

School-based educational and on-site vaccination among adolescents

Submission date 01/12/2017	Recruitment status No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 05/12/2017	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 25/10/2022	Condition category Infections and Infestations	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Despite childhood vaccination programs have been established in many countries around the world, MMR vaccine (Measles-Mumps-Rubella) as well as diphtheria, tetanus, pertussis (whooping cough), and polio rates are not optimal in adolescents. Sometimes vaccinations can be done directly at schools. The "prevention bus" is the first mobile medical practice in Germany and could potentially improve vaccination rates in adolescents. The study aims to improve vaccination rates in adolescents with a combination of school-based education classes and on-site vaccination in the "prevention bus" on-site at school.

Who can participate?

Schools in the city center of Berlin, Germany with classes 9 to 11 (students aged 15 and older)

What does the study involve?

Schools are randomly allocated to one of two groups. Those in the first group receive an educational class. Those in the second group receive low-intensity information. In both conditions, the "prevention bus" is delivering vaccine for MMR, diphtheria, tetanus, pertussis, and polio after information or education is delivered by medical staff. Parents are informed in advance and consent is obtained. The effectiveness of the education is primarily assessed by the difference between conditions in the number of pupils who receive vaccination in the bus. Further, differences in vaccination-related knowledge and beliefs are measured. A minimum number of 355 school classes is required to determine effectiveness.

What are the possible benefits and risks of participating?

Potential benefits of this study include the provision of an effective and cost-effective vaccination treatment, which may increase vaccination rates at scale. Further, the educational class may be the basis for a future health and prevention course in German schools. Risks associated with participating in this study are not expected. A reaction to the vaccine given by our physicians is the pre percentage range. Complications (temporarily in need of medical supervision) due to the vaccine is in the per thousand range. Following recommendations by STIKO (vaccination committee at Robert Koch Institut, Germany, Berlin) participants only get vaccinated after receiving medical information on vaccine reaction and possible complications.

Where is the study run from?
Charité - Universitätsmedizin Berlin (Germany)

When is the study starting and how long is it expected to run for?
June 2017 to August 2018

Who is funding the study?
Federal Ministry of Health (BMG) (Germany)

Who is the main contact?
Dr Joachim Seybold (Public)
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Contact information

Type(s)
Public

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Additional identifiers

Protocol serial number
1503/53105

Study information

Scientific Title
School-based educational and on-site vaccination intervention for the prevention of MMR and Tdap-IPV among adolescents

Acronym
PREV-BUS

Study objectives
The primary hypothesis tests whether the willingness to participate in on-the-spot vaccinations can be increased in the educational class condition compared to the low-intensity information provision condition. In secondary hypotheses, the group differences in knowledge and vaccination self-efficacy will be tested. Further, post hoc subgroup analyses of the intervention effectiveness will be conducted, e.g., by gender, migration status and socioeconomic

background, and type of school. With the prevention bus as an intervention strategy, barriers are identified (feasibility) in the context of the prevention work, to increase the immunization rates at Berlin schools.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics committee of the Charité Berlin, 10/08/2017, ref: EA1/059/17

Study design

Cluster randomized controlled trial (cRCT)

Primary study design

Interventional

Study type(s)

Prevention

Health condition(s) or problem(s) studied

MMR vaccine (Measles, Mumps, Rubella)

Tdap-IPV vaccine (Tetanus, Diphtheria, Pertussis, Polio)

Interventions

The Prevention Bus will be at each school for approximately one week. Giving all students the possibility to get information and/or vaccination if needed. Besides that, there is an intervention at the classes from 9th to 11th grade (15 years onwards) in high schools and for all apprentices in their teaching facilities. The intervention in schools is held by doctors and nurses and will either be an educational class condition or a low-intensity information condition based on the randomisation. The low-intensity information condition includes an anonymous questionnaire on sociodemographic background and knowledge regarding vaccination. Furthermore, the check of the vaccination card and a guided tour through the Prevention Bus is part of the intervention. In addition to the anonymous questionnaire and the check of the vaccination card, the educational class condition includes a 30 minute class on knowledge, risk communication and enhancing self-efficacy regarding vaccination.

Intervention Type

Biological/Vaccine

Primary outcome(s)

Vaccination rate is objectively measured through the number of pupils that get vaccinated, directly after receiving treatment (educational class condition, low-intensity information condition) when pupils visit the Prevention Bus. The primary outcome will be weighted by the number of pupils who are eligible to take part in the study.

Key secondary outcome(s)

1. Health literacy is measured using five items of the HLS-EU Q47 questionnaire addressing prevention and immunization treatment (educational class condition, low intensity information condition) but before pupils visit the bus while they are still in their class room.
2. Health knowledge is measured with six previously developed immunization knowledge items, which psychometric properties were tested in our pilot study after treatment (educational class

condition, low intensity information condition) but before pupils visit the bus while they are still in their class room.

Completion date

31/08/2018

Eligibility

Key inclusion criteria

School level:

1. Centric boroughs within circle line ("Ringbahn" - public Transport Berlin)
2. Summed minimum number of pupils in potential School classes: 230

Participant level:

1. Age (>15 years)
2. Signed informed consent by the parents

Participant type(s)

Mixed

Healthy volunteers allowed

No

Age group

Child

Lower age limit

15 years

Sex

All

Key exclusion criteria

Under 15 years of age

Date of first enrolment

08/12/2017

Date of final enrolment

14/07/2018

Locations

Countries of recruitment

Germany

Study participating centre

Charité - Universitätsmedizin Berlin
Charitéplatz 1
Berlin
Germany
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Sponsor information

Organisation

Federal Ministry of Health (BMG)

ROR

<https://ror.org/05vp4ka74>

Funder(s)

Funder type

Government

Funder Name

Bundesministerium für Gesundheit

Alternative Name(s)

Federal Ministry of Health, Germany, Federal Ministry of Health, BMG

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

Germany

Results and Publications

Individual participant data (IPD) sharing plan

For further questions regarding the data please contact Joachim.seybold@charite.de (principle investigator) and norma.bethke@charite.de (study coordinator).

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol article	protocol	29/01/2019	24/02/2020	Yes	No
Interim results article	pilot study results	10/01/2022	25/10/2022	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes