

# Health-seeking behaviour among newly arrived immigrants in Denmark

<b>Submission date</b> 03/04/2018	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 01/05/2018	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 30/07/2019	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Immigrants may face problems with accessing the Danish healthcare system due to, for example, lack of knowledge of how to navigate it, which may cause inappropriate healthcare-seeking. Danish municipalities provide a mandatory introduction and language programme for newly arrived immigrants, but no information on the healthcare system is offered. The aim of this study is to find out what effects information about the Danish healthcare system may have on the hypothetical healthcare-seeking behaviour of newly arrived immigrants, their actual healthcare use, their knowledge of the healthcare system and their satisfaction with the Danish healthcare system.

### Who can participate?

Adult immigrants attending two language schools in Copenhagen

### What does the study involve?

Participants are allocated to one of three groups to receive either a course of 12 hours on access to and optimal use of the Danish healthcare system; written information on the Danish healthcare system in their mother tongues; or no information (current situation). Participants are assessed on healthcare-seeking behaviour, true or false question on access to the Danish healthcare system, as well as satisfaction with the Danish healthcare system, and are linked with registry data on socioeconomic characteristics and healthcare use in the year to follow.

### What are the possible benefits and risks of participating?

There are no possible benefits of participating (answering the survey), but benefits related to participating in the intervention are increased knowledge about access to and navigating the Danish healthcare system. There are no risks of participating (answering the survey).

### Where is the study run from?

University of Copenhagen (Denmark)

### When is the study starting and how long is it expected to run for?

January 2012 to March 2016

Who is funding the study?  
1. Innovationsfonden (Denmark)  
2. Helsefonden (Denmark)

Who is the main contact?  
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## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

**Secondary identifying numbers**  
11-115843

## Study information

**Scientific Title**  
Health-seeking behaviour among newly arrived immigrants in Denmark

**Acronym**  
SULIM

**Study objectives**  
This study will address whether an intervention will affect health-seeking behaviour among immigrants in Denmark. The objectives are to compare the effect of 1) an introductory course dealing with access to and appropriate use of healthcare services as part of their mandatory

introduction course versus II) written information regarding the Danish healthcare system versus III) no information (the current situation) on newly arrived immigrants' health-seeking behaviour, including interpretation of symptoms; satisfaction with the healthcare system; knowledge and utilization of healthcare services.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

According to Danish law, no approval from an ethics committee is required when human tissue is not part of the research project. The Danish Data Protection Agency granted permission for the study. All potential participants received written information about the study (the information letter) underscoring study objectives, anonymity procedures, participants' rights to withdraw and that (non-)participation had no consequences for the individual. The intervention groups received further oral information from their teachers about the study where it was possible to ask questions. A person-encrypted database comprising both questionnaire and registry data to be used for the analyses was created by Statistics Denmark.

### **Study design**

Prospective non-randomised intervention study

### **Primary study design**

Interventional

### **Secondary study design**

Non randomised study

### **Study setting(s)**

School

### **Study type(s)**

Other

### **Participant information sheet**

Not available in web format, please use the contact details to request a patient information sheet

### **Health condition(s) or problem(s) studied**

Immigrants' healthcare-seeking behaviour

### **Interventions**

Immigrants are assigned to one of three groups who receive: a course of 12 hours on access to and optimal use of the Danish healthcare system; written information on the Danish healthcare system in their mother tongues; or no information (current situation). The intervention took place at Vestegnens Language and Competence School (VSK) which has two divisions, while the control group was formed by students at CBSI language school.

Survey data included three case vignettes on healthcare-seeking behaviour, true or false question on access to the Danish healthcare system, as well as satisfaction with the Danish

healthcare system and were linked to registry data on socioeconomic characteristics and healthcare use in the year to follow. The intervention lasted 12 lectures (1 week of school) and took place in January. The follow-up took place app. 3 months after (in April-June).

## **Intervention Type**

Other

## **Primary outcome measure**

1. Immigrants' healthcare-seeking behavior. To assess healthcare-seeking behaviour, three case vignettes with descriptions of persons with different healthcare needs at different times of the day were used: i) flu-like symptoms with a fever of 39.5°C (including sore throat and coughing); ii) chest pain; iii) major depression. The participants were asked to report on what they would do in the three cases by only choosing one of the following answer categories: a) talk to family and friends; b) go to pharmacy; c) call 112 (the Emergency Operations Centre); d) consult an out-of-hours-doctor; e) go to ER; f) contact GP; g) pray to God; h) nothing. To assess the "appropriateness" of service use, we applied an understanding of accessing healthcare services according to health need by the principle of using the lowest effective care level from the lens of a Western medicine oriented healthcare system. In the case of flu-like symptoms with relative high fever, where consulting a doctor may be appropriate but in most cases does not require emergency healthcare, the following actions were categorised as appropriate healthcare-seeking behaviour: consult out-of-hours-doctor and go to GP. Inappropriate healthcare-seeking behaviour was considered as: talk to family and friends, go to pharmacy, call 112, go to ER, pray to God and no actions. In the case of chest pain, where fast healthcare might be life-saving, the following actions were considered as appropriate healthcare-seeking behaviour: call 112, go to ER and go to GP. Inappropriate healthcare-seeking behaviour was considered as: talk to family and friends, go to pharmacy, consult out-of-hours-doctor, pray to God and no actions. In the case of major depression that requires healthcare or help to seek healthcare, the following actions were considered as appropriate healthcare-seeking behaviour: talk to family and friends, consult out-of-hours-doctor, go to ER and go to GP. Inappropriate healthcare-seeking behaviour was considered as: go to pharmacy, call 112, pray to God and no actions. The trialists also carried out sensitivity analyses for all three cases, where we added "pray to God" to the appropriate answer category as well as "talk to friends and family", "go to pharmacy", "pray to God" and "do nothing" for cases of flu-like symptoms. Timepoints: Measured at baseline and at follow-up (app. 3 months after).

2. Healthcare utilization. The healthcare services contacts assessed were as follows: ER (number of contacts), GP (number of contacts either telephone, email or in-person consultation), outpatient treatment at hospital (contact versus no contact), inpatient treatment at hospital (contact versus no contact), specialist doctor in private practice which needs referral from GP (contact versus no contact) and dentist (contact versus no contact). Timepoints: Utilisation of healthcare services was assessed by calculating the contacts to healthcare services a year prior to and the year after the intervention took place.

## **Secondary outcome measures**

1. Immigrants' knowledge. To assess whether the intervention affected self-perceived knowledge of the Danish healthcare systems, immigrants were asked: "In case of illness, do you know who to contact?" and "In case of an accident, do you know who to contact?". Potential responses included 'Yes, always,' 'Sometimes,' 'No,' 'Don't know'. We dichotomized the responses as "Yes, always" versus other. To assess whether the intervention affected actual knowledge of access to the Danish healthcare systems, immigrants were asked a number of positively and negatively formulated true and false questions e.g. "All children can receive several free

vaccines at their doctor” and “You are welcome to contact an out-of-office-hours doctor from 8 am until 4 pm. Also when your general practitioner (GP) is open”. Potential responses included ‘True,’ and ‘False’. The responses were assessed based on pre-determined right or wrong answers. Timepoints: Measured at baseline and at follow-up (app. 3 months after).

2. Patient satisfaction. To assess whether the intervention affected satisfaction with the Danish healthcare system, immigrants were asked questions on satisfaction with their GP, specialist doctors in private practice and hospital doctors as well as whether Danish doctors are good at helping you when you are ill. E.g. “Are doctors at hospitals good in Denmark?”. Potential responses included ‘Yes, very good,’ ‘They are okay,’ ‘No, they are poor,’ ‘I have never been at the hospital,’ ‘Don’t know’. The trialists dichotomized the responses as “Yes, very good” versus other. Missing categories included ‘I have never been at the hospital,’ ‘Don’t know’. Timepoints: Measured at baseline and at follow-up (app. 3 months after).

