WHO HEALTH IN PRISONS PROJECT (WHO HIPP)

BEST PRACTICE AWARDS 2011

APPLICATION FORM

Before filling in the form please visit the web site of the Collaborating Centre of the Health in Prisons Project (which is hosted by the University of Central Lancashire) at the following web address, where you will find useful background information on the award and further information for completing the form: http://www.uclan.ac.uk/schools/school_of_health/research_projects/hsdu/wcc.php

When completed please return the form electronically to your WHO Health in Prisons Project National Counterpart for consideration. The decision to forward applications to the International Judging Panel rests with your National Counterpart. If you have any questions when completing this form, please email them to paul.hayton@dh.gsi.gov.uk.

DEADLINE: The deadline to return your application forms to your national counterpart is Friday the 27th May at 5pm.

Please indicate the category (you may choose only one) for your application, by typing an X in the box against the correct category

- **Category 1:** an example of best practice regarding health care services provided to prisoners. This category includes any aspect of the clinical care provided to prisoners by doctors, nurses or other healthcare professionals.

- **Category 2:** an example of best practice regarding any of the following, or a combination of the following: prevention, health education or health promotion services provided to prisoners. For example, members of staff (not necessarily medically trained staff) working within the prison might provide the service, or it may involve peer education i.e. using specially trained prisoners.

- **Category 3:** an example of best practice which demonstrates effective cooperation between a prison and the outside community, in the area of health improvement. This category includes any aspect of improving the health and well being of prisoners.

**BACKGROUND INFORMATION**

Title of your piece of work:

Improvement of measles immunity among migrant populations: lessons learned from a prevalence study in a Swiss prison.

Contact details of the person in the prison managing the application:
Champ-Dollon in Geneva is the Switzerland's largest and most overcrowded (Occupation rate: 183% in 2010) pre-trial prison accommodating 540 prisoners, 243 prison officers and 37 health care workers.

PURPOSE OF THE WORK

1. What is the aim or general objective of your initiative or piece of work (in just one sentence please)?

We aimed to estimate the susceptibility to measles and its risk factors among inmates in the largest Swiss pre-trial prison in order to estimate the risk of measles outbreaks and develop policies and guidelines for health services in prisons.

2. What are the main characteristics of the target group(s)?
   - Is it targeted at all prisoners, or a particular group or groups? eg. a particular age group or particular demographic.
   - Are others being targeted by the project? E.g. staff involvement or involvement of families.
   - What is the coverage of the work? E.g. how many persons are being reached?

116 inmates were included in the study

Results obtained from this sample improve the primary and secondary prevention of measles according to origin and age not only in Champ-Dollon prison were about 3,000 inmates are incarcerated each year, but these results also apply to all prisons in Western Europe characterized by a population mainly of migrants.

3. Why this initiative is important?
   - What is/are the health need/s you are addressing?
   - Has there been any form of needs assessment undertaken?
   - Were you drawing upon any evidence or research to inform the piece of work? If yes please briefly refer to it here. (recherche de literature faite, basé sur évidence? Oui, et non seulement faite, mais aussi nous démontrons nos
Measles is a highly contagious viral disease: attack rate in susceptible exposed individuals is 75%. Complications are more frequent if infection occurs during adulthood, leading to serious debilitation and even death. In 1998 the World Health Organisation’s member states adopted the goal of eradicating measles in Europe by 2010. However measles still persists on this continent despite the intensification of general vaccination campaigns. Countries in the WHO European Region continue to fight large measles outbreaks, which continue to spread between countries and to other regions of the world. In 2011, Denmark, Germany, the Netherlands, Norway, Serbia, Switzerland, Turkey, Russian federation, Bulgaria and the former Yugoslav Republic of Macedonia have reported measles outbreaks. Vaccinations must reach the entire population, but especially those most vulnerable and susceptible, which include the migrants detained. Efforts to improve immunity rates within the migrant populations not only limit the risk of outbreaks within closed institutions, but also help in protecting the community outside the prison.

4. What did you set out to achieve, and how successful were you? Please list your specific objectives in order of importance, and any indicators used to help you measure progress. (NOTE any evaluation should refer back to these objectives and indicators, indicating progress towards meeting them.)

In Western Europe (including Switzerland), vaccination campaigns against measles were implemented in the 1960s. Before the 60s, the transmission of wild virus was so important that outbreaks were constant: all children contracted the disease and were immune to adulthood. After implementation of mass vaccination campaigns, herd immunity limited the spread of the virus and high proportion of unvaccinated people remained susceptible. Mass vaccination campaigns were implemented later in developing countries. For example in sub-Saharan Africa large-scale vaccination campaigns were generally ineffective until the turn of the 21st century; in North Africa and the Balkans, vaccination coverage rates were below 90% for the first dose of measles until the mid-1980s. The study confirmed our hypothesis: the susceptibility of individuals is based on the periods of implementation of vaccination campaigns in their countries of origin. An improvement of the guidelines of the measles vaccination in prison ensues from this observation.
5. **Who was involved, and what was the time frame?**  
Please describe:
- Those involved in the delivery of the initiative. Give names, job titles and the employer of key people involved.
- Any prisoner involvement in the planning or delivery of the work.
- The time frame: When did the work commence? What did you do and when? Is there a finish date known yet?

