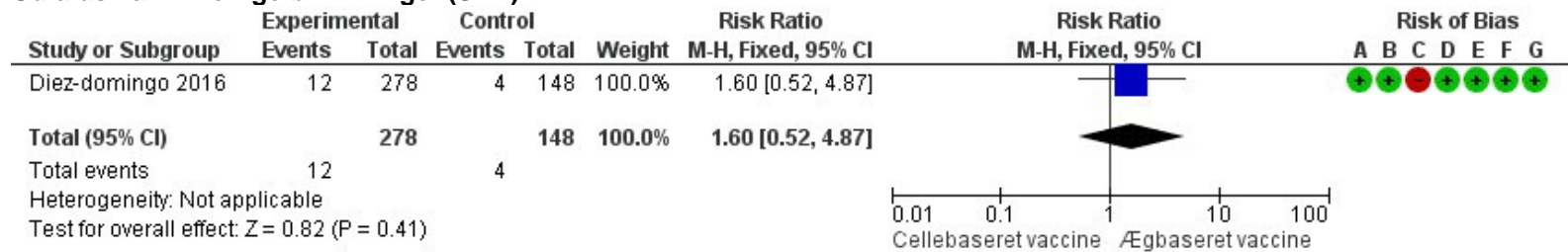


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Udfaldsmål: Alvorlige bivirkninger (SAE)**



Risk of bias legend

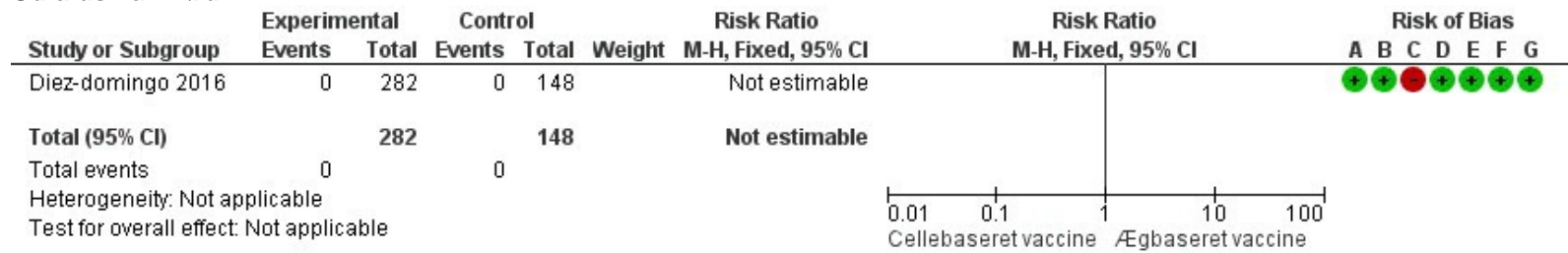
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Fokuseret spørgsmål 2**

Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer med kronisk sygdom?



**Udfaldsmål: Død**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Fokuseret spørgsmål 3:**

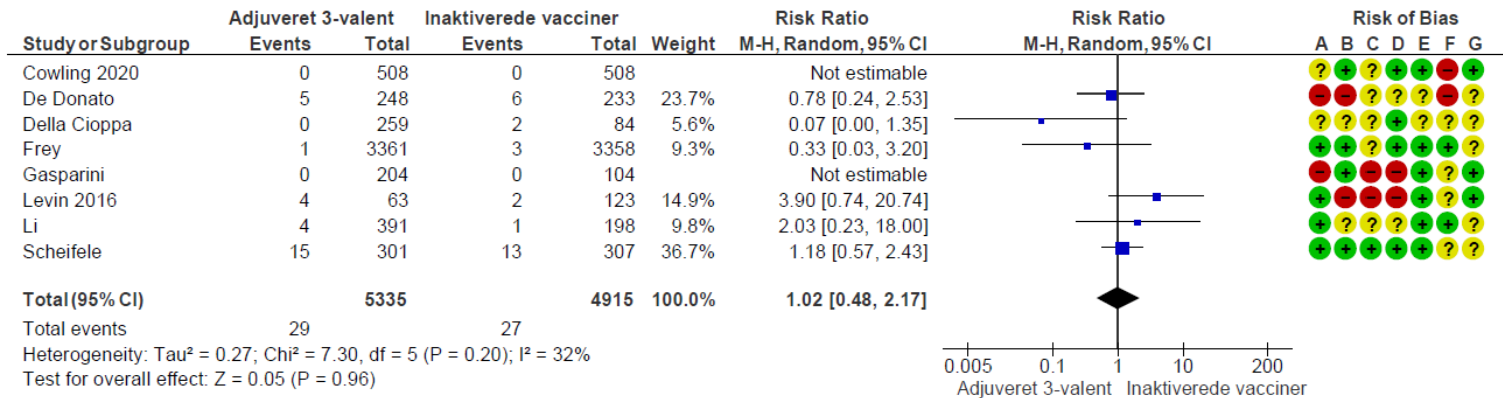
Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt gravide?

Ingen data tilgængelig.

**Fokuseret spørgsmål 4:**

Hvad er effekten af vaccination med en 3-valent adjuveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?

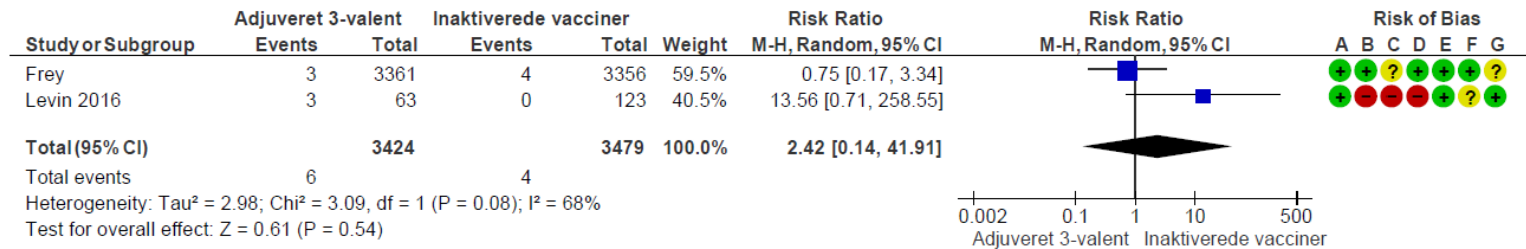
**Alvorlige hændelser (SAE), randomiserede forsøg**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Død, randomiserede forsøg**

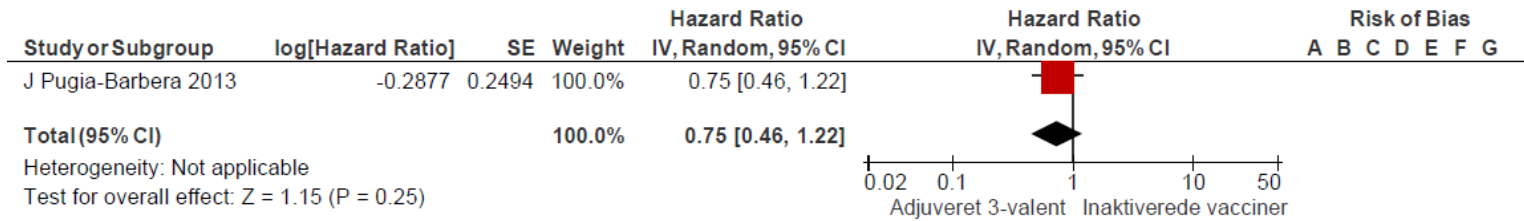


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Laboratorieverificeret influenzaindlæggelser, observationelle studier**

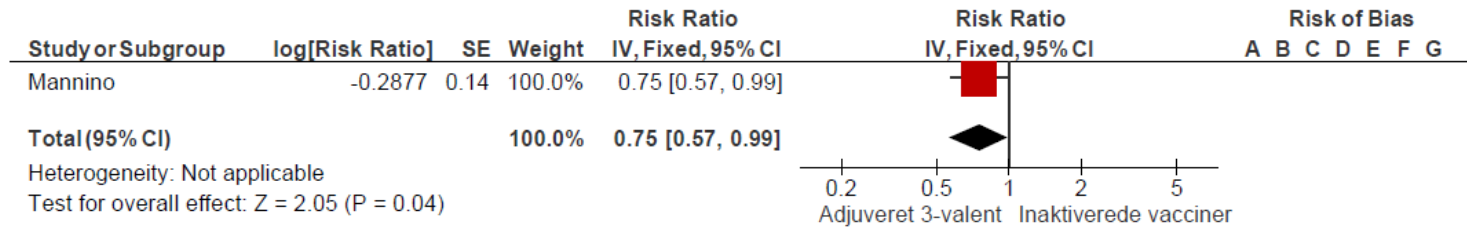


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



Alle indlæggelser, observationelle studier

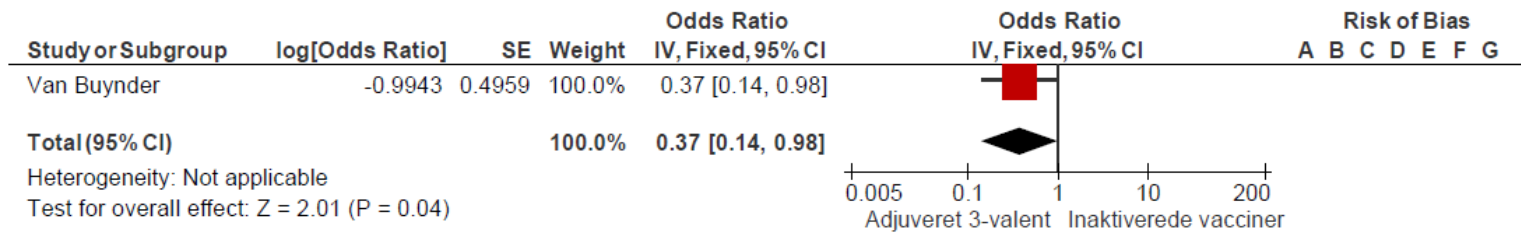


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Laboratorieverificeret influenza, observationelle studier**

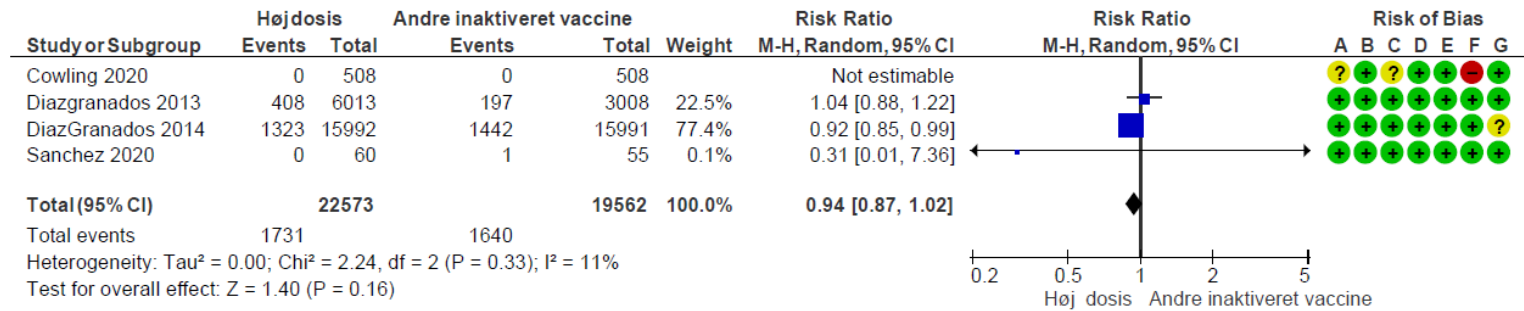


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Personer med minimum en alvorlig bivirkning**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Fokuseret spørgsmål 5:**

Hvad er effekten af vaccination med en high-dose influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?



Død



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



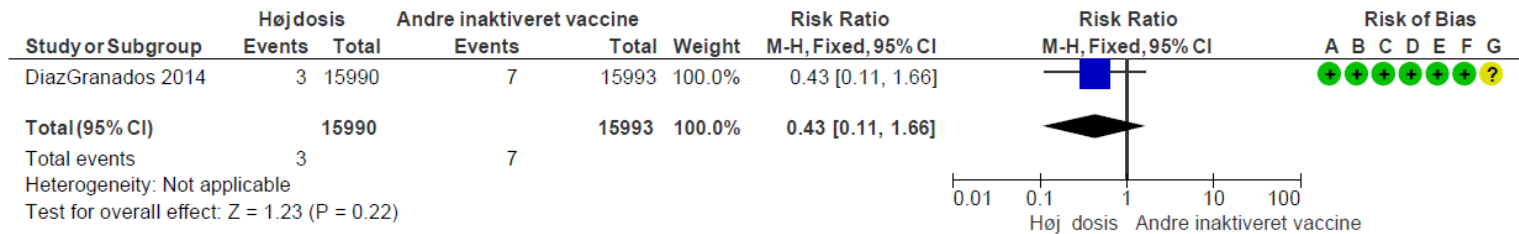
### Laboratorieverificerede influenzaindlæggelser



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

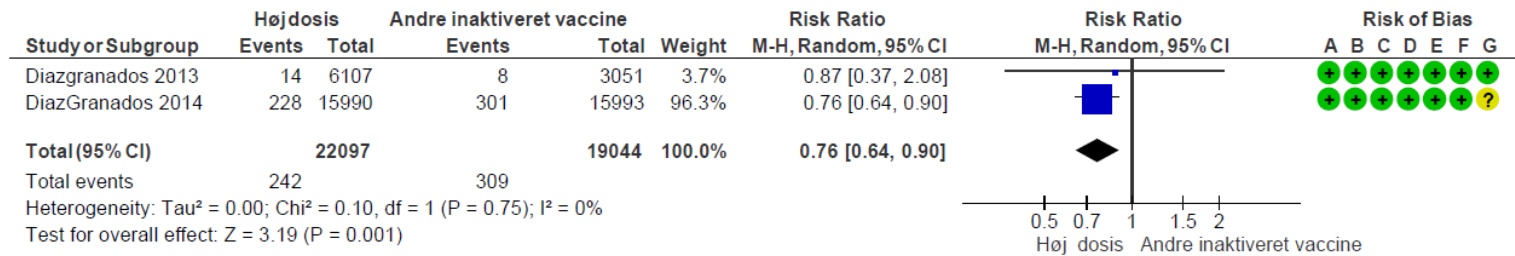
**Laboratorieverificerede pneumoni**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

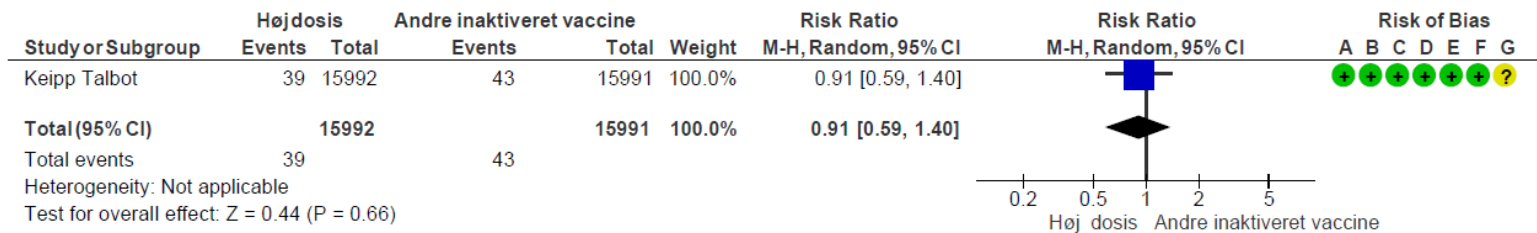
**Laboratorieverificerede influenza**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Gastrointestinale bivirkninger**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



Alle indlæggelser



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



### Indlæggelser pga. pneumoni (ICD koder)



#### Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

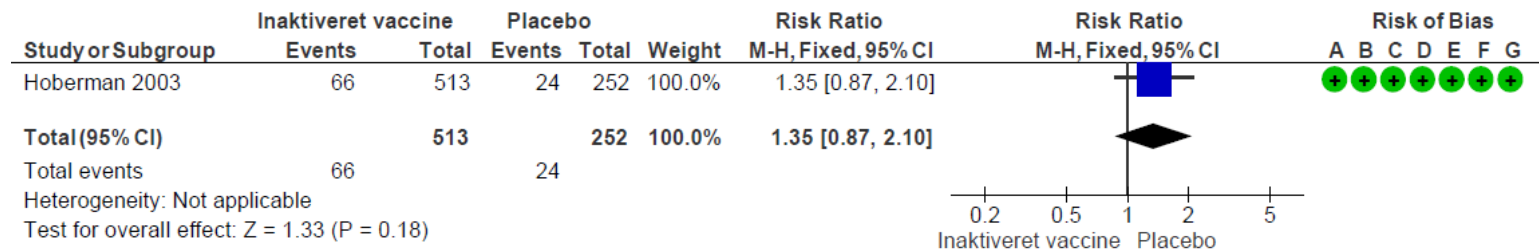
### Fokuseret spørgsmål 6:

Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under to år?