### **Overall study start date**

01/01/2012

### **Completion date**

31/03/2016

## **Eligibility**

### **Key inclusion criteria**

The study population consisted of adult immigrants attending two language schools, CBSI and Vestegnens Language and Competence School, in the greater catchment area of Copenhagen in 2012 and 2013. To be eligible for the study, the immigrants had to have basic understanding of Danish (for this reason we omitted students from module 1) which also implies that the immigrants have lived in Denmark for some time and have had some experience with the Danish healthcare system. The trialists used Statistics Denmark’s definition of an immigrant as a person who is born in a foreign country of parents who both are foreign citizens or born in a foreign country. The participants represent the mixture of migrants in Denmark: labour migrants, family reunified and refugees with different educational backgrounds and countries of birth.

### **Participant type(s)**

All

### **Age group**

Adult

### **Sex**

Both

### **Target number of participants**

1572

### **Total final enrolment**

1572

### **Key exclusion criteria**

Immigrants at module 1 at Danish language school (not sufficient Danish skills) and at module 6 (preparing for final Danish exam)

**Date of first enrolment**

15/01/2012

**Date of final enrolment**

01/06/2013

## **Locations**

**Countries of recruitment**

Denmark

**Study participating centre**

University of Copenhagen, Department of Public Health

Oster Farimagsgade 5A

Copenhagen K

Denmark

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## **Sponsor information**

**Organisation**

Innovation Fund Denmark

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**Sponsor type**

Research council

**Website**

<https://innovationsfonden.dk/da/page/om-fonden>

**Organisation**

Helsefonden

**Sponsor details**

Otto Mønstedts Gade 5  
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info@helsefonden.dk

**Sponsor type**

Other

**Website**

<http://www.helsefonden.dk/pages.asp?id=23>

**Organisation**

Innovation Fund Denmark

**Sponsor details****Sponsor type**

Not defined

**Website**

<http://innovationsfonden.dk/en>

**ROR**

<https://ror.org/00daj4111>

**Funder(s)****Funder type**

Government

**Funder Name**

Innovationsfonden

**Alternative Name(s)**

Innovation Fund Denmark, Innovation Fund, IFD

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**  
Denmark

**Funder Name**  
Helsefonden

**Alternative Name(s)**  
Health Foundation

**Funding Body Type**  
Private sector organisation

**Funding Body Subtype**  
Trusts, charities, foundations (both public and private)

**Location**  
Denmark

## Results and Publications

### Publication and dissemination plan

To be published:

Jervelund SS, Maltesen T, Wimmelmann CL, Petersen JH, Krasnik A. Know where to go: Evidence from a controlled trial of a healthcare system information intervention among immigrants. (In review, estimated publication date: Fall 2018)

Zapata MP, Krasnik A, Rosthøj S, Jervelund SS. Cross-border Health Services Utilization and the Role of Trust in the Danish Healthcare System among immigrants in Denmark: a combined survey and registry study. (In review, estimated publication date: Fall 2018)

**Intention to publish date**  
01/09/2018

### Individual participant data (IPD) sharing plan

A person-encrypted database comprising both questionnaire and registry data was created by Statistics Denmark which is also the data holder. Only research institutions and the like who has an official agreement with Statistics Denmark can access data. According to Danish law, when the data permission from the Danish Data Protection Agency has expired, data has to be deleted. When the trialists have completed the planned analyses and publications, they will follow Danish law and delete data; thus, the dataset will not be made available to others.

### IPD sharing plan summary

Not expected to be made available

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
	results				



<a href="#">Results article</a>		03/11/2015		Yes	No
<a href="#">Results article</a>	results	01/03/2017		Yes	No
<a href="#">Results article</a>	results	11/12/2017		Yes	No
<a href="#">Results article</a>	results	11/07/2018	30/07/2019	Yes	No