Food and Agriculture Organization of the United Nations

World Organisation for Animal Health
Founded as OIE

Feedback on FMD vaccine and vaccination questionnaire

The Middle East Foot-and-Mouth Disease Roadmap meeting

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On behalf of the GF-TADs FMD Working Group

GF-TADs
GLOBAL FRAMEWORK FOR THE PROGRESSIVE CONTROL OF TRANSBOUNDARY ANIMAL DISEASES

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Summary

- **Nine countries sent their questionnaire**
  - Generally similar answers
- **Species vaccinated**
  - All countries vaccinate cattle and small ruminants
  - Kuwait reported limited swine vaccination
  - Egypt specified that they vaccinate buffalo

Vaccine strategies - cattle

- **Seven countries practice mass vaccination for cattle**
  - Two countries reported targeted vaccination
  - Vaccination is prioritised for dairy cattle
  - 6 countries vaccinate every six months (range 4-12 months)
- **Seven countries described emergency vaccination in cattle**
  - Radius described as either 3 or 10km
  - No countries only practice emergency vaccination
- **Five countries vaccinate cattle on request of the owner**

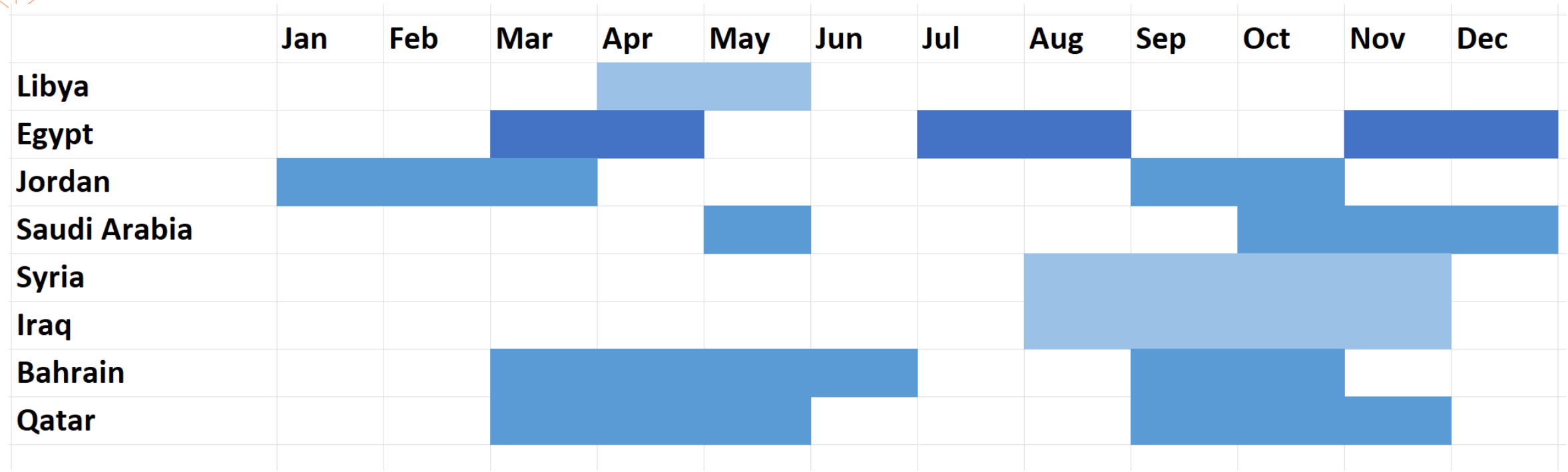
Vaccine strategies – small ruminants

- **Seven countries practice mass vaccination for small ruminants**
  - Two countries reported targeted vaccination
  - Vaccination is prioritised for dairy animals or those in the region of dairy cattle
  - 3 countries vaccinate every six months (range 4-12 months)
- **Four countries described emergency vaccination in cattle**
  - Radius described as either 3 or 10km
  - No countries only practice emergency vaccination
- **Three countries vaccinate small ruminants on request of the owner**