Alle indlæggelser, inaktiveret vaccine vs. placebo

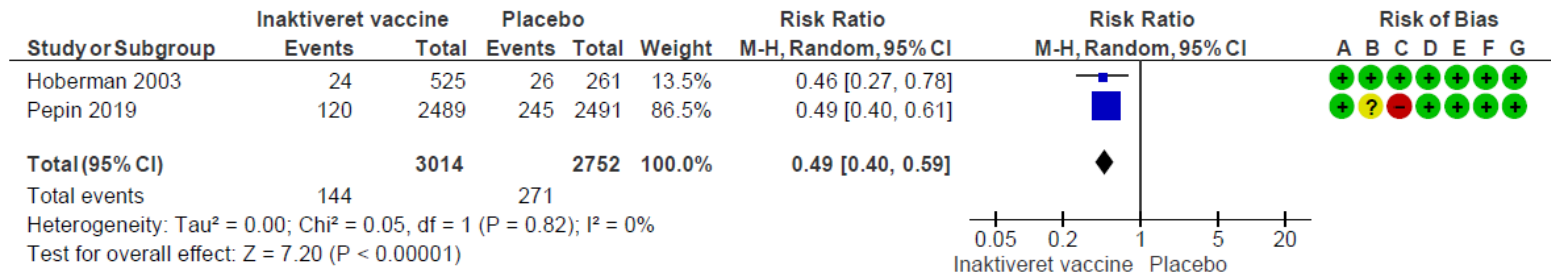


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Laboratorieverificeret influenza, inaktiveret vaccine vs. placebo**

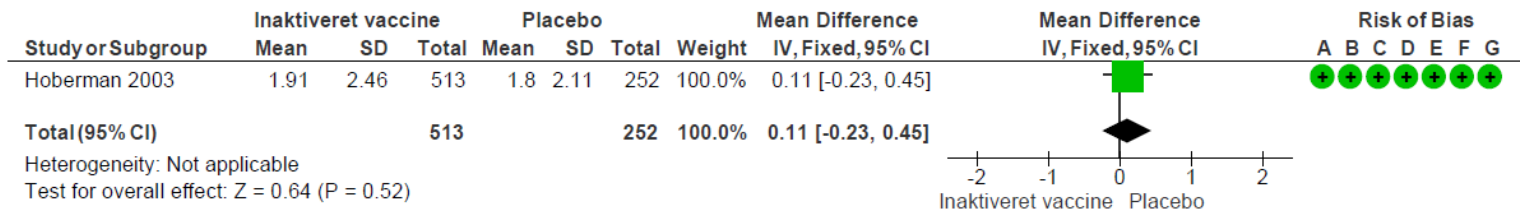


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



### Brug af antibiotika, inaktiveret vaccine vs. placebo

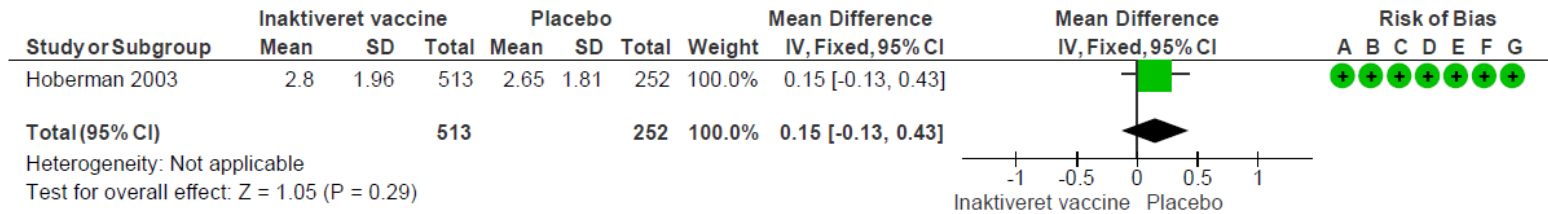


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



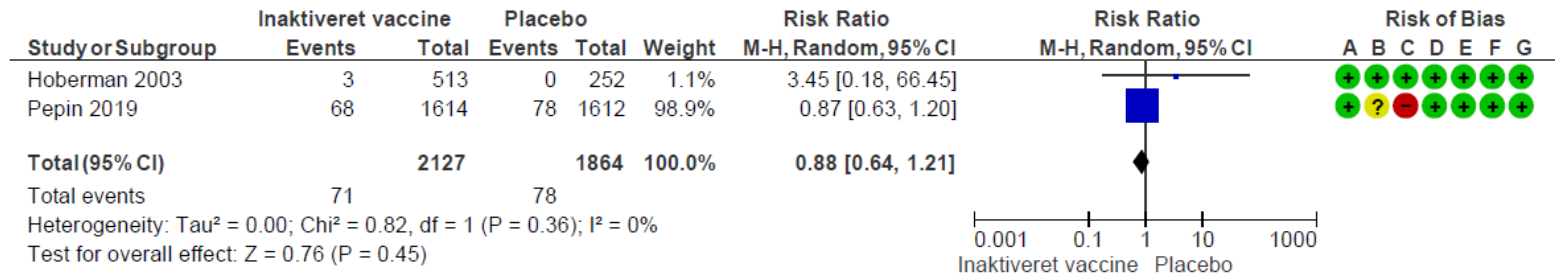
Tilfælde af anden sygdom hos familiemedlem, inaktiveret vaccine vs. placebo



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

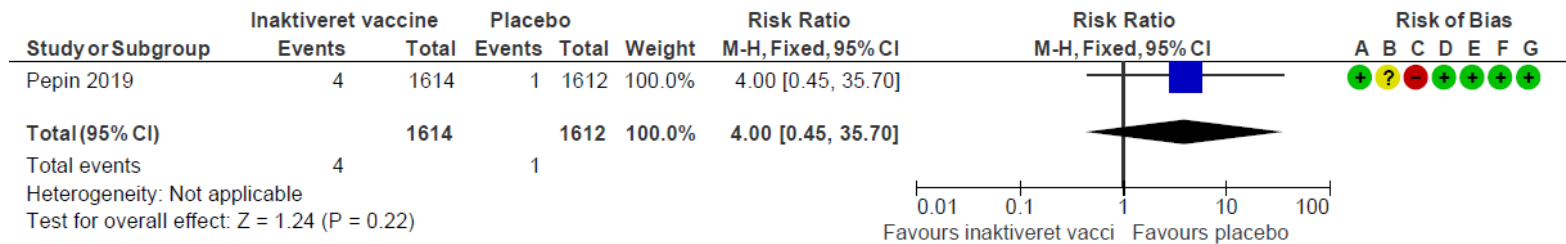
**Alvorlige hændelser (SAE), inaktiveret vaccine vs. placebo**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Død, inaktiveret vaccine vs. Placebo**

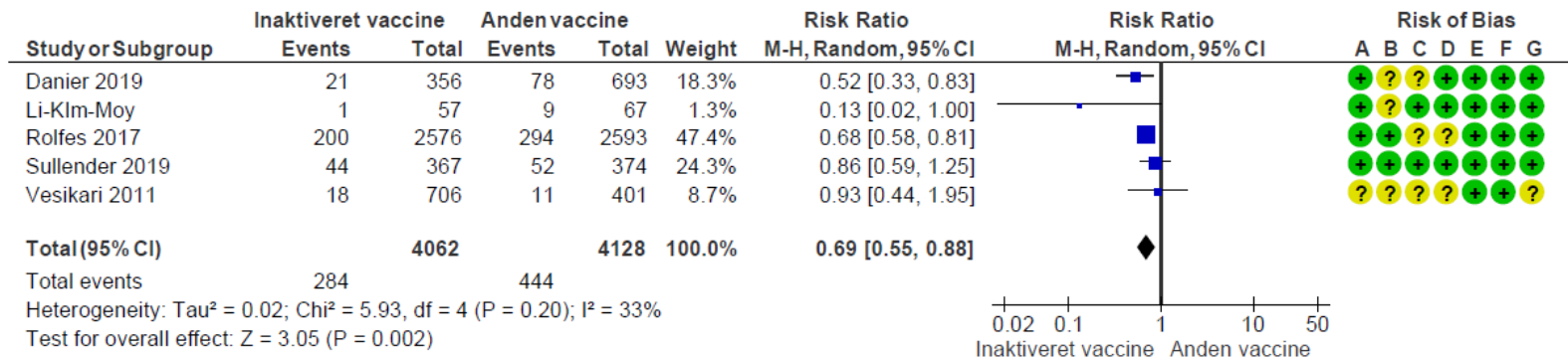


Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



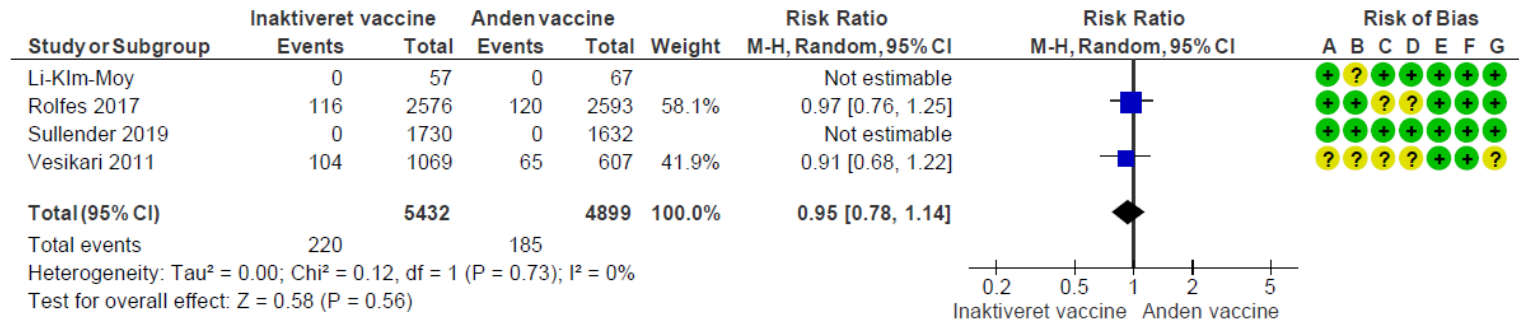
Laboratorieverificeret influenza, inaktiveret vaccine vs. anden vaccine



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

**Alvorlige hændelser (SAE), inaktiveret vaccine vs. anden vaccine**



Risk of bias legend

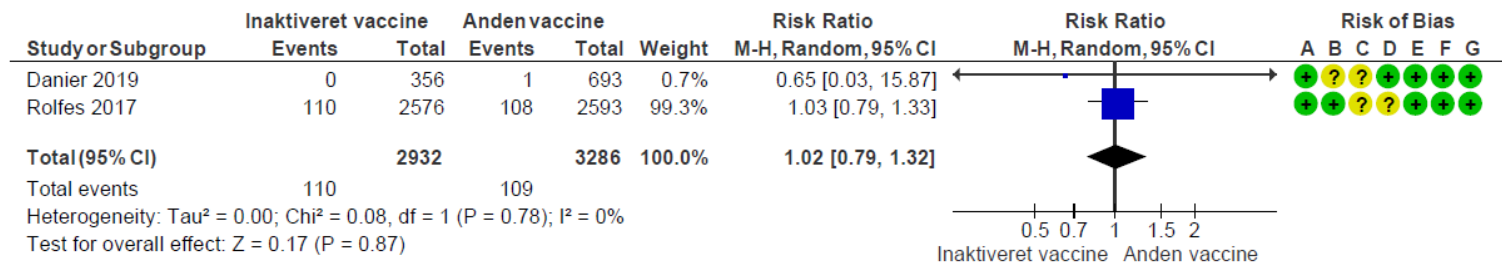
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias





**Fokuseret spørgsmål 6: Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under to år?**

**Udfaldsmål: Alle indlæggelser, inaktiveret vaccine vs. anden vaccine**



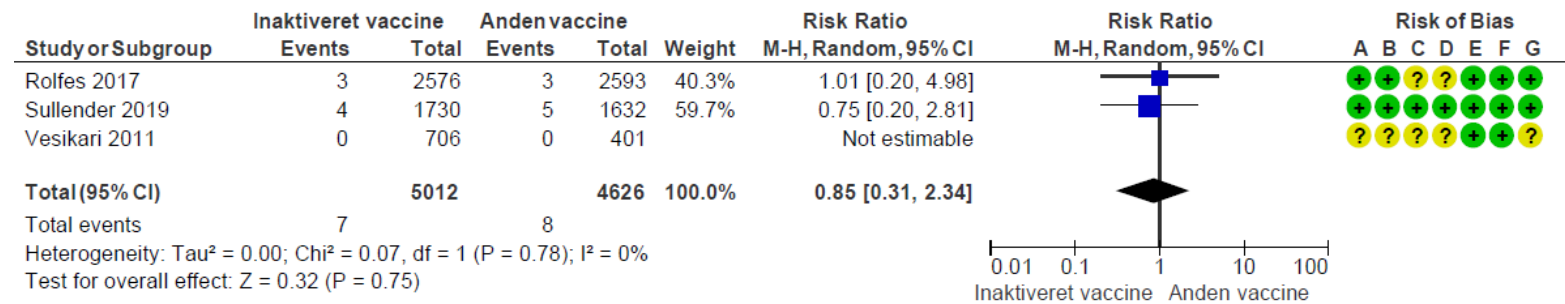
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 6: Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under to år?**

**Udfaldsmål: Død, inaktiveret vaccine vs. anden vaccine**



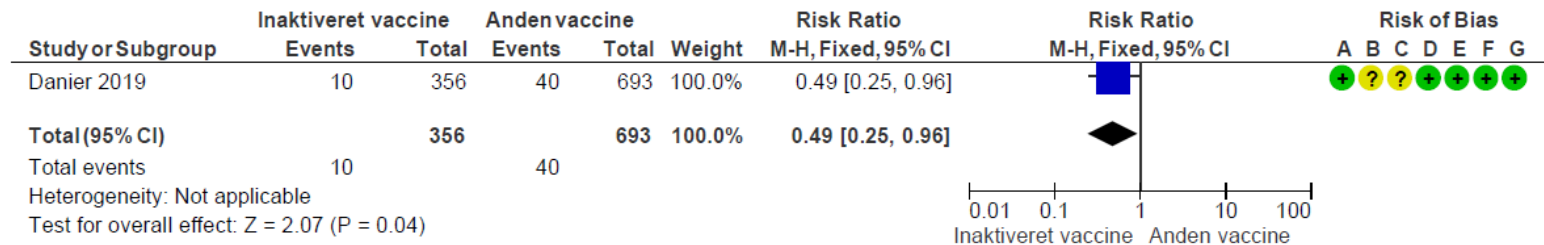
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 6: Hvad er effekten af vaccination med en inaktiveret influenzavaccine til raske børn under to år?**

