Safe sharps waste collection and management in Uzbekistan

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Background

1. High risk of parenteral transmission of HIV and viral hepatitis in Uzbekistan
2. Unsafe injection practice and out of date injection technologies.
3. Poor knowledge on bloodborne pathogens among health workers and general population.
Unsafe injection practice

- Unnecessary manipulations with needles
  - Recapping before and after injection
  - Bending of needles
  - Handling collected sharps
  - Washing and rinsing needles
Inappropriate waste management
Samarkand pilot project

Supported by SDC and WHO.
Duration of the project – over 1 year (February 2001 – May 2002)
Intervention site - Samarkand city
4 policlinics involved in the intervention
De Monford incenerator has been constructed
Project steps

- Assessment
- Intervention
- Final assessment
OT8 indicator
(curative injection use)

Definition of OT8

\[
OT8 = \frac{\text{number of prescriptions with at least one injection}}{\text{total amount of prescription lists surveyed}}
\]

OT8 in actual survey in Uzbekistan: \(\frac{56}{107} = 52\%\) (February 2001)

Conclusion: more than half of the patients presenting in an ambulatory primary health care setting are treated with at least one injection
Proportion of prescriptions including injections: Improved prescriptions in the intervention polyclinics

OT8 indicator (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Control</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>N=103</td>
<td>N=98</td>
</tr>
<tr>
<td>2002</td>
<td>N=102</td>
<td></td>
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</tbody>
</table>
Injections with safe sharps collection and disposal: Improvements in Samarkand

- **Control (2001)**: N=25
- **Intervention (2002)**: N=19

Proportion (%)

- 0%
- 20%
- 40%
- 60%
- 80%
- 100%

N=9

Year:
- 2001
- 2002
Annual number of needlestick injuries per injection provider: Improvements in Samarkand

<table>
<thead>
<tr>
<th>Year</th>
<th>Control (N=19)</th>
<th>Intervention (N=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>0.5</td>
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De Monford incinerator

SDC financed the construction of an incinerator for four pilot health care settings.
Safe immunization program, UNICEF, 2002

Program sites – Karakalpakistan republic, Khorezm region.
Steps of implementation

- Preparation of training materials for educational modules
- Initial assessment of the injection practice in the these regions
- Training
  - Health care workers (injection prescribes and injection providers)
  - General population
- Constructing of 40 Monford incinerators (20 per each region)
- Final assessment
Training materials

- A manual for doctors
- A manual for nurses
- Three posters for HCWs and
- One posters for general population
Poster for nurses on safe immunization steps
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Тегманг

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Recapping Karakalpakistan and Khorezm region

November 2002

May 2002

recapping
no recapping
Safe injection practice

- Май: 60%
- Ноябрь: 100%
OT8 indicator

Proportion (%)

No injection  At least one injection

November  March
Conclusion

- Pilot programs demonstrate that the safe injection and safe disposal tool can be effectively implemented in Uzbekistan Health Care System, which will dramatically decrease the risk of transmission of bloodborn pathogens.
- The Safe Injection practice may minimize financial expenses per treatment course.