STEMMING THE SUPERBUG TIDE IN SWEDEN

Resistance proportions for eight antibiotic-bacterium pairs in Sweden have slightly increased in recent years, from 5% in 2005 to 5.5% in 2015, and could go up to 6.5% by 2030, should current trends in antibiotic consumption, population and economic growth continue into the future. Resistance proportions in Sweden were markedly lower than the OECD average in 2015 (17%).

Average proportion of infections caused by bacteria resistant to antimicrobial treatment for eight priority antibiotic-bacterium combinations

Deaths per 100 000 people

- Italy
- Greece
- Portugal
- United States
- France
- Cyprus
- Slovak Republic
- Malta
- Romania
- Poland
- Croatia
- Hungary
- Ireland
- Belgium
- OECD
- Slovenia
- Czech Republic
- Spain
- Austria
- Germany
- Latvia
- Denmark
- Finland
- Sweden
- Estonia
- Norway
- Netherlands
- Australia
- Canada
- Iceland

Annual cost per 100 000 people (thousand USD)

- By 2050, health care costs in Sweden could reach $223 million.

Notes:
- All costs are expressed in United State dollar purchasing power parity (PPP), which eliminates the differences in price levels between countries. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law. Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”. Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: Stemming the Superbug Tide: Just a Few Dollars More, OECD (2018). Available at: oecd.amr-2018
1. National AMR action plan

Sweden has a multi-sectoral plan that reflects Global Action Plan objectives, with an operational plan and monitoring arrangements, going beyond what most OECD countries are doing in this area.

2. Stewardship programmes

An antimicrobial stewardship programme is implemented nationwide and data on use is systematically fed back to prescribers, going beyond what most OECD countries are doing in this area.

3. Awareness campaigns

Nationwide awareness-raising campaigns implemented along with monitoring mechanisms, in line with what most OECD countries are doing in this area.

4. Education and training

AMR is incorporated in curricula and continuing medical education for all relevant health cadres, in line with what most OECD countries are doing in this area.

1 – least developed; 5 – most developed; diamonds indicate OECD mode; country scores in dark blue.

A broad policy package combining stewardship programmes, enhanced environmental hygiene, mass media campaigns, and rapid diagnostic testing could avert 150 deaths and save 9 million dollars per year in Sweden

<table>
<thead>
<tr>
<th>Measure</th>
<th>Lives saved per year</th>
<th>Costs per year (million)</th>
<th>Return per dollar invested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving hand hygiene</td>
<td>107</td>
<td>-4.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Stewardship programmes</td>
<td>100</td>
<td>-1.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Enhanced environmental hygiene</td>
<td>101</td>
<td>-5.1</td>
<td>1</td>
</tr>
<tr>
<td>Delayed antimicrobial prescribing</td>
<td>42</td>
<td>0.07</td>
<td>0.8</td>
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<tr>
<td>Mass media campaigns</td>
<td>30</td>
<td>0.02</td>
<td>0.7</td>
</tr>
<tr>
<td>Rapid diagnostic tests</td>
<td>56</td>
<td>2.2</td>
<td>-0.3</td>
</tr>
</tbody>
</table>

Results from the OECD SPHeP-AMR model