Vaccine strategies

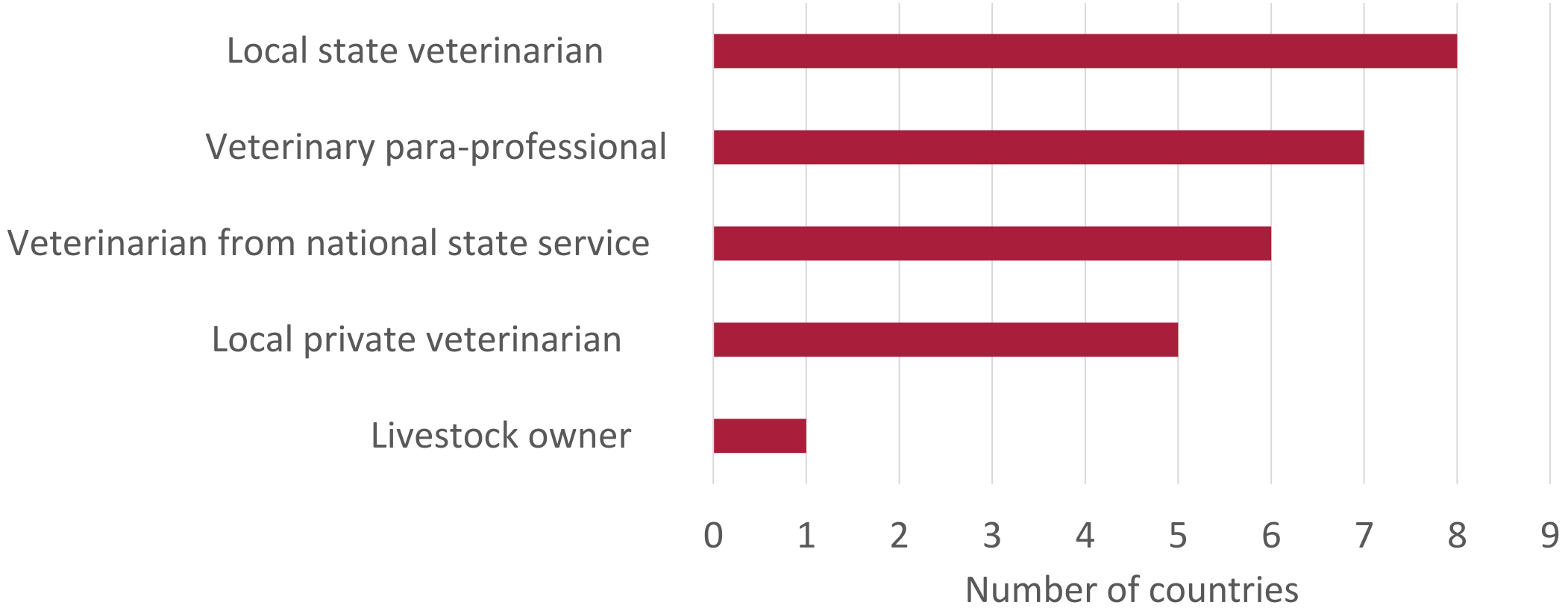
- **Very difficult to assess vaccine coverage**
  - In 2024 reported as:
    - 55% to 100% for cattle (median 81%)
    - 20% to 101% for small ruminants (median 40%)

Vaccine schedule



No countries consult with their neighbours about vaccination scheduling

Who administers FMD vaccines?



Who pays?

- 6 countries provide FMD vaccines free of charge to livestock owners
- 3 countries have a system vaccine cost is subsidised to some extent
- 5 countries stated that there were inadequate public funds available for their FMD control programme
- 2 countries indicated funds from international donors had been used to purchase vaccines (in both cases covering 100% costs)
- 2 countries stated that there was some form of public private partnership, or at least private involvement in providing FMD vaccines

Which vaccines are used?

