Meetings to prepare the 7th MSP in Addis Ababa, Ethiopia, 8 to 12 May 2016,

Action network update September 9\textsuperscript{th} GASL MSP 2019 at KSU
Antimicrobial resistance relates to several SDGs
The Livstock sector is very diverse
The access and quality issue.....

The access to antibiotics varies a lot for farmers around the world and sometimes within a country. In several settings, it is the access to antibiotics, especially of good quality, that is the challenge.

For instance, the market in Africa for substandard and non-registered veterinary medicines is estimated to be 400 MUSD (Kingsley, 2015)
The prescription issue....

<table>
<thead>
<tr>
<th>World Bank income group</th>
<th>Yes, in all cases</th>
<th>Yes, in some cases</th>
<th>No</th>
<th>No of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>High income</td>
<td>42 %</td>
<td>42 %</td>
<td>17 %</td>
<td>12</td>
</tr>
<tr>
<td>Low income</td>
<td>9 %</td>
<td>45 %</td>
<td>45 %</td>
<td>11</td>
</tr>
<tr>
<td>Lower middle income</td>
<td>20 %</td>
<td>45 %</td>
<td>35 %</td>
<td>20</td>
</tr>
<tr>
<td>Upper middle income</td>
<td>48 %</td>
<td>26 %</td>
<td>26 %</td>
<td>27</td>
</tr>
</tbody>
</table>

Data from 70 non-EU countries
European Commission, 2017
The selling issue....

Also, in several countries a large, sometimes the major, proportion of the income for physicians and veterinarians comes from sales of antibiotics and other pharmaceuticals. Perverted incentive?
The selling issue....

Also, in several countries a large, sometimes the major, proportion of the income for physicians and veterinarians comes from sales of antibiotics and other pharmaceuticals. Perverted incentive?

On this map, the lighter-coloured countries in the north of Europe are the lowest consumers of antibiotics in relation to the biomass (< 50 mg/kg). The darker-coloured countries are the highest consumers. No data were available for the countries in purple or grey. Icons show whether medicines are mainly dispensed by veterinarians or pharmacists:

- : veterinary medicines are (nearly) exclusively dispensed by pharmacies;
- : veterinary medicines are (nearly) exclusively dispensed by veterinarians;
- : pharmacists and veterinarians hold comparable market shares.

Sources: ESVAC 2013; Semaine Vétérinaire special issue n°1565 and 1566 (20-27 December 2013).

FVE, 2015
The livestock sector is a large user of antibiotics

*Fig. S9*. Antimicrobial consumption for food animal production by country, in 2013 (light red) and projected for 2030 (dark red). Van Boeckel et al., 2017
For the sake of animal health and productivity
The livestock - human connection
“Interventions that restrict antibiotic use in food-producing animals are associated with a reduction in the presence of antibiotic-resistant bacteria in these animals. A smaller body of evidence suggests a similar association in the studied human populations, particularly those with direct exposure to food-producing animals. The implications for the general human population are less clear, given the low number of studies.” Tang et al., 2017
The livestock sectors’ position or action

More evidence?

Regulations?

Precautionary?

Response to the market?

The LAMP approach:

“Creating common ground for common good – addressing antimicrobial resistance by supporting healthy and productive livestock”
Our modus operandi

LAMP - Livestock AntiMicrobial Partnership

- Sharing practices
- Collecting practices
- Analyzing and synthesizing practices
- Testing and piloting practices

ACTION!

http://www.slu.se/LAMP

#LivestockAgenda
Animal health management – disease prevention is key

Good animal husbandry forms the basis of disease prevention, effective biosecurity act as a broad-range filer of infectious agents and vaccinations target specific pathogens.
Our first »Good Practises»

#LivestockAgenda
Key messages from «Good paractices» version 1.0

- In low-income countries the access to animal health service an quality pharmaceuticals are identified as a major challenge.
- The majority of the practises submitted to LAMP are from producers’ organisations.
- Where a reduction in use of antibiotics has been implemented by applying these practises, it is indicated that the profit of the production is not severely affected.
- However, combined and good records of antibiotic use, antibiotic resistance, animal health and productivity are rare.
- Thus, the “good” of practices are sometimes lacking evidence from the field.
An example from the Dairy sector

<table>
<thead>
<tr>
<th>Trait (Swedish national data)</th>
<th>1989</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales of Ab mg/PCU (all farm animals)</td>
<td>32</td>
<td>12 *</td>
</tr>
<tr>
<td>Resistance (Pencillinase+ Staph. A.)</td>
<td>8-10%</td>
<td>2%</td>
</tr>
<tr>
<td>Incidence treated mastitis</td>
<td>25% **</td>
<td>7%</td>
</tr>
<tr>
<td>ECM Kg Milk/cow/year</td>
<td>7 500</td>
<td>10 250</td>
</tr>
</tbody>
</table>

* 2016, **2004

1. SWEDRES SVARM 2018 | [https://www.folkhalsomyndigheten.se/contentassets/d8f6b3d187a94682a1d50a48f0a4fb3d/swedres-svarm-2018.pdf](https://www.folkhalsomyndigheten.se/contentassets/d8f6b3d187a94682a1d50a48f0a4fb3d/swedres-svarm-2018.pdf)
4. SCB Cattle Statistics in Sweden 1989 & 2018; [www.sjv.se](http://www.sjv.se)
In conclusion...

- There are practices in most (all?) subsectors of the Livestock world that manage to combine low use of antibiotics with high biological productivity.

- For low-income countries “the AMR-issues” is an opportunity to sharpen animal health management.

- What about the profit? Depends on:
  - Policies/regulations
  - Consumers’ demand
  - Tariffs, import/export
  - ……………?

Thanks for your attention!

http://www.slu.se/LAMP