**Udfaldsmål: Brug af antibiotika, inaktiveret vaccine vs. anden vaccine**



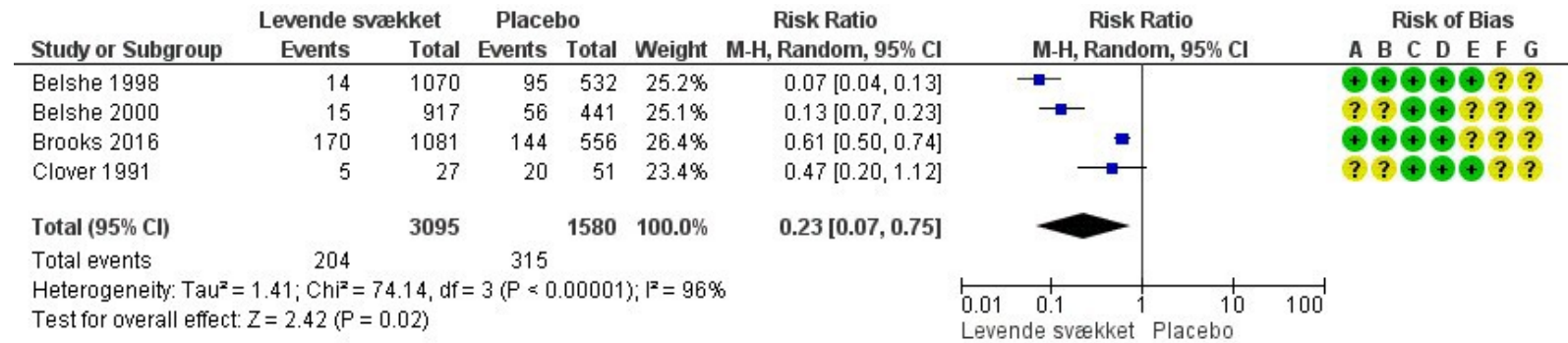
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn mellem to og seks år?**

**Udfaldsmål: Laboratorieverificeret influenza**



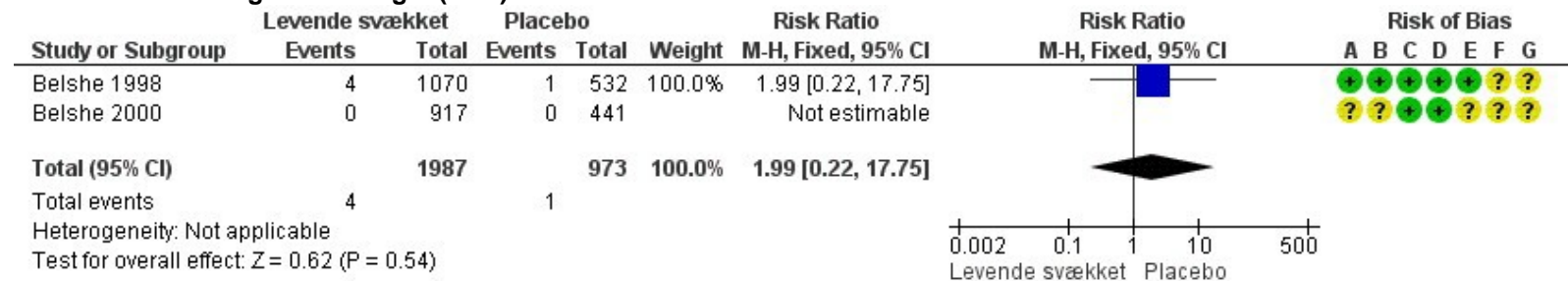
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn mellem to og seks år?**

**Udfaldsmål: Alvorlige bivirkninger (SAE)**



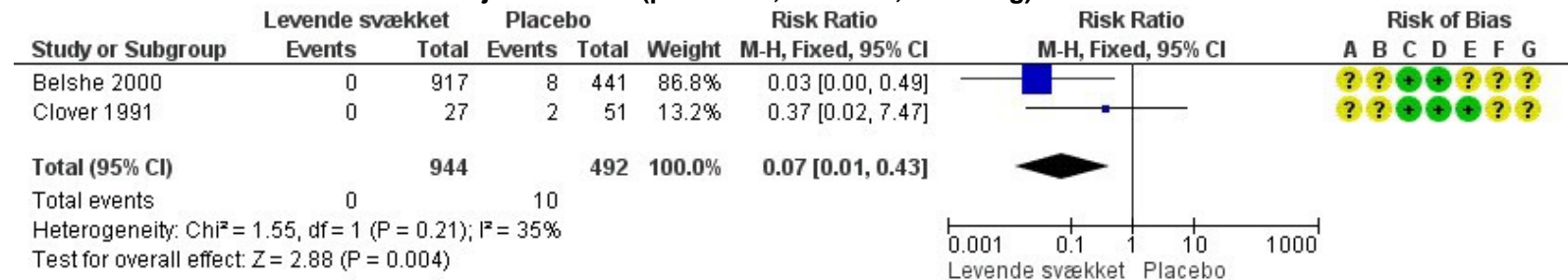
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn mellem to og seks år?**

**Udfaldsmål: Forekomst af nedre luftvejsinfektioner (pneumoni, bronkitis, wheezing).**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn mellem to og seks år?**

**Udfaldsmål: Brug af antibiotika**



Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias

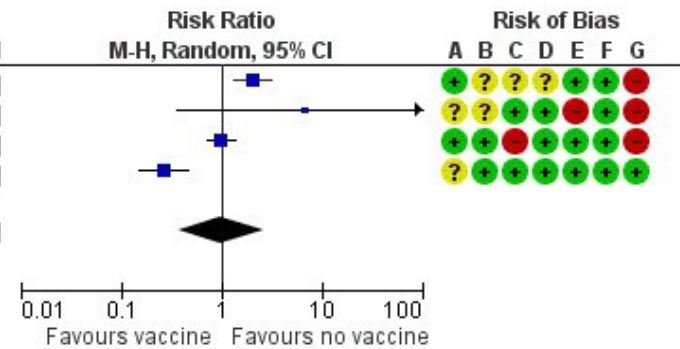


**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

**Udfaldsmål: Sygefravær hos personale, randomiserede forsøg**

| Study or Subgroup     | Vaccine |            | No vaccine |            | Weight        | Risk Ratio               |
|-----------------------|---------|------------|------------|------------|---------------|--------------------------|
|                       | Events  | Total      | Events     | Total      |               | M-H, Random, 95% CI      |
| Lemaitre 2009         | 36      | 175        | 39         | 388        | 30.8%         | 2.05 [1.35, 3.10]        |
| Saxen 1999            | 3       | 216        | 0          | 211        | 8.1%          | 6.84 [0.36, 131.60]      |
| Weingarten 1988       | 39      | 91         | 38         | 88         | 31.5%         | 0.99 [0.71, 1.39]        |
| Wilde 1999            | 14      | 180        | 52         | 179        | 29.6%         | 0.27 [0.15, 0.47]        |
| <b>Total (95% CI)</b> |         | <b>662</b> |            | <b>866</b> | <b>100.0%</b> | <b>0.99 [0.37, 2.61]</b> |

Total events 92 129  
 Heterogeneity: Tau<sup>2</sup> = 0.75; Chi<sup>2</sup> = 35.39, df = 3 (P < 0.00001); I<sup>2</sup> = 92%  
 Test for overall effect: Z = 0.03 (P = 0.98)



Risk of bias legend

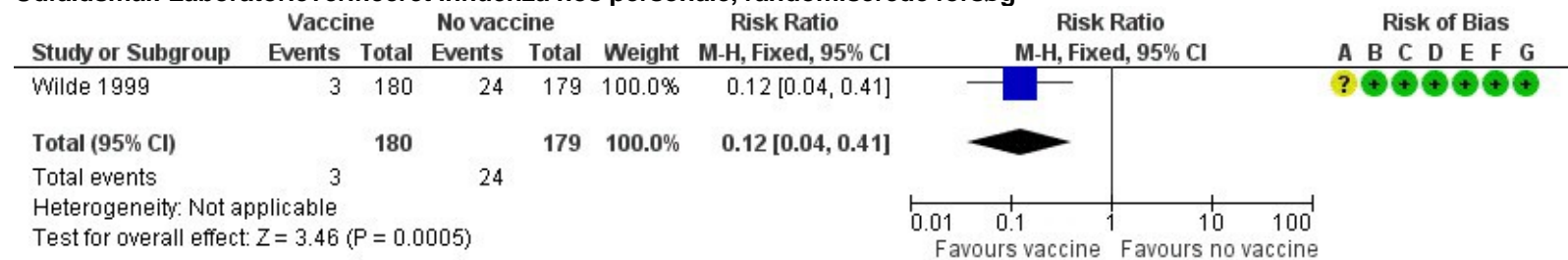
- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias





**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

**Udfaldsmål: Laboratorieverificeret influenza hos personale, randomiserede forsøg**



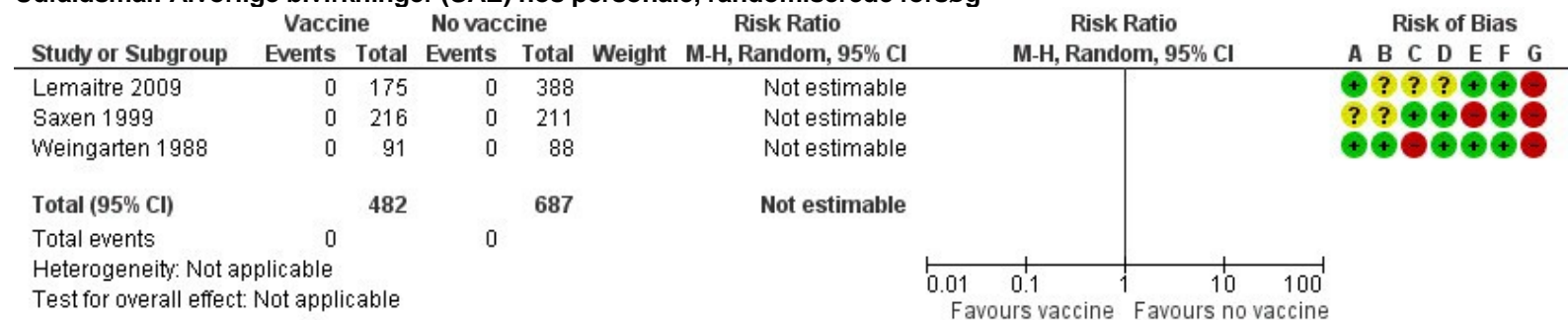
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?

Udfaldsmål: Alvorlige bivirkninger (SAE) hos personale, randomiserede forsøg



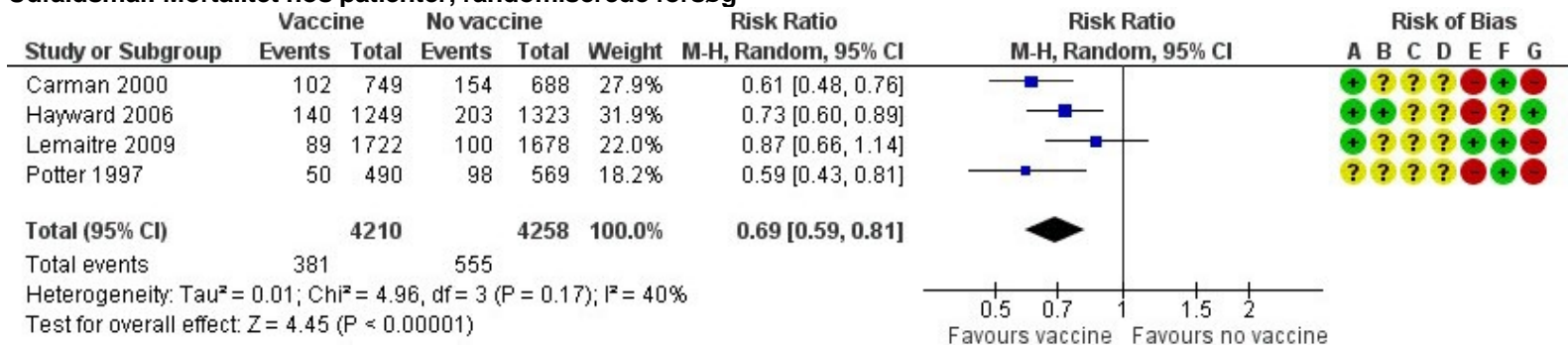
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?

Udfaldsmål: Mortalitet hos patienter, randomiserede forsøg



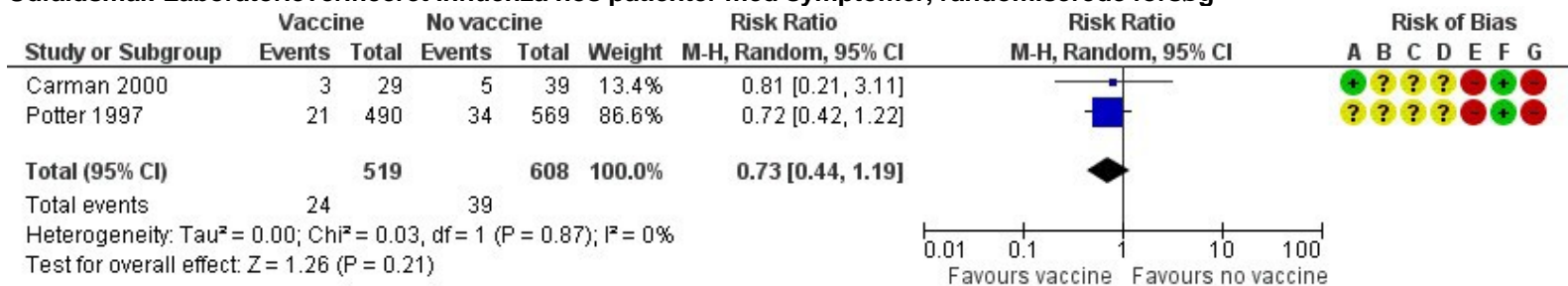
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

**Udfaldsmål: Laboratorieverificeret influenza hos patienter med symptomer, randomiserede forsøg**



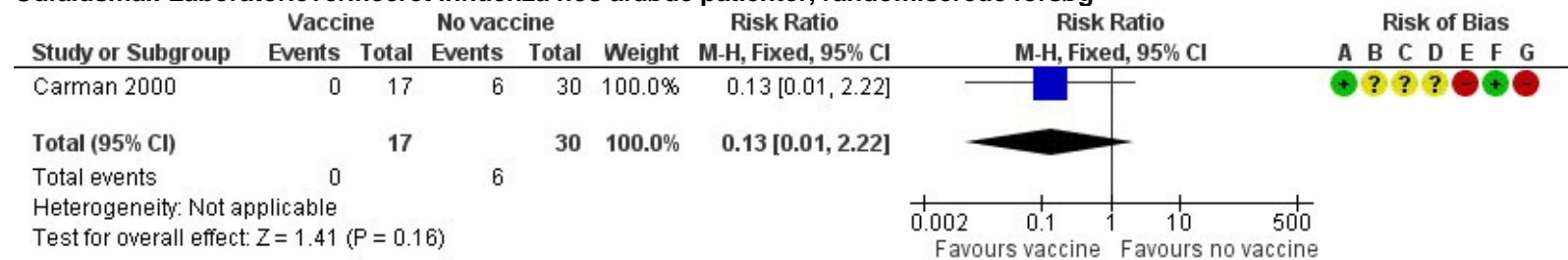
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

**Udfaldsmål: Laboratorieverificeret influenza hos afdøde patienter, randomiserede forsøg**



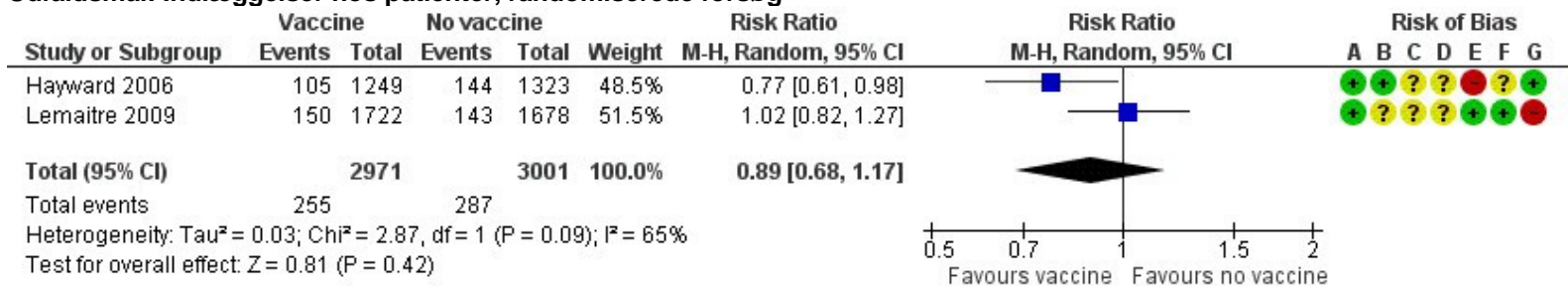
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?

