

A case study on EU guidance and guidelines:
the EU Laboratory Network for TB – (ERLN-TB)

Davide Manissero MD

Dusseldorf Nov. 29, 2013

Disclaimer

I am currently a QIAGEN employee.

This presentation is provided independently of my current professional role. The information and opinions provided hereby are based solely on my personal experience and judgment.

Information on EU activities are based on my previous professional engagements and do not extend beyond what is publicly available.

7 steps to a very un-scientific presentation

1. Europe (EU)- an unlisted telephone number
2. The Lisbon Treaty and the subsidiarity concept
3. The European Centre For Disease Prevention and Control (ECDC)
4. Tuberculosis as a case study
5. European Reference Laboratory Network – TB (ERLN-TB)
6. Guidance development
7. Impact (?)

1. Europe (EU)- an unlisted telephone number

*'I would call Europe if I
had a number'*



Henry Kissinger
US Secretary of State 1973-77

2. The Lisbon Treaty and the subsidiarity concept

- **Ratified in 2009** (preceded by Maastricht and Rome Treaty)
- Public Health Article limiting Union intervention – **subsidiarity concept**



Art. 168 on Public Health (2)

2. The Union **shall encourage cooperation between the Member States** in the areas referred to in this Article and, if necessary, lend support to their action. It shall in particular encourage cooperation between the Member States to improve the complementarity of their health services **in cross-border areas**.

7. Union action shall **respect the responsibilities of the Member States for the definition of their health policy and for the organisation and delivery of health services and medical care**.

Expanded Europe – the five freedoms in the EU

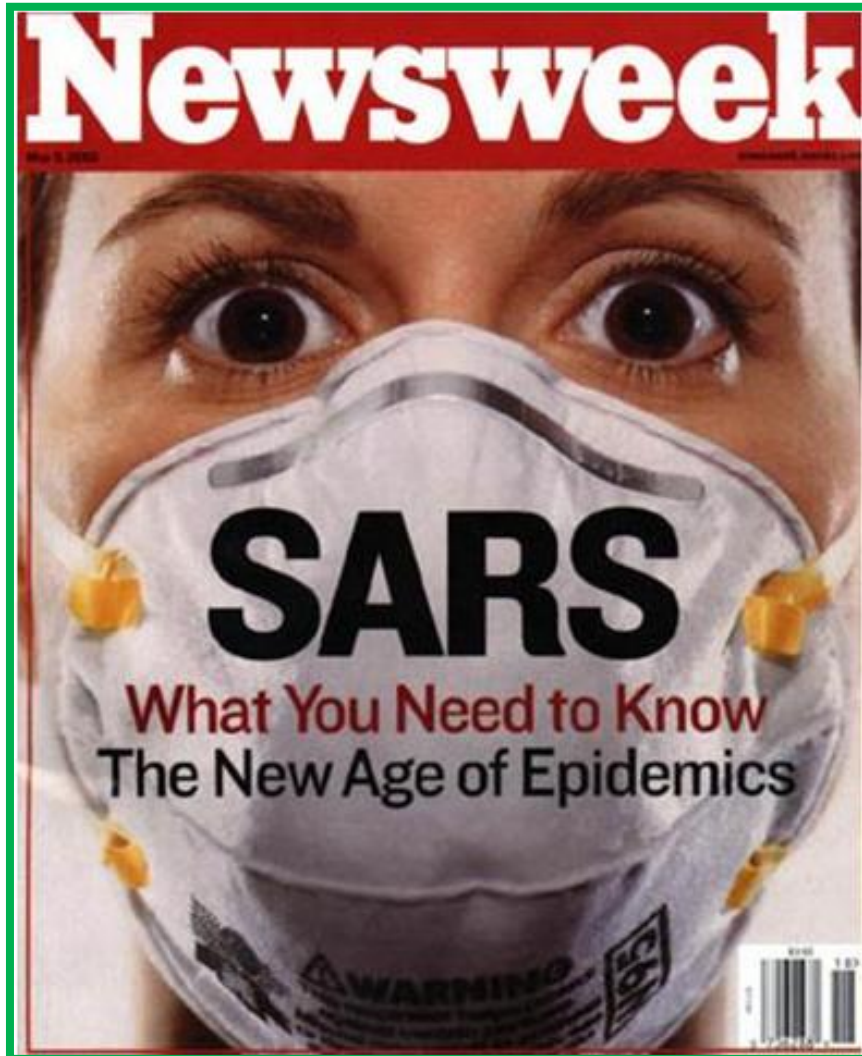
1. Free movement of people*
2. Free movement of services*
3. Free movement of goods*
4. Free movement of monies*

5. Free movement of **microbes**



* Adapted from 'Summary of Legislation — Internal Market'
<http://europa.eu.int/scadplus/leg/en/s70000.htm>

3. The European Centre For Disease Prevention and Control (ECDC)



The starting basis for ECDC

52 notifiable diseases
Decision No 2119/98/EC

Sexually/blood-borne diseases
(Euro-HIV, ESSTI)

Vaccine preventable diseases
(DIPNET, EUVAC.NET, EU- IBIS)

Zoonoses/food-borne diseases
(Enter-net, DIVINE, EuroCJD)

Respiratory diseases (Euro-TB,
EISS, EWGLINet)

**Antimicrobial
resistance/nosocomial infections**
(EARSS, ESAC, IPSE, EUCAST)

Other diseases (ENIVD)

30.4.2004

Official Journal of the European Union

L 142/1

I

(Acts whose publication is obligatory)

**REGULATION (EC) No 851/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 21 April 2004
establishing a European centre for disease prevention and control**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE
EUROPEAN UNION,

Having regard to the Treaty establishing the European Commu-
nity, and in particular Article 152(4) thereof,

of the Council of 24 September 1998 setting up a network
for the epidemiological surveillance and control of com-
municable diseases in the Community ^(*), which requires
timely scientific analysis in order for effective Community
action to be undertaken.

Having

improve-

... to identify, assess and
communicate current and
emerging health threats to
human health from
communicable diseases.

— ECDC Founding Regulation
(851/2004), Article 3

4. Tuberculosis as a case study

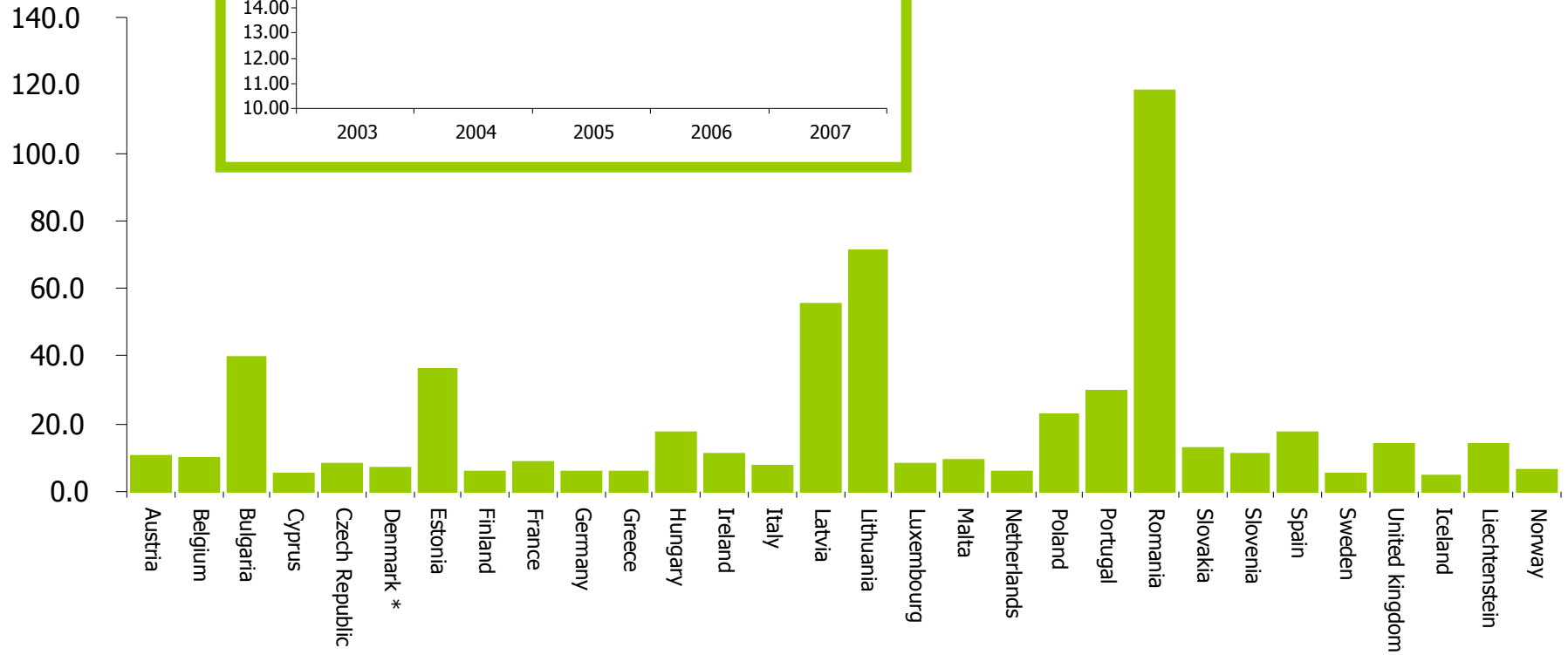
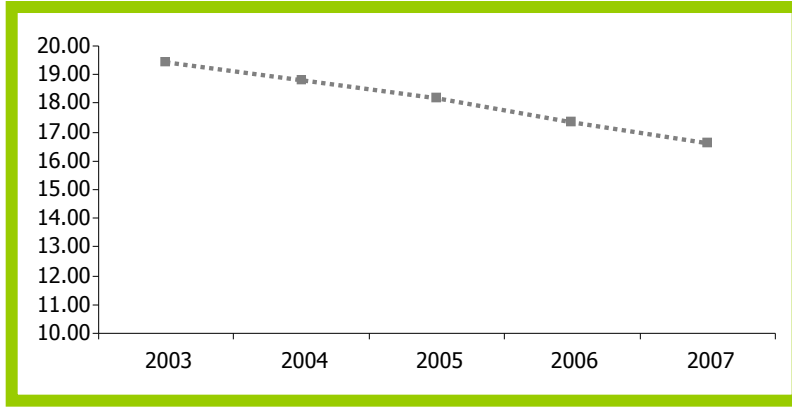
Before establishment of ECDC:

- Surveillance bases Disease Specific Network (DSN)
- No laboratory network, surveillance solely based on epidemiological data
- No programmatic or scientific advice / guidance