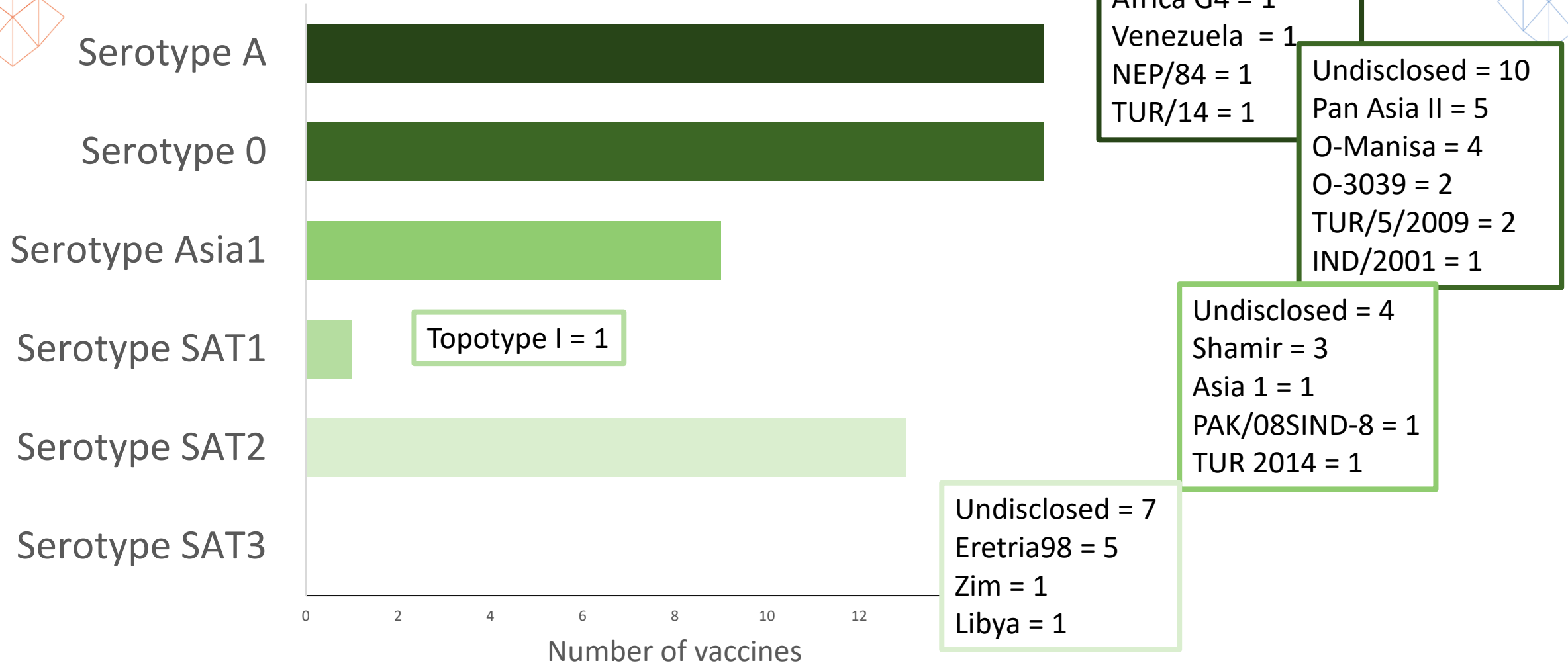
- Vetal (2 countries)
- AftovaxPur (4 countries)
- Arriah (3 countries)
- Bioaftogem (2 countries)
- Servac (1 countries)
- Teytravalan (1 countries)
- Undisclosed (3 countries)

All vaccines 6PD50 except one 3PD50

7 countries described using one vaccine:

- Jordan used three
- Syria used four

Which serotypes are covered



Undisclosed = 10;
IRAN/05 = 6
Asia G-VII = 3
TUR/06 = 1
Africa G4 = 1
Venezuela = 1
NEP/84 = 1
TUR/14 = 1

Undisclosed = 10
Pan Asia II = 5
O-Manisa = 4
O-3039 = 2
TUR/5/2009 = 2
IND/2001 = 1

Topotype I = 1

Undisclosed = 4
Shamir = 3
Asia 1 = 1
PAK/08SIND-8 = 1
TUR 2014 = 1

Undisclosed = 7
Eretria98 = 5
Zim = 1
Libya = 1

Towards FMD serotype C global eradication

"As serotype C has not been detected globally since 2004, efforts are underway to estimate the confidence that it is extinct and understand the risk of re-introduction of this serotype"

- One country reported that serotype C was included in a vaccines registered (not used) nationally
- No countries confirmed they maintained live serotype C stocks for research, diagnosis or vaccine manufacturing purposes

Laboratory capacity

- All countries stated they had national laboratory capacity for FMD diagnosis
- Six described sending samples to at least one laboratory outside their country
  - WRL (4)
  - IZLER (3)
  - JUST (1)
  - ATAA (1)