Udfaldsmål: Indlæggelser hos patienter, randomiserede forsøg



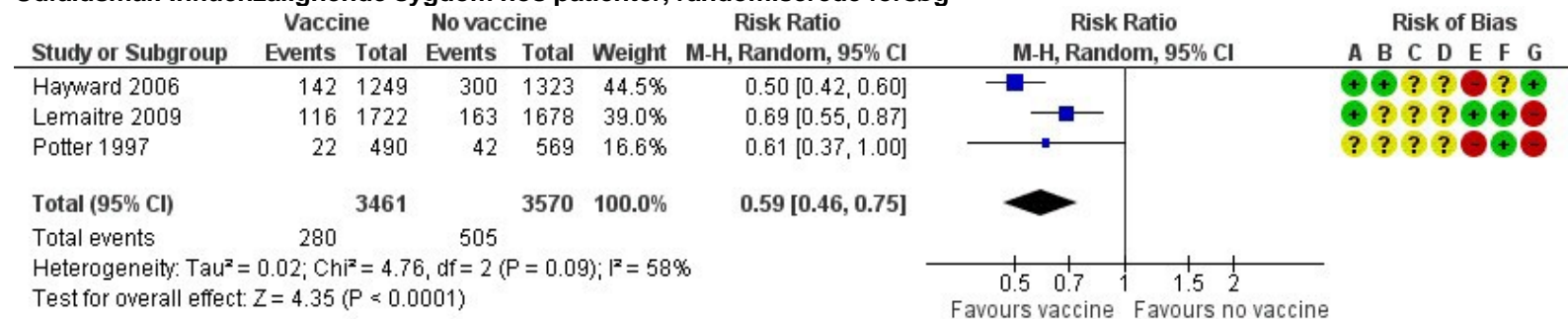
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

**Udfaldsmål: Influenzalignende sygdom hos patienter, randomiserede forsøg**



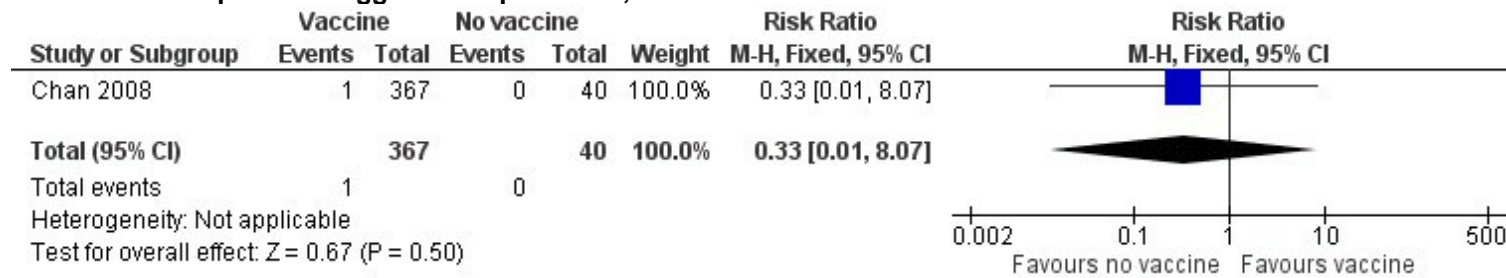
Risk of bias legend

- (A) Random sequence generation (selection bias)
- (B) Allocation concealment (selection bias)
- (C) Blinding of participants and personnel (performance bias)
- (D) Blinding of outcome assessment (detection bias)
- (E) Incomplete outcome data (attrition bias)
- (F) Selective reporting (reporting bias)
- (G) Other bias



**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**

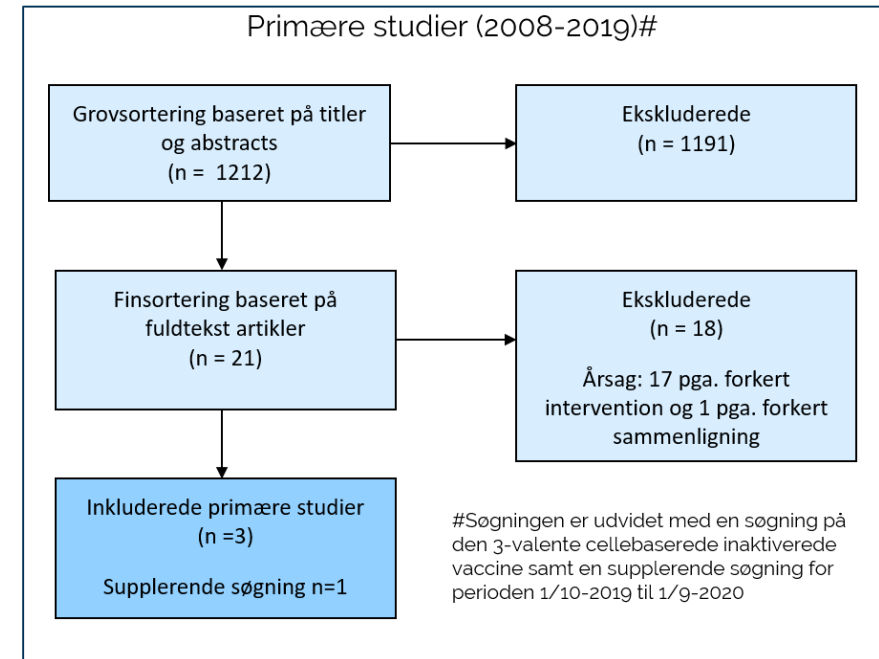
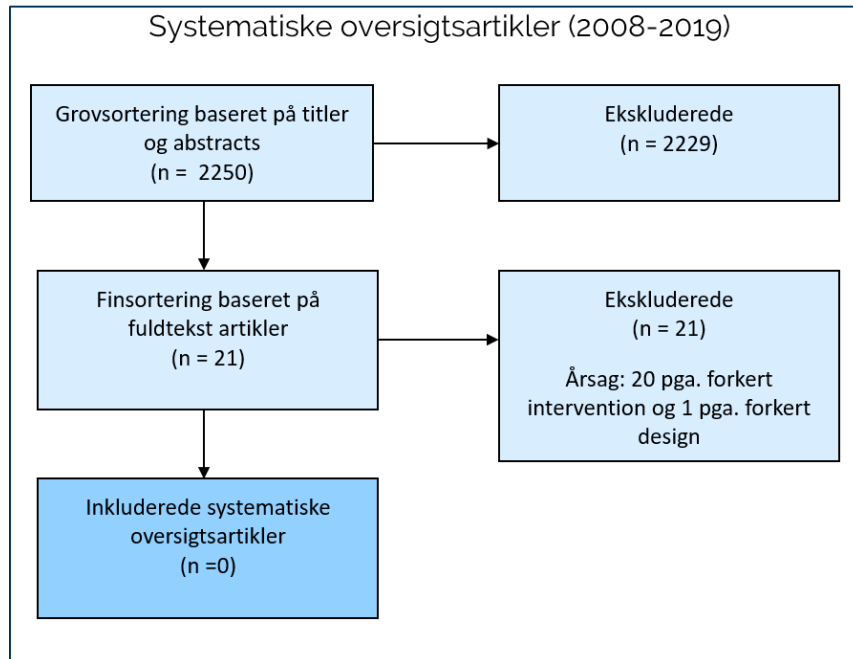
**Udfaldsmål: Hospitalsindlæggelse hos personale, observationelt studie**





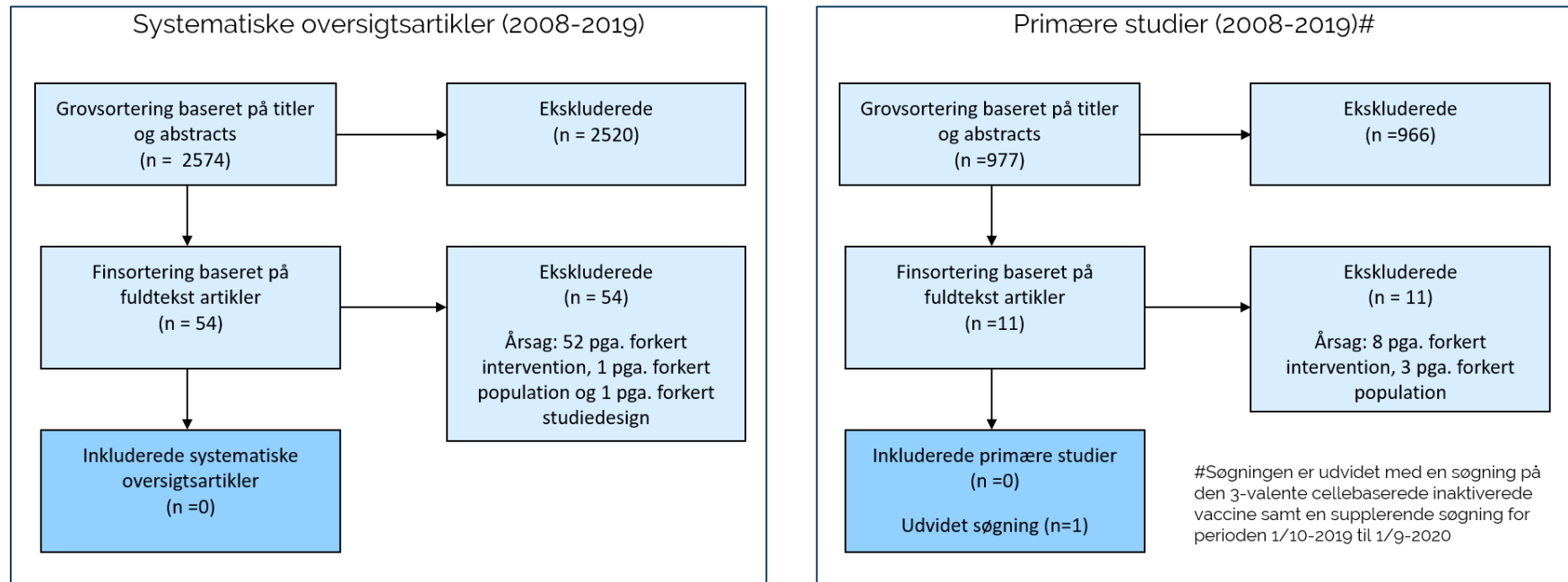
## Bilag 4 – Flowcharts

**Fokuseret spørgsmål 1: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner til ældre som er fyldt 65 år?**



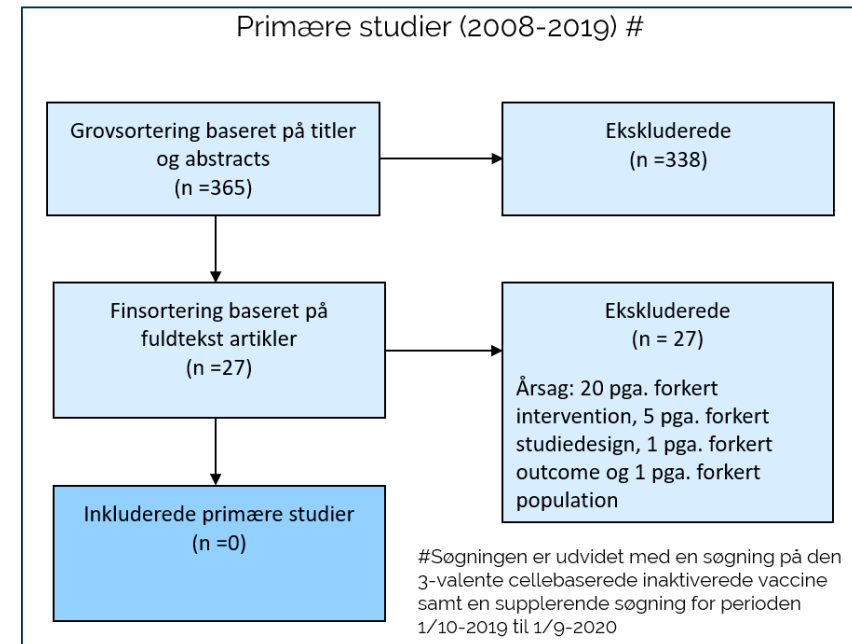
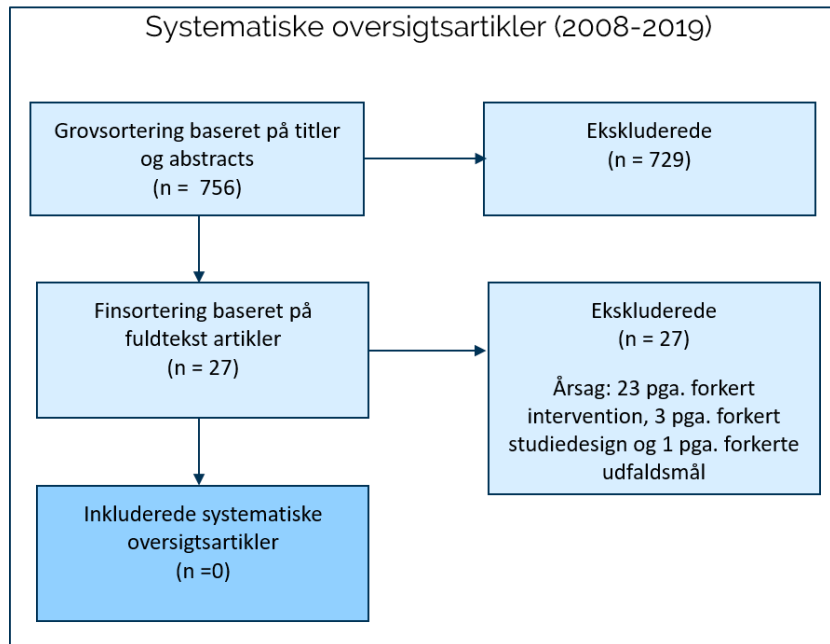


**Fokuseret spørgsmål 2: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner til personer med kronisk sygdom?**



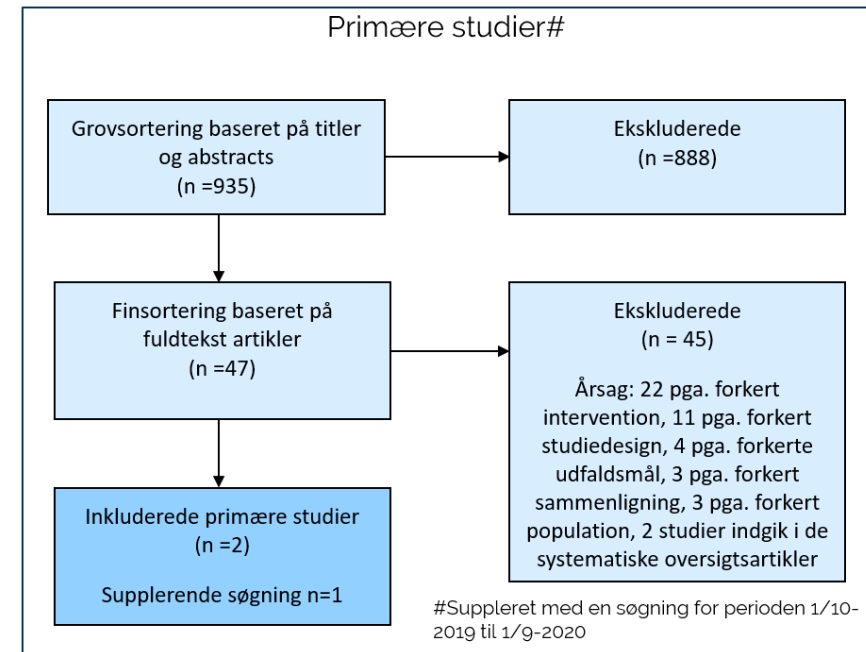
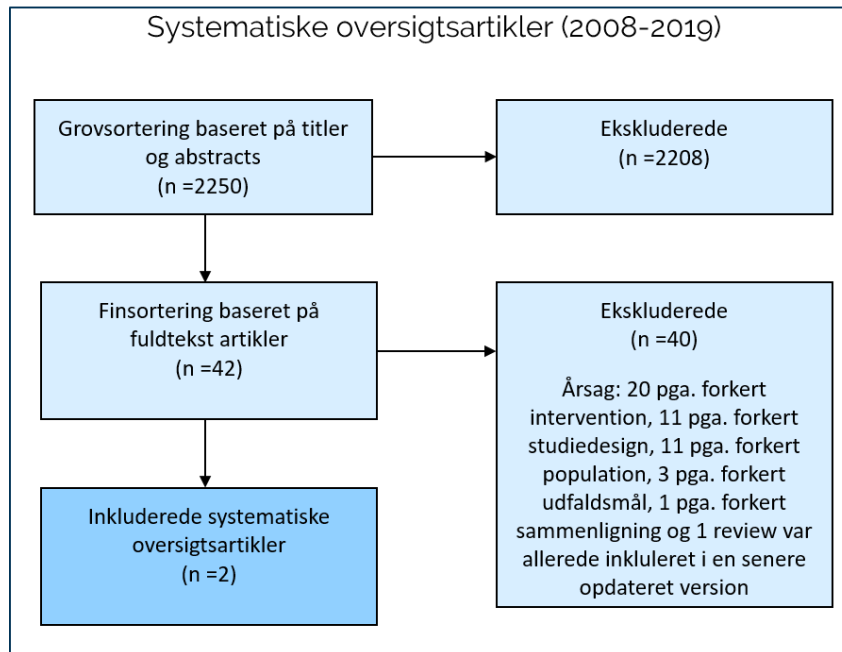


**Fokuseret spørgsmål 3: Hvad er effekten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner til gravide?**



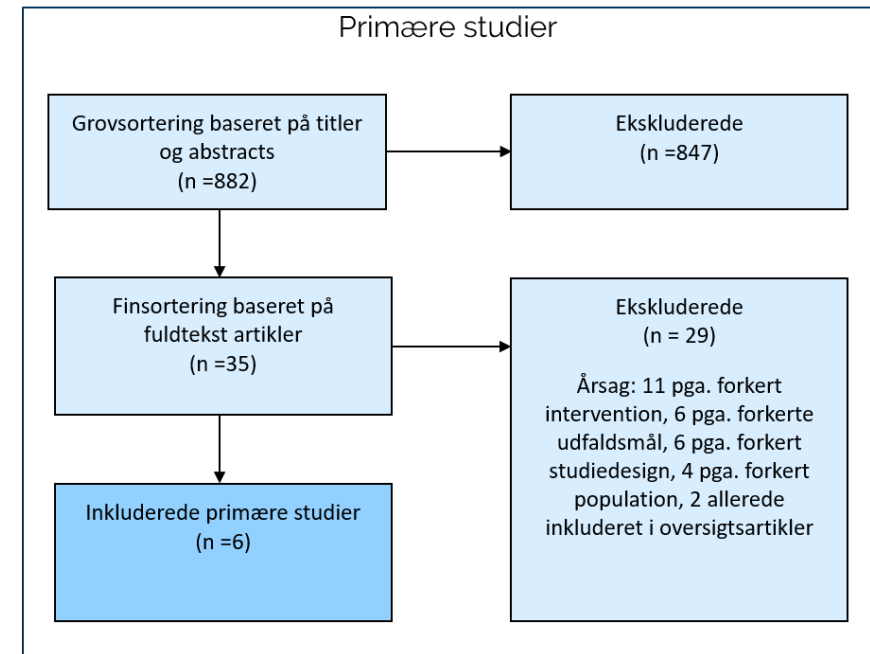
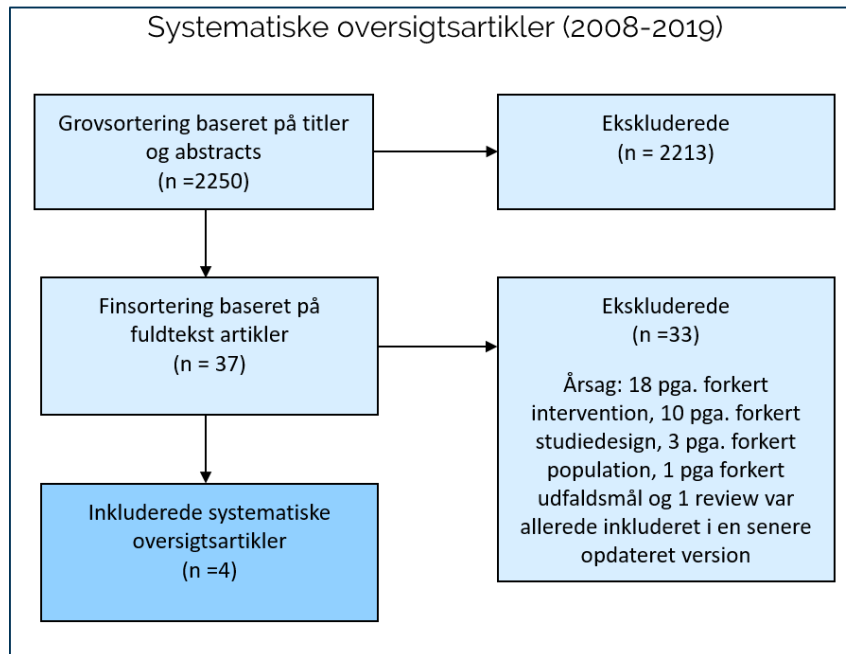


**Fokuseret spørgsmål 4: Hvad er effekten af vaccination med en 3-valent adjuveret inaktiveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner til ældre som er fyldt 65 år?**

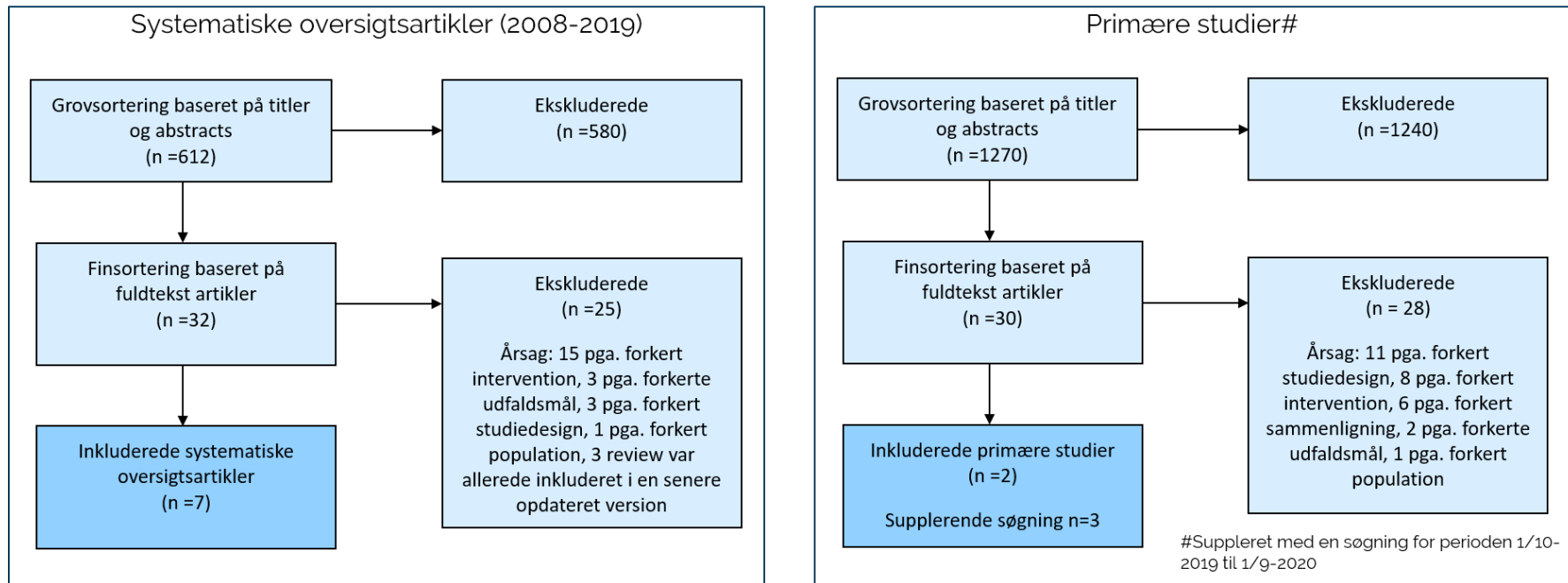




**Fokuseret spørgsmål 5: Hvad er effekten af vaccination med en højdosis inaktiveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner til ældre som er fyldt 65 år?**

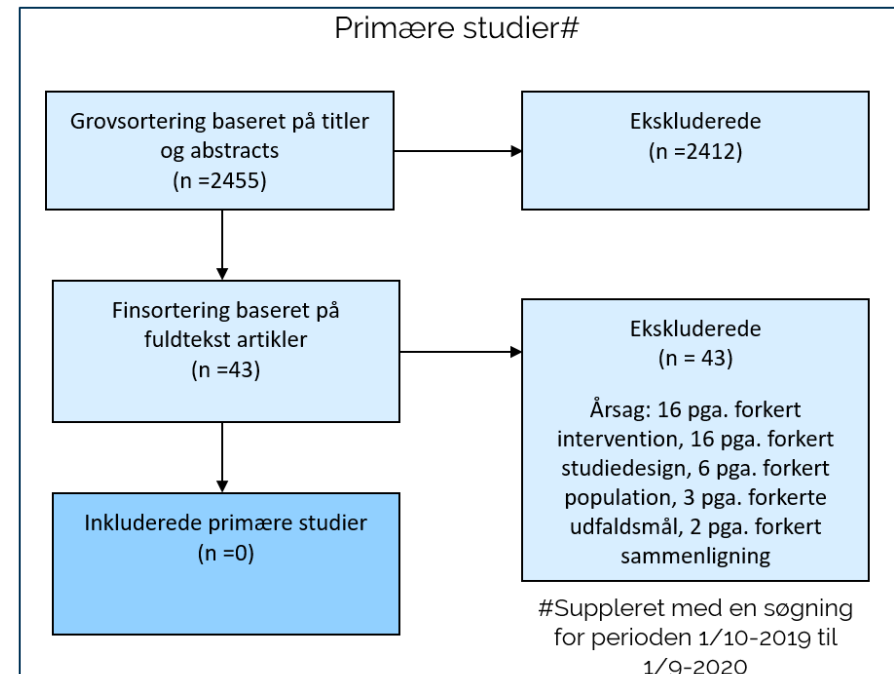
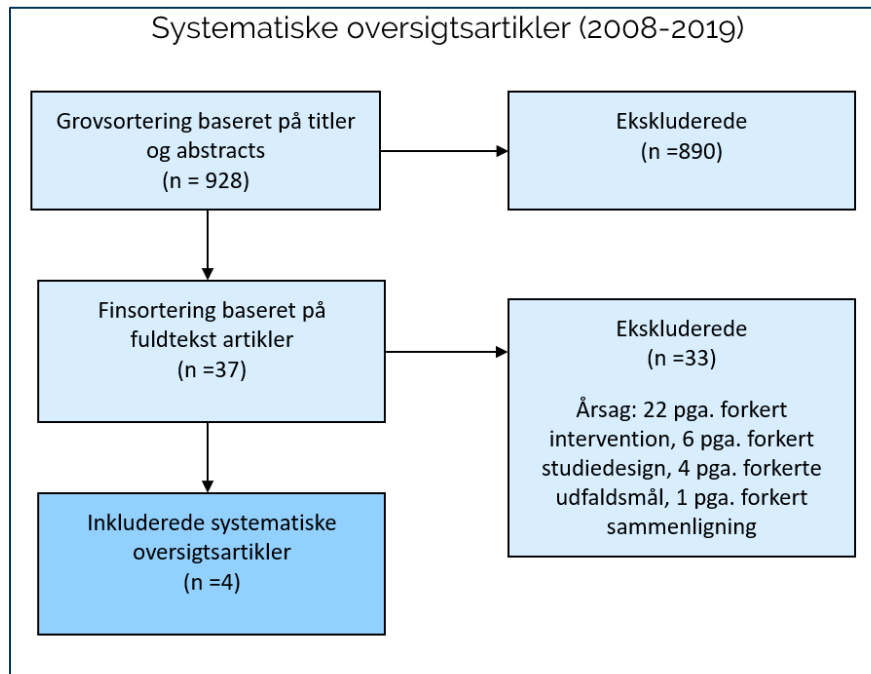


**Fokuseret spørgsmål 6: Hvad er effekten af vaccinationen med en inaktiveret influenzavaccine til raske børn under to år?**

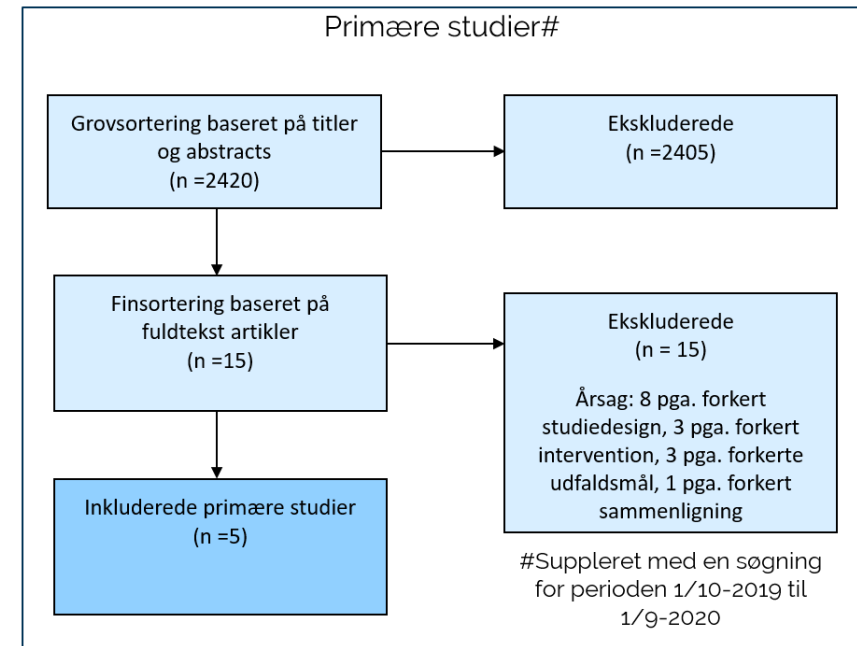
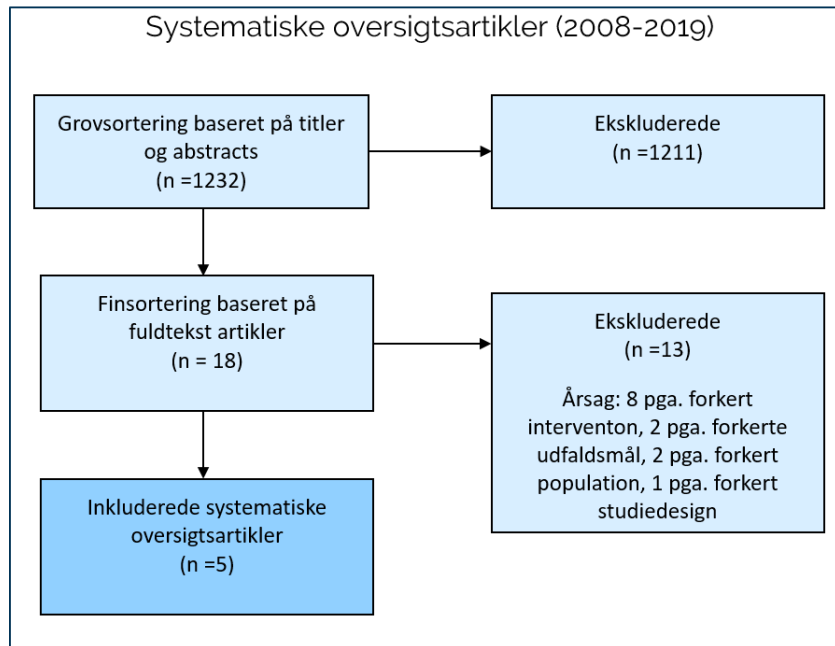




**Fokuseret spørgsmål 7: Hvad er effekten af vaccination med en levende svækket influenzavaccine til raske børn i alderen 2-6 år?**



**Fokuseret spørgsmål 8: Hvad er effekten af influenzavaccination af sundhedspersonale?**





## Bilag 5 – ROBINS-I

Nedenstående tabel viser oversigt over ROBINS-I.

| Study             | Confounding | Participants | Classify intervention | Deviation intervention | Missing data | Measurement outcome | Selection of reporting | Overall assessment |
|-------------------|-------------|--------------|-----------------------|------------------------|--------------|---------------------|------------------------|--------------------|
| Purig-Babera 2012 | Serious     | Serious      | Moderate              | Serious                | Serious      | Serious             | Serious                | <b>Serious</b>     |
| Purig-Babera 2013 | Moderate    | Moderate     | Moderate              | Moderate               | Moderate     | Moderate            | Low                    | <b>Moderate</b>    |
| Mannino 2012      | Serious     | Serious      | Moderate              | Serious                | Serious      | Serious             | Serious                | <b>Serious</b>     |
| Spadera 2014      | Serious     | Serious      | Moderate              | Serious                | Serious      | Serious             | Serious                | <b>Serious</b>     |
| Van Buynder 2013  | Serious     | Serious      | Moderate              | Moderate               | Serious      | Moderate            | Serious                | <b>Serious</b>     |
| Richardson        | Moderate    | Serious      | Moderate              | Moderate               | Serious      | Serious             | Serious                | <b>Serious</b>     |
| Young-Xu 2018     | Serious     | Serious      | Moderate              | Moderate               | Serious      | Moderate            | Serious                | <b>Serious</b>     |
| Izurieta 2018     | Serious     | Serious      | Moderate              | Serious                | Serious      | Serious             | Serious                | <b>Serious</b>     |
| Piedra 2005       | Serious     | Moderate     | Moderate              | Moderate               | Serious      | Serious             | Low                    | <b>Serious</b>     |
| Toback 2013       | Moderate    | Moderate     | Moderate              | Serious                | Serious      | Serious             | Low                    | <b>Serious</b>     |
| Chan 2008         | Serious     | Serious      | Serious               | Serious                | Serious      | Serious             | Low                    | <b>Serious</b>     |
| Izurieta 2018     | Serious     | Serious      | Moderate              | Serious                | Serious      | Serious             | Serious                | <b>Serious</b>     |

## Bilag 6 – Litteraturgennemgang til økonomikapitlet

### Metode

Der er gennemført en litteraturgennemgang for at få et overblik over eksisterende litteratur på området. Der er endnu ikke gennemført studier med de nye typer af vacciner, der undersøges i denne MTV, da de først er blevet tilgængelige fra 2019. Litteratursøgningen indeholder derfor alene litteratur om omkostningseffektivitet ved at influenzavaccinere forskellige populationer, fx børn, ældre eller personer med øget risiko for influenza.

Som et led i litteratursøgningen identificeres input til den økonomiske model, herunder QALY-tab og fravær fra arbejdsmarkedet i forbindelse med influenza.

Relevante økonomiske studier er identificeret gennem en systematisk litteratursøgning. Søgningen omfatter en gennemgang af publikationer, der er udgivet i perioden januar 2009 til november 2019.

I tabel 1 præsenteres de termer, der søges på i litteratursøgningen. Der søges efter litteratur på engelsk, norsk, svensk og dansk i følgende databaser: Pubmed, Cochrane database, HTA database og Forskningsdatabasen. Medical Subject Headings (MeSH-termer) er inkluderet, hvor det er relevant.

Tabel 1: Søgertermer

| Sygdomsområde   |     | Udfald  |
|---|-----|---|
| Influenza (MeSH) OR<br>Influenza vaccine (MeSH) OR<br>Influenza vaccination (MeSH) OR<br>"Influenza-like-illness" OR<br>Influenza, Human (MeSH) | AND | "Quality of life" OR<br>Quality of life (MeSH) OR<br>QALY (MeSH) OR<br>"Quality-adjusted life years" OR<br>Costs (MeSH) OR<br>"Cost-effectiveness" OR<br>"Cost-utility" |

Relevante publikationer udvælges ud fra nedenstående inklusions- og eksklusionskriterier.

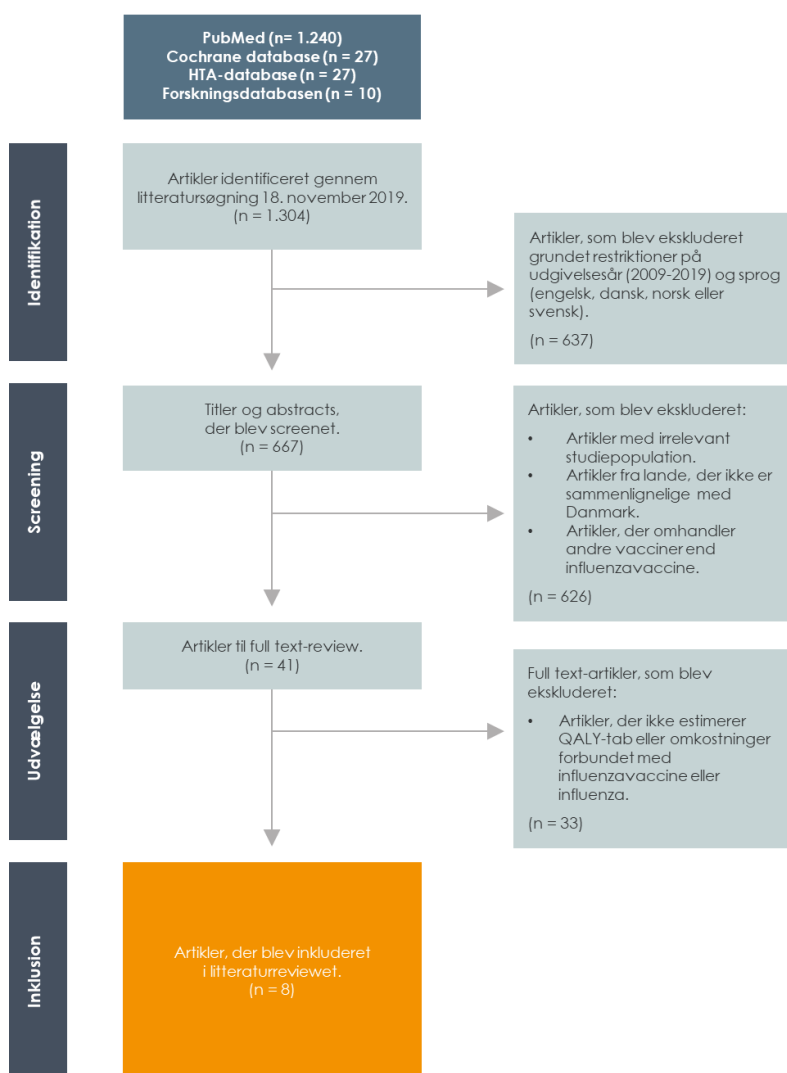
**Inklusionskriterier**

- Systematiske reviews eller metaanalyser, der undersøger omkostningseffektiviteten af influenzavaccination.
- Systematiske reviews, der undersøger, hvilken effekt influenzavaccination eller influenza har på livskvaliteten, herunder estimerer for QALY-tab.
- Primærstudier, herunder cost-effectiveness-studier, omhandlende samme type af økonomiske analyser, og som ikke er inkluderet i de identificerede systematiske reviews.

**Eksklusionskriterier**

- Studier fra lande, der ikke vurderes sammenlignelige med Danmark.
- Studier, hvor studiepopulationen er defineret af en sygdom (fx effekten af influenzavaccination blandt personer med hjerte-kar-sygdomme).

Figur 1 Litteratursøgningsproces



### Resultater af litteraturgennemgang

Litteratursøgningen resulterer i 667 artikler publiceret mellem 2009 og 2019. Ved den efterfølgende gennemgang af abstract vurderes 41 artikler til at være relevante til gennemlæsning. Efter gennemlæsning af 41 artikler bliver otte artikler inkluderet i reviewet, herunder fire systematiske litteraturreviews og fire primærstudier. De inkluderede studier er præsenteret i bilag, tabel 2 og tabel 3.

### Omkostningseffektivitet ved influenzavaccination

I følgende afsnit præsenteres viden om omkostningseffektiviteten af influenzavaccination i den generelle befolkning. Dernæst er resultater fra de specifikke målgrupper beskrevet. Dette omfatter personer over 65 år, personer med høj risiko for at få influenza og gravide i 2. og 3. trimester. Disse grupper tilbydes influenzavaccination i Danmark på nuværende



tidspunkt. Derudover er børn samt sundheds- og plejepersonale målgrupper, som potentielt vil have gavn af at blive tilbudt influenzavaccination. Derfor undersøges disse målgrupper også i denne litteraturgennemgang.

### Den generelle befolkning

De systematiske reviews inkluderer både studier, der sammenligner omkostningseffektiviteten i scenarier med og uden vaccinationsprogram, og studier, der sammenligner forskellige vaccinationsprogrammer eller typer af vaccinationer.

Blandt de 14 studier, der er identificeret i D'Angiolella *et al.*<sup>(1)</sup>, som inkluderer "ingen vaccination" som reference, rapporterer to, at vaccination er en omkostningsbesparende strategi (dvs. vaccination er en dominant strategi), otte rapporterer en inkrementel omkostningseffektratio under 150.000 kr./QALY, og to studier rapporterer en inkrementel omkostningseffektratio mellem 150.000 kr. og 370.000 kr./QALY. Alle studierne estimerer altså, at det er omkostningseffektivt at influenzavaccinere.

Blandt de 17 studier identificeret i D'Angiolella *et al.*<sup>(1)</sup>, der sammenlignede forskellige vaccinstrategier, er den 3-valente vaccine hyppigst evalueret og sammenlignet med den 4-valente vaccine eller "live attenuated influenza vaccine". Live attenuated Influenza vaccine er en svækket vaccine, der administreres nasalt, modsat de andre vacciner, som administreres via injektion. Tre af de inkluderede studier rapporterer, at den 3-valente vaccine er mindre effektiv og dyrere end de alternative vaccinationsmuligheder. Et studie rapporterer, at "live attenuated influenza vaccine" er omkostningsbesparende sammenlignet med den 3-valente vaccine. To studier rapporterer, at den 4-valente vaccine er omkostningsbesparende sammenlignet med den 3-valente, og ni studier finder, at den 4-valente vaccine er omkostningseffektiv sammenlignet med den 3-valente. Endelig finder to af de inkluderede studier, at den 4-valente vaccine er lige så effektiv som den 3-valente. Flere analyser indikerer ydermere, at den 4-valente vaccine medfører flere sundhedsfordele, fx reducerer den antallet af symptomatiske influenzatilfælde samt dødsfald og dermed mindre QALY-tab på grund af influenza sammenlignet med den 3-valente.

### Personer over 65 år

Det nyeste systematiske litteraturreview af omkostningseffektiviteten af influenzavaccine, inkluderet i vores søgning, er studiet af Dabestani *et al.*, som blev publiceret i 2019<sup>(2)</sup>. Reviewet gennemgår 12 artikler omhandlende omkostningseffektiviteten af influenzavaccination blandt en amerikansk population sammenlignet med et scenarie uden influenzavaccination, hvoraf seks af studierne inkluderer en population af personer over 65 år. Blandt dem rapporterer forfatterne en relativt lav omkostningseffektivitetsratio, hvor den inkrementelle omkostningseffektratio varierer fra at være omkostningsbesparende (dvs. det er både billigere og bedre at vaccinere) til at være 100.000 kr./QALY. Desuden konkluderer et af de inkluderede studier, at influenzavaccination reducerer risikoen for influenza blandt personer over 65 år med en risikoratio på 0,42, hvilket var statistisk signifikant lavere sammenlignet med et scenarie uden influenzavaccination. Forfatterne pointe-



rer, at nogle af grundene til de relativt lave omkostningseffektratioer er, at influenzavaccinen er billig (75-150 kr.), ligesom influenza er en sygdom, der rammer en relativt stor population hver år, hvorfor det har et stort potentiale at forebygge nogle af disse tilfælde.

Shields *et al.* <sup>(3)</sup> undersøger også omkostningseffektiviteten af at influenzavaccinere personer over 65 år. Ligesom ovennævnte review <sup>(2)</sup> rapporterer forfatterne, at syv ud af otte inkluderede artikler estimerer, at influenzavaccination blandt ældre er omkostningseffektiv. Et af de inkluderede studier tager højde for flokimmunitet, hvilket har en betydelig effekt på omkostningseffektiviteten. Forfatterne pointerer derfor, at denne dimension er væsentlig at tage højde for, da smitterisikoen mindskes, jo flere personer der er vaccineret, også blandt dem, der ikke er vaccineret. I den økonomiske analyse i denne rapport har vi taget højde for flokimmunitetseffekten.

Endelig identificerer D'Angiolella *et al.* <sup>(1)</sup> i 2018 11 studier, der undersøger effekten af influenzavaccination blandt personer over 65 år. De inkluderede studier varierer mellem at sammenligne et scenarie med influenzavaccination med et scenarie uden influenzavaccination og at sammenligne forskellige vaccinationsscenarioer, fx to forskellige typer af vaccinationer. Blandt de studier, der sammenligner influenzavaccination med ingen influenzavaccination, rapporterer fem en omkostningseffektratio under 150.000 kr./QALY, og et studie rapporterer en omkostningseffektratio mellem 150.000 og 370.000 kr./QALY. De to inkluderede studier, der sammenligner to typer af influenzavaccinationer blandt personer over 65 år, konkluderer begge, at en 4-valent vaccine er omkostningseffektiv sammenlignet med en 3-valent vaccine.