In April 2009, the opportunity to investigate the susceptibility to measles was taken when all prisoners in contact with an index case of chickenpox, regardless of their origin or other criteria, had a blood test. The principal investigators were Dr Laurent Gétaz and Dr Hans Wolff (Division of Primary Care Medicine, Department of Community Medicine, Primary Care and Emergency Medicine, University Hospitals of Geneva, Switzerland). The medical staff and nurses’ team of the medical unit of the prison collaborated on the project, with an active collaboration of the prison officers.

6. **Was there an evaluation?**  If yes please detail findings (no more than 300 words).

You may want to consider:
- Formative or **process evaluation**, concerning the quality and acceptability of your **programme’s implementation** with the target group.
- Summative evaluation: what were the **outcomes and impacts** in relation to your Specific Objectives and indicators as listed above.

Measles IgG antibody titers were measured by enzyme-linked fluorescent assay (Vidas, BioMérieux). A structured questionnaire was used to collect self-reported information on socio-demographic characteristics (Nationality? Place of main schooling? In which year did you arrive on the Western European Continent / in Switzerland?) and questions related to history of measles and vaccination (Have you ever been infected by measles? Are you vaccinated against measles?).

7. Please provide us with an **abstract** of your project. Tell us in your own words about your piece of work or initiative and why it is important (no more than 500 words):

**Abstract**

**Background**

Measles persists worldwide despite the implementation of general vaccination campaigns. The environmental and demographic characteristics in many prisons increase the risk of measles epidemics. An important proportion of
inmates come from countries where immunization coverage is low. We aimed to estimate the susceptibility to measles among prisoners in order to implement preventive measures.

Methods
A serology screening for measles was carried out among 116 inmates in Switzerland's largest pre-trial prison. Socio-demographic characteristics were collected through a structured questionnaire. Risk factors for lack of measles immunity were examined.

Results
Seven of 116 (6%) inmates were not immune to measles. All 37 inmates from sub-Saharan Africa were immune. Considering only people native from regions other than sub-Saharan Africa, 7 of 40 inmates born after 1981 were susceptible (18.5%), whereas none of the 39 inmates born in 1981 or before were susceptible (p=0.006).

Conclusion
Susceptibility to measles is fairly low in this prison population composed mainly of migrants. Living in sub-Saharan Africa during childhood and birth before 1982 are protective factors associated with the presence of immunity against measles. The heterogeneity of vaccination campaigns in the various regions of the world, particularly in terms of timing of their introduction and scale of diffusion, explains epidemiological variability. Targeted vaccination in accordance to the origin and age would offer excellent herd immunity and would substantially reduce risks of outbreaks as well as costs.

Why it is important
If indications for vaccination against measles target people according to their origin (primary and secondary prevention), a significant proportion of persons already immune are not vaccinated. For example in our prison, our adapted guidelines propose a 65% reduction of measles vaccination indications compared to the Swiss guidelines applicable to the general population. Therefore, resources may be more efficiently used. This is particularly important in secondary prevention: when an outbreak occurs in a prison, a short delay between the warning and the injection of the vaccine is critical. For example in our prison, the delay is drastically shortened for logistical reasons when 200 people are vaccinated instead of 600.
8. Finally, what are the most important specific learning points from your piece of work that you would like to share with others working with prisoners? What can others learn from your project? (no more than 500 words)

The origin of a person is an important factor to consider in institutions such as prisons where the majority of inmates come from countries outside Western Europe. Depending on the region of the world, we demonstrated differences among age groups due to heterogeneity in the implementation of vaccination campaigns, particularly in terms of timing of introduction and level of vaccine uptake.

Figure: measles susceptibility according to the origin and the age in a pre-trial prison, 2009, Geneva, Switzerland.

116 inmates selected

116 included

Yes □ Sub-saharan origin  □ No

37 inmates
Susceptibility*: 0/37 (0%)

79 inmates
Susceptibility*: 7/79 (9%)

Yes □ Born before 1982  □ No

39 inmates
Susceptibility*: 0/39 (0%)

40 inmates
Susceptibility*: 7/40 (17.5%**)

* Proportion of inmates susceptible to measles

**Susceptibility (born after 1981)
North Africa: 3/14 (21%)
Eastern Europe: 3/19 (16%)
Western Europe: 1/4 (25%)