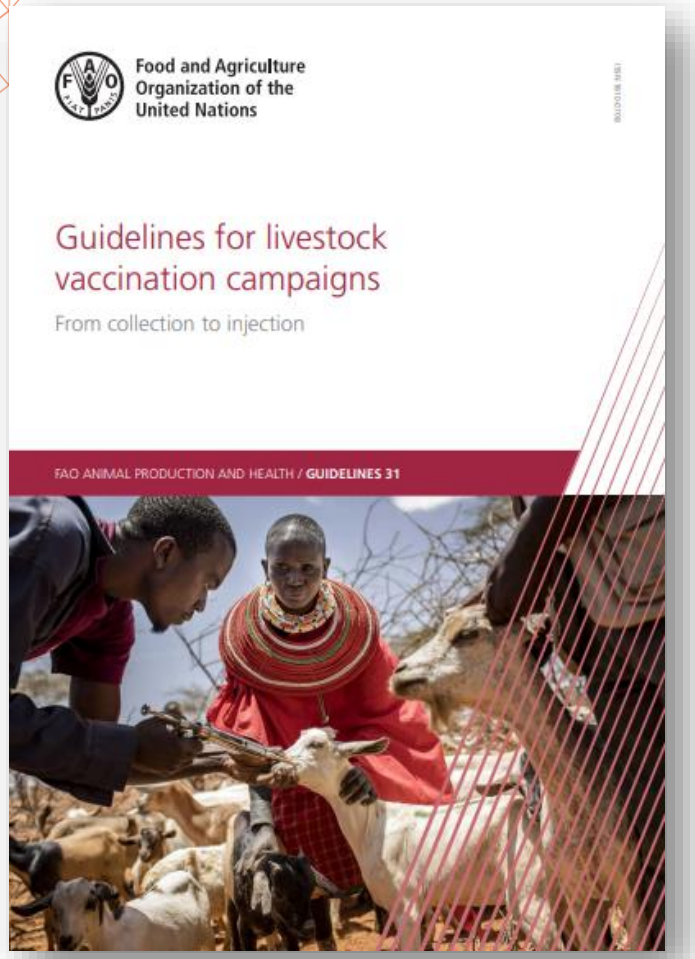
Vaccine matching and Post-vaccination monitoring

- **Four countries confirmed that vaccine matching tests been conducted** on samples in the last two years
  - Submitted to WRL Pirbright (4 countries), SAB (1), FMD Institute Türkiye (1)
- **Six countries used serological surveys to determine vaccination program effectiveness**
- **No countries stated there had been FMD outbreak in vaccinated animals**
  - Two were unsure
- **Four countries reported doing potency tests on vaccine prior to use**
  - 2 in a national laboratory
  - 2 in an international laboratory

Conclusions

- Small ruminants are vaccinated less and have an uncertain role in disease transmission
- There are opportunities for harmonisation of vaccine campaigns across borders
- There is regional laboratory capacity and links with laboratories in Europe
  - Positive laboratory integration with vaccine strategies – how can this be optimised?
  - Some opportunities to improve PVM
- Gap in PPP / private integration with vaccine campaigns

New FAO guidelines



Vaccination is one of the main pillars in disease prevention.

However, its effectiveness largely depends on appropriate delivery, such as adequate cold chain and hygienic injection. The success of large vaccination campaigns is in such details that will ensure appropriate immunity and prevent livestock diseases. The guidelines presented here offer in a concise and succinct way the most important aspects for consideration when planning and executing livestock vaccination campaigns.

***The information provided in these guidelines will be easy to take into the field and implement**, and by this contribute to the fight against the spread of livestock diseases including zoonotic ones.*

https://www.fao.org/documents/card/fr/c/cc3038en/

Resources on the PCP Hub

- VADEMOS a decision-support tool intended to be used to estimate current and future vaccine dose demand for FMD at a national, regional and global levels.
- Socioeconomic Analysis guidelines and open access course
- Vaccine Value Chain Tool (in development) – an framework to assist countries in designing effective and well-managed vaccination programs, ensuring that vaccine delivery is cost-effective and timely
- And lots more!

Thank you for your attention and to the responding countries

Any questions/comments, please contact the GF-TADs FMD Working Group at fao-fmd@fao.org and woah-fmd@woah.int

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