### Personer med høj risiko

Kun et af de identificerede litteraturreviews undersøger omkostningseffektiviteten i en population af personer med høj risiko for influenza. Denne population består af personer, der er i højere risiko for at udvikle influenza sammenlignet med den generelle befolkning og dem, der er i højere risiko for at udvikle influenzarelaterede komplikationer. D'Angiolella *et al.* <sup>(1)</sup> inkluderer fem studier blandt personer med høj risiko for influenza. Det er fx personer med kroniske respiratoriske sygdomme, kronisk hjertesygdom, kronisk lever sygdom og diabetes.

Alle de fem studier finder, at vaccinationsprogrammer mod influenza var dyrere end ingen vaccination, bortset fra i en population af patienter med tidligere lungebetændelse, formentlig fordi de var i højere risiko for at blive syge og blive indlagt på hospitalet sammenlignet med den generelle befolkning. Ligesom i flere af de andre populationer finder to studier blandt højrisikopatienter også, at den 4-valente vaccination er mere effektiv og reducerer flere influenzarelaterede sygdomme end den 3-valente vaccine. Ud af de to studier, der estimerer omkostningseffektratioen, estimerer det ene studie, at vaccination blandt personer med høj risiko er en omkostningsbesparende strategi, og det andet studie estimerer, at det er en omkostningseffektiv strategi.



### Gravide i 2. og 3. trimester

D'Angiolella *et al.* <sup>(1)</sup> inkluderer også studier, hvor målgruppen er gravide kvinder. Forfatterne identificerer tre studier, der estimerer omkostningseffektiviteten for influenzavaccination blandt gravide, sammenlignet med et scenarie, hvor gravide ikke er vaccineret. To af de inkluderede studier estimerer omkostningseffektforholdet til at være omkostningsbesparende eller omkostningseffektiv. Det sidste studie rapporterer modstridende resultater: De estimerer, at influenzavaccination er omkostningsbesparende blandt gravide kvinder i en influenzasæson med moderat influenzaaktivitet, men ikke omkostningseffektiv i en sæson med lav influenzaaktivitet<sup>(4)</sup>.

Dabestani *et al.* inkluderer tre studier, hvor målgruppen er gravide kvinder, hvoraf ét af studierne er det samme, som også er identificeret af D'Angiolella *et al.* Blandt de identificerede omkostningseffektivitetsstudier varierede omkostningseffektforholdet fra at være omkostningsbesparende til at være ikke-omkostningseffektiv. Forfatterne pointerer, at den målgruppe, hvor omkostningseffekten varierer mest, er blandt gravide kvinder, og at omkostningseffektiviteten netop afhænger af, om der er høj eller lav influenzaincidens i den pågældende sæson.

### Børn

I Danmark er børn på nuværende tidspunkt ikke inkluderet i influenzavaccinationsprogrammet. I en del øvrige europæiske lande tilbydes børn dog influenzavaccination og omkostningseffekten heraf er blandt andet undersøgt i D'Angiolella *et al.* <sup>(1)</sup>. Forfatterne inkluderer syv studier, der gennemgår omkostningseffektiviteten af influenzavaccine blandt børn.

Alle de inkluderede studier rapporterer, at influenzavaccination er mere omkostningseffektiv end ingen influenzavaccination, da vaccination forebygger et betydeligt antal indlæggelser og dødsfald samt resulterer i et mindre QALY-tab. Studier, der både inkluderer direkte og indirekte omkostninger, estimerer i højere grad, at vaccination er omkostningseffektiv, specielt blandt børn, da de i højere grad er smittebærere, og det dermed har en større effekt at vaccinere dem end andre målgrupper. Indirekte omkostninger omfatter produktionstab og fravær fra arbejdsmarkedet (i dette tilfælde blandt forældre). Derudover kan de indirekte effekter også forstås som effekter af fx flokkimmunitet. Alle syv studier rapporterer desuden omkostningseffektforholdet, der varierer fra at være omkostningsbesparende til at være omkostningseffektiv (dvs. mindre end 175.000 kr./QALY). De studier, der medregner effekter af eksempelvis flokkimmunitet, estimerede omkostningseffektforholdet, som er omkostningsbesparende.

### Sundheds- og plejepersonale

Imai *et al.* <sup>(5)</sup> undersøger de sundhedsmæssige og økonomiske effekter af, at sundheds- og plejepersonale vaccineres mod influenza. Det primære formål med reviewet og metaanalysen er at undersøge, om vaccinen reducerer fraværet i forbindelse med influenza eller influenzalignende sygdomme. Metaanalysen viser, at sygefravær i forbindelse med influenza i gennemsnit reduceres med 0,46 dag blandt sundheds- og plejepersonale,

som er vaccineret, sammenlignet med sundheds- og plejepersonale, som ikke er vaccineret. Dermed finder de inkluderede studier, at vaccination af sundheds- og plejepersonale er omkostningseffektivt baseret på de omkostningsbesparelser, der relaterer sig til reduceret sygefravær. I studierne rapporteres det ikke, om der er taget højde for, at vaccineret sundhedspersonale smitter patienterne og andre personer i mindre grad, end de ville gøre, hvis de ikke var vaccinerede. Denne effekt er medtaget i alle de analyser, der præsenteres i denne rapport.

### Effekter på kvalitetsjusterede leveår (QALY) af vaccinationer og influenza

I litteratursøgningen blev der identificeret fire primærstudier<sup>(6-9)</sup>, som undersøger, hvilket QALY-tab der er forbundet med at have influenza. De fire studier var alle nyere studier publiceret mellem 2011 og 2018 fra henholdsvis England, Belgien og Spanien, og de estimerer QALY-tab i forbindelse med influenzatilfælde.

#### Fakta

##### Tab af livskvalitet ved influenza

Ved influenza er den syges tab af livskvalitet typisk kortlagt ved at undersøge, hvor dårligt man har det, når man har influenza, og hvor lang tid man har det dårligt. Hvis en person med perfekt helbred (nytte=1) fx har en 20% nedgang i livskvalitet i 14 dage, svarer det til et QALY-tab samlet set over 1 år på 0,00767, beregnet som  $20\% \cdot 14/365$ . QALY-tabet bliver større, jo dårligere man får det af influenza, og jo længere tid man har det dårligt.

Set over et helt år et QALY-tab på 0,00767 relativt beskedent sammenlignet med andre mere alvorlige lidelser, men et tab i livskvalitet på 20% i en koncentreret periode (fx 14 dage) er mærkbart tab i den pågældende periode.

Nytte (eller en persons livskvalitet på et givent tidspunkt) estimeres ved brug af forskellige instrumenter, som indeholder spørgsmål til personen vedr. den fysiske og psykiske funktion og velbefindende på besvarelestidspunktet. Der er altså tale om selvrapporteret livskvalitet vha. et instrument. Et af de mest udbredte instrumenter er EQ-5D. Vha. en landespecifik algoritme er det muligt at omregne EQ-5D-besvarelsen til en nytteværdi og derefter ved at tilføje tidsdimensionen til en QALY-værdi.

Fragazy *et al.*<sup>(6)</sup> gennemførte et studie i England, hvor forfatterne inkluderer mere end 5.400 personer, som blev tilfældigt udvalgt gennem praktiserende læger. Deltagerne blev fulgt gennem seks influenzasæsoner, hvor de ugentligt rapporterede, hvorvidt de havde symptomer. I perioder med symptomer rapporterer deltagerne dagligt symptomer, temperatur, sygemelding samt livskvalitet målt ved EQ-5D. EQ-5D blev udfyldt ved studiestart samt dagligt i sygdomsperioder. Forfatterne estimerer det QALY-tab, der er forbundet med influenzatilfælde, hvor patienten ikke er i kontakt med sundhedsvæsenet. Blandt børn under 15 år er QALY-tabet i forbindelse med influenza 0,0029. Det er lavere end blandt personer mellem 16 og 65 år og personer over 65 år, hvor QALY-tabet i begge aldersgrupper er 0,0048.



I et prospektivt populationsbaseret studie af van Hoek <sup>(7)</sup>, også fra England, inkluderer forfatterne både personer med klinisk bekræftet influenza og ikke-klinisk bekræftet influenza med samme influenzasympotomer. Begge populationer udfylder to spørgeskemaer: ét inden for en uge, efter symptomerne viste sig, og ét to uger efter. Spørgeskemaet indeholder spørgsmål om sygdomslængde, fravær fra arbejdsmarkedet samt EQ-5D spørgsmål til at måle livskvalitet. Forfatterne estimerer et QALY-tab både blandt patienter med klinisk bekræftet og ikke-klinisk bekræftet influenza på henholdsvis 0,008 og 0,0075.

Bilcke *et al.* <sup>(8)</sup> undersøger QALY-tab i forbindelse med influenza i en population af 2.250 belgiere. Forfatterne rekrutterer deltagere ved at ringe til tilfældigt udvalgte. Dem, der har influenzasympotomer, får tilsendt et spørgeskema om deres sygdomsforløb samt livskvalitet baseret på SF-12v2. Bilcke *et al.* estimerer QALY-tab i tre influenzapopulationer i Belgien: Influenzapatienter, der ikke har kontakt til sundhedsvæsenet, influenzapatienter, der har kontakt til egen læge/ambulatorium, og influenzapatienter, der er indlagt på et hospital. De tre populationers QALY-tab i forbindelse med influenza er henholdsvis 0,005, 0,006 og 0,009.

Endelig estimerer Hollmann *et al.* <sup>(9)</sup> QALY-tabet blandt 432 indlagte og 563 ambulante patienter med klinisk bekræftet influenza i Spanien. Patienterne rekrutteres på hospitalet og deltager i to interviews i løbet af studieperioden: Ét ved baseline og ét, efter de er blevet raske. Ved baseline spørges de til livskvalitet syv dage inden influenzaepisoden og i løbet af influenzaepidemien, som måles ved EQ-5D. Ved det opfølgende interview spørges de til livskvalitet efter sygdomsperioden. Forfatterne estimerer et QALY-tab på 0,031 blandt indlagte patienter og 0,009 blandt ambulante patienter.

På trods af det relativt lave QALY-tab, som influenza medfører for enkeltpersoner, er QALY-tabet ikke ubetydeligt. Den totale byrde for samfundet som helhed af influenza er betydeligt større end byrden ved andre infektionssygdomme <sup>(9)</sup>. Ligeledes medfører influenza et betydeligt produktionsstab, da patienten sandsynligvis vil have fravær fra sit job i forbindelse med sygdom. I de inkluderede studier er fraværet estimeret til at være mellem to og syv dage for patienter, der ikke er indlagt på hospitalet <sup>(10-12)</sup>.

### Opsummering

Langt de fleste studier, der har estimeret omkostningseffektiviteten af influenzavaccination, finder, at influenzavaccination er omkostningseffektiv. Studierne finder altså, at det godt kan betale sig for samfundet at vaccinere mod influenza, specielt i subpopulationer som børn, ældre og sundheds- og plejepersonale. Flere af forfatterne pointerer, at det er specielt effektivt at vaccinere børn, idet de ofte er smittebærere.

De primærstudier, der har estimeret, hvilket QALY-tab der er forbundet med at have influenza, har estimeret QALY-tabet i det år, hvor man har influenza til mellem 0,0048 og 0,009 blandt voksne, som ikke er indlagt, og et enkelt studie estimerer QALY-tabet blandt børn til at være en smule lavere (0,0029). Yderligere estimerer studierne, at influenza medfører et fravær fra arbejdspladsen på mellem to og syv dage.

Referencer til bilag 6.

- (1) D'Angiolella LS, Lafranconi A, Cortesi PA, Rota S, Cesana G, Mantovani LG. Costs and effectiveness of influenza vaccination: a systematic review. *Ann Ist Super Sanita* 2018;54(1):49-57.
- (2) Dabestani NM, Leidner AJ, Seiber EE, Kim H, Graitcer SB, Foppa IM, et al. A review of the cost-effectiveness of adult influenza vaccination and other preventive services. *Prev Med* 2019;126:105734.
- (3) Shields GE, Elvidge J, Davies LM. A systematic review of economic evaluations of seasonal influenza vaccination for the elderly population in the European Union. *BMJ Open* 2017;7(6):e014847-2016-014847.
- (4) Krubiner CB, Faden RR, Karron RA, Little MO, Lysterly AD, Abramson JS, et al. Pregnant women & vaccines against emerging epidemic threats: Ethics guidance for preparedness, research, and response. *Vaccine* 2019.
- (5) Imai C, Toizumi M, Hall L, Lambert S, Halton K, Merollini K. A systematic review and meta-analysis of the direct epidemiological and economic effects of seasonal influenza vaccination on healthcare workers. *PLoS One* 2018;13(6):e0198685.
- (6) Fragaszy EB, Warren-Gash C, White PJ, Zambon M, Edmunds WJ, Nguyen-Van-Tam JS, et al. Effects of seasonal and pandemic influenza on health-related quality of life, work and school absence in England: Results from the Flu Watch cohort study. *Influenza Other Respir Viruses* 2018;12(1):171-182.
- (7) van Hoek AJ, Underwood A, Jit M, Miller E, Edmunds WJ. The impact of pandemic influenza H1N1 on health-related quality of life: a prospective population-based study. *PLoS One* 2011;6(3):e17030.
- (8) Bilcke J, Coenen S, Beutels P. Influenza-like-illness and clinically diagnosed flu: disease burden, costs and quality of life for patients seeking ambulatory care or no professional care at all. *PLoS One* 2014;9(7):e102634.
- (9) Hollmann M, Garin O, Galante M, Ferrer M, Dominguez A, Alonso J. Impact of influenza on health-related quality of life among confirmed (H1N1)2009 patients. *PLoS One* 2013;8(3):e60477.
- (10) Gesser-Edelsburg A, Mordini E, James JJ, Greco D, Green MS. Risk Communication Recommendations and Implementation During Emerging Infectious Diseases: A



Case Study of the 2009 H1N1 Influenza Pandemic. Disaster med public health prep 2014;1-12.

(11) Ba-Nguz A, Shah A, Bresee JS, Lafond KE, Cavallaro K, Shefer A, et al. Supporting national immunization technical advisory groups (NITAGs) in resource-constrained settings. New strategies and lessons learned from the Task Force for Global Health's Partnership for influenza vaccine introduction. *Vaccine* 2019.

(12) McNamara M, Buck PO, Yan S, Friedland LR, Lerch K, Murphy A, et al. Is patient insurance type related to physician recommendation, administration and referral for adult vaccination? A survey of US physicians. *Hum Vaccin Immunother* 2019;1-10.

(13) Moore DL. Vaccine recommendations for children and youth for the 2018/2019 influenza season. *Paediatr child health* 2018;23(8):565-566.

(14) Kuchar E, Ludwikowska K, Szenborn L, Antczak A, Mastalerz-Migas A, Nitsch-Osuch A. Knowledge Regarding Influenza and Influenza Vaccination in General Population: Results of a National Survey in Poland. *Adv Exp Med Biol* 2018;1108:55-61.

(15) Chae W, Kim P, Hwang BJ, Seong BL. Universal monoclonal antibody-based influenza hemagglutinin quantitative enzyme-linked immunosorbent assay. *Vaccine* 2019;37(11):1457-1466.

## Bilag 7 – Litteraturgennemgang til økonomikapitlet, oversigter

Tabel 2: Oversigt over systematiske litteraturreviews identificeret gennem literatursøgning

| Forfatter (år)               | Dabestani <i>et al.</i> (2019)  | D'Angiolella <i>et al.</i> (2018)  | Imai <i>et al.</i> (2018)  | Shields <i>et al.</i> (2017)   |
|------------------------------|---|--|--|--|
| Titel                        | A review of the cost-effectiveness of adult influenza vaccination and other preventive services                 | Costs and effectiveness of influenza vaccination: a systematic review        | A systematic review and meta-analysis of the direct epidemiological and economic effects of seasonal influenza vaccination on healthcare workers | A systematic review of economic evaluations of seasonal influenza vaccination for the elderly population in the European Union |
| Formål                       | At estimere omkostningseffektiviteten af influenzavaccination blandt voksne sammenlignet med ingen vaccination. | At estimere omkostningseffektiviteten af influenzavaccination.               | At estimere sundheds- og økonomiske effekter af influenzavaccination blandt sundhedsprofessionelle.  | At gennemgå, om det er omkostningseffektivt at vaccinere ældre i EU.   |
| Periode for literatursøgning | Januar 1996 til januar 2016   | Januar 2012 til januar 2017  | Januar 1980 til januar 2018  | Ikke specificeret i artiklen   |
| Målpopulation                | Voksne, ældre over 65 år og gravide   | Børn, voksne, ældre, gravide, personer med høj risiko samt hele befolkningen | Sundheds- og plejepersonale  | Ældre over 65 år   |
| Antal inkluderede studier    | 12  | 30   | 13   | 8  |

|            |  |   |   |  |
|------------|--|---|---|--|
| Konklusion | Reviewet finder, at influenzavaccination blandt voksne i USA højest sandsynligt vil være omkostningseffektivt. | Alle de inkluderede studier med undtagelse af ét rapporterer, at influenzavaccination er omkostningseffektiv eller omkostningsbesparende. | Reviewet underbygger effekten af influenzavaccine blandt sundhedsprofessionelle, dels ved at reducere incidensen af influenza og dels ved at forkorte sygefraværperioden i forbindelse med influenza. | Forfatterne konkluderer, at syv ud af otte studier rapporterer, at influenzavaccination blandt ældre i EU var omkostningseffektivt.              |
| Lande      | Alle inkluderede studier var fra USA   | 12 fra Europa, 9 fra USA, 3 fra Canada, 3 fra Kina, 1 fra Tyrkiet, 1 fra Thailand, 1 fra Australien og 1 fra Israel                       | 2 fra Italien, 1 fra Hong Kong, 1 fra Taiwan, 2 fra Japan, 1 fra Singapore, 1 fra Belgien, 1 fra Finland, 1 fra Australien, 1 fra Canada og 2 fra USA   | 2 fra Italien, 2 fra UK, 1 fra Frankrig, 1 fra Polen, 1 fra Holland, 1 fra Tyskland, Holland og UK og 1 fra England, Wales, Frankrig og Tyskland |

Tabel 3: Oversigt over primærlitteratur identificeret gennem litteratursøgning

| Forfatter (år) | <b>Fragazy et al. (2018)</b>  | <b>van Hoek et al. (2011)</b>   | <b>Bilcke et al. (2014)</b>  | <b>Hollmann et al. (2013)</b>  |
|----------------|---|---|--|--|
| Titel          | Effects of seasonal and pandemic influenza on health-related quality of life, work and school absence in England: Results from the Flu Watch cohort study | The Impact of Pandemic Influenza H1N1 on Health-Related Quality of Life: A Prospective Population-Based Study | Influenza-Like-Illness and Clinically Diagnosed Flu: Disease Burden, Costs and Quality of Life for Patients Seeking Ambulatory Care or No Professional Care at All | Impact of Influenza on Health-Related Quality of Life among Confirmed (H1N1)2009 Patients  |
| Formål         | At estimere QALY-tab og fravær fra skole/arbejde i forbindelse med influenza blandt personer, der ikke er i kontakt med sundhedsvæsenet.                  | At estimere QALY-tab i forbindelse med influenza for at kunne sammenligne med andre sygdomsområder.           | At beskrive byrden af influenzatilfælde uden for hospitalet.   | At estimere livskvalitet blandt influenza-patienter samt QALY-tab forbundet med sygdommen. |
| Design         | Kohortestudie   | Prospektivt populationsbaseret studie   | Prospektivt kohortestudie  | Longitudinelt studie   |



|                       |   |  |  |  |
|-----------------------|---|--|--|--|
| Population            | 5.484 personer, som var tilfældigt udvalgt af praktiserende læger.  | 287 personer med bekræftet eller ikke-bekræftet influenza fra syv forskellige regioner i England.  | 2.250 personer med influenza-symptomer.  | 432 indlagte patienter og 563 ambulante patienter.   |
| Resultater (QALY-tab) | Børn: 0,0029<br>Personer mellem 16 og 65 år og personer over 65 år: 0,0048  | Patienter med ikke-klinisk bekræftet influenza: 0,0075<br>Patienter med klinisk bekræftet influenza: 0,008   | Influenzapatienter, der ikke har kontakt til sundhedsvæsenet: 0,005<br>Influenzapatienter, der har kontakt til egen læge/ambulatorium: 0,006<br>Influenzapatienter, der er indlagt på et hospital: 0,009 | Indlagte patienter: 0,031<br>Ambulante patienter: 0,009  |
| Konklusion            | QALY-tabet var mindre end i tidligere studier, fordi forfatterne inkluderede ikke-klinisk bekræftede influenzatilfælde. | QALY-tabet er minimalt for enkeltpersoner, men den samlede byrde i forbindelse med influenza er betydelig sammenlignet med andre infektionssygdomme. | Vaccination var forbundet med lavere omkostninger og højere livskvalitet under sygdom.   | Influenza havde en betydelig men midlertidig betydning for livskvaliteten for størstedelen af patienterne. |
| Land                  | England   | England  | Belgien  | Spanien  |

## Bilag 8 – Antagelser i den økonomiske model

De undersøgte scenarier er vist i tabellen nedenfor. I dette bilag henviser vi til numrene, når vi omtaler de forskellige parametre.

### Fokuserede spørgsmål

1. Hvad er omkostningseffektiviteten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?
2. Hvad er omkostningseffektiviteten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt personer med en kronisk sygdom?
3. Hvad er omkostningseffektiviteten af vaccination med en cellebaseret inaktiveret 4-valent influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt gravide?
4. Hvad er omkostningseffektiviteten af vaccination med en 3-valent adjuveret influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?
5. Hvad er omkostningseffektiviteten af vaccination med en high-dose influenzavaccine sammenlignet med andre inaktiverede influenzavacciner blandt ældre på 65 år eller derover?
6. Hvad er omkostningseffektiviteten af vaccination med en levende svækket influenzavaccine til raske børn mellem 2-6 år?
7. Hvad er omkostningseffektiviteten af vaccination med en inaktiveret influenzavaccine til raske børn under 2 år?
8. Hvad er omkostningseffektiviteten af vaccination af sundhedspersonale?

### Vaccinationsdækning

I analysen er antaget, at vaccinationsdækningen er uændret for scenarie 1-5. For børn og sundhedspersonale har vi regnet med en vaccinationsdækning på 75%.

### Vaccinens effekt

Vaccineeffektiviteten afhænger af aldersgruppe og vaccine-type. I tabellen nedenfor ses vaccineeffektiviteten af den vaccine, der blev anvendt i årene, der ligger til grund for basis-scenariet.



| Aldersgruppe | Ikke højrisiko | Højrisiko |
|--------------|----------------|-----------|
| [0,2)        | 55%            | 30%       |
| [2,6)        | 55%            | 30%       |
| [6,15)       | 55%            | 30%       |
| [15,45)      | 38%            | 30%       |
| [45,65)      | 37%            | 25%       |
| 65+          | 23%            | 23%       |

Kilde: Sundhedsstyrelsen.

I tabellen nedenfor er angivet de faktorer, som ganges på vaccineeffektiviteten i de forskellige scenarier.

| Scenarie | Faktor til vaccineffektiviteten |
|----------|---------------------------------|
| 1        | 1,11                            |
| 2        | 1,08                            |
| 3        | 1,08                            |
| 4        | 2,70                            |
| 5        | 1,32                            |
| 6        | 1                               |
| 7        | 1                               |
| 8        | 1                               |

Kilde: Sundhedsstyrelsen baseret på omfattende litteratursøgning og vurdering.

### Kontaktmatrix

Tabellen nedenfor angiver antallet af kontakter mellem befolkningsgrupper i Danmark.

|         | [0,2) | [2,6) | [6,15) | [15,45) | [45,65) | 65+  |
|---------|-------|-------|--------|---------|---------|------|
| 65+     | 0,05  | 0,09  | 0,38   | 2,05    | 2,23    | 2,48 |
| [45,65) | 0,10  | 0,23  | 0,68   | 5,24    | 4,90    | 1,16 |
| [15,45) | 0,16  | 0,56  | 1,47   | 9,84    | 3,35    | 0,70 |
| [6,15)  | 0,13  | 0,96  | 12,77  | 5,53    | 1,62    | 0,49 |
| [2,6)   | 0,79  | 12,30 | 2,15   | 7,16    | 1,86    | 0,27 |
| [0,2)   | 1,50  | 1,57  | 0,58   | 4,81    | 1,54    | 0,28 |

Kilde: Mossong et al.<sup>(13)</sup>

Antallet af kontakter, som de yngste børn har, er øget efter dialog med Sundhedsstyrelsen. Det skyldes, at danske børn i langt højere grad end hollandske børn bliver passet i institution. Det gælder både andelen af børn og antallet af timer pr. barn i pasningsordning.

Kontaktmatricen for sundhedspersonale er vist nedenfor.





|                        | [0,2) | [2,6) | [6,15) | [15,45) | [45,65) | 65+  | Sundheds-<br>personale |
|------------------------|-------|-------|--------|---------|---------|------|------------------------|
| 0-2                    | 1,50  | 1,57  | 0,58   | 4,81    | 1,54    | 0,28 | 0,12                   |
| [2,6)                  | 0,79  | 12,30 | 2,15   | 7,16    | 1,86    | 0,27 | 0,06                   |
| [6,15)                 | 0,13  | 0,96  | 12,77  | 5,53    | 1,62    | 0,49 | 0,04                   |
| [15,45)                | 0,16  | 0,56  | 1,47   | 9,84    | 3,35    | 0,70 | 0,13                   |
| [45,65)                | 0,10  | 0,23  | 0,68   | 5,24    | 4,90    | 1,16 | 0,16                   |
| 65+                    | 0,05  | 0,09  | 0,38   | 2,05    | 2,23    | 2,48 | 1,31                   |
| Sundheds-<br>personale | 0,05  | 0,05  | 0,12   | 1,55    | 1,90    | 5,01 | 14,64                  |

### Kontakt til sundhedsvæsenet og døde

| Type kontakt                                    | %     |
|---|-------|
| Andel uden kontakt til sundhedsvæsenet          | 69,5% |
| Andel med kontakt til egen læge/vagtlæge        | 30,0% |
| Andel der bliver indlagt                        | 0,5%  |
| - Af disse andel der kommer på intensivafdeling | 7%    |

Kilde: Sundhedsstyrelsen.

|         | Andel døde |
|---------|------------|
| [0,2)   | 0,0059%    |
| [2,6)   | 0,0032%    |
| [6,15)  | 0,0004%    |
| [15,45) | 0,0021%    |
| [45,65) | 0,0021%    |
| 65+     | 0,0589%    |
| Andre   | 0,0021%    |

Kilde: Statens Serum Institut.

### Produktivitetstab

| Aldersgruppe | Antal dage | Note                     |
|--------------|------------|--------------------------|
| [0,2)        | 1          | Forældres første sygedag |
| [2,6)        | 1          | Forældres første sygedag |
| [6,15)       | 1          | Forældres første sygedag |
| [15,45)      | 5          | Antagelse                |
| [45,65)      | 5          | Antagelse                |
| 65+          | 5          | Antagelse                |



### Livskvalitet set over 1 år

| Influenza                           | QALY     |
|-------------------------------------|----------|
| QALY uden influenza                 | 0,88     |
| QALY-tab ved influenza              | 0,0055   |
| Ekstra tabt QALY ved hospitalsbesøg | 0,0035   |
| QALY tab ved vaccinstik             | 0,000415 |

Kilde: Bilcke et al.<sup>(11)</sup> & Evans et al.<sup>(14)</sup>.

Værdierne fra litteraturen vurderes at kunne anvendes på danske forhold, da de stammer fra lande, som Danmark normalt er sammenlignelige med.

| Aldersgruppe | Gennemsnitlig livskvalitet (QALY) |
|--------------|-----------------------------------|
| [0,2)        | 0,93                              |
| [2,6)        | 0,93                              |
| [6,15)       | 0,93                              |
| [15,45)      | 0,92                              |
| [45,65)      | 0,87                              |
| 65+          | 0,79                              |

Kilde: Olsen and Jørgensen<sup>(15)</sup>.



## Bilag 9 - Antal influenzatilfælde i forskellige scenarier

### Influenza i de forskellige scenarier 2020

| Aldersgruppe | Basis-scenariet | Cellebaseret 4-valent, +65 år | Adjuveret 3-valent, +65 år | Højddosis 3-valent, +65 år | Inaktiveret 4-valent, <2 år | Levende svækket 4-valent, 2-6 år | Sundhedspersonale |
|--------------|-----------------|-------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------|-------------------|
| [0,2)        | 8.732           | 8.729                         | 8.681                      | 8.722                      | 6.011                       | 4.424                            | 8.388             |
| [2,6)        | 54.635          | 54.621                        | 54.424                     | 54.596                     | 54.059                      | 23.039                           | 54.060            |
| [6,15)       | 52.428          | 52.398                        | 52.008                     | 52.349                     | 51.840                      | 26.802                           | 51.551            |
| [15,45)      | 338.720         | 338.611                       | 337.164                    | 338.427                    | 334.988                     | 176.923                          | 306.285           |
| [45,65)      | 84.170          | 84.121                        | 83.459                     | 84.036                     | 83.107                      | 44.795                           | 59.992            |
| 65+          | 44.061          | 43.254                        | 32.590                     | 41.890                     | 43.422                      | 23.319                           | 43.580            |
| Andre        | 0               | 0                             | 0                          | 0                          | 0                           | 0                                | 47.469            |
| I alt        | 582.746         | 581.733                       | 568.326                    | 580.020                    | 573.427                     | 299.302                          | 571.324           |

Bemærk, at der er udarbejdet en lidt anderledes basis-matrice for sundhedspersonalet, hvor disse er skilt ud under kategorien "Andre".

### Ændring i forhold til basis-scenariet i de forskellige scenarier 2020

| Aldersgruppe | Cellebase-ret 4-valent, +65 år | Adjuveret 3-valent, +65 år | Højddosis 3-valent, +65 år | Inaktiveret 4-valent, <2 år | Levende svækket 4-valent, 2-6 år | Sundhedspersonale |
|--------------|--------------------------------|----------------------------|----------------------------|-----------------------------|----------------------------------|-------------------|
| [0,2)        | 0,0%                           | -0,6%                      | -0,1%                      | -31,2%                      | -49,3%                           | -1,3%             |
| [2,6)        | 0,0%                           | -0,4%                      | -0,1%                      | -1,1%                       | -57,8%                           | -1,3%             |
| [6,15)       | -0,1%                          | -0,8%                      | -0,2%                      | -1,1%                       | -48,9%                           | -3,6%             |
| [15,45)      | 0,0%                           | -0,5%                      | -0,1%                      | -1,1%                       | -47,8%                           | -1,2%             |
| [45,65)      | -0,1%                          | -0,8%                      | -0,2%                      | -1,3%                       | -46,8%                           | -1,5%             |
| 65+          | -1,8%                          | -26,0%                     | -4,9%                      | -1,5%                       | -47,1%                           | -3,9%             |
| Andre        |                                |                            |                            |                             |                                  | -4,5%             |
| I alt        | -0,2%                          | -2,5%                      | -0,5%                      | -1,6%                       | -48,6%                           | -1,9%             |

Bemærk, at der er udarbejdet en lidt anderledes basis-matrice for sundhedspersonalet, hvor disse er skilt ud under kategorien "Andre". Værdierne i søjlen "Sundhedspersonale" er beregnet i forhold til denne.

**Sundhedsstyrelsen**  
Islands Brygge 67  
2300 København S

[www.sst.dk](http://www.sst.dk)

**Sundhed for alle** ♥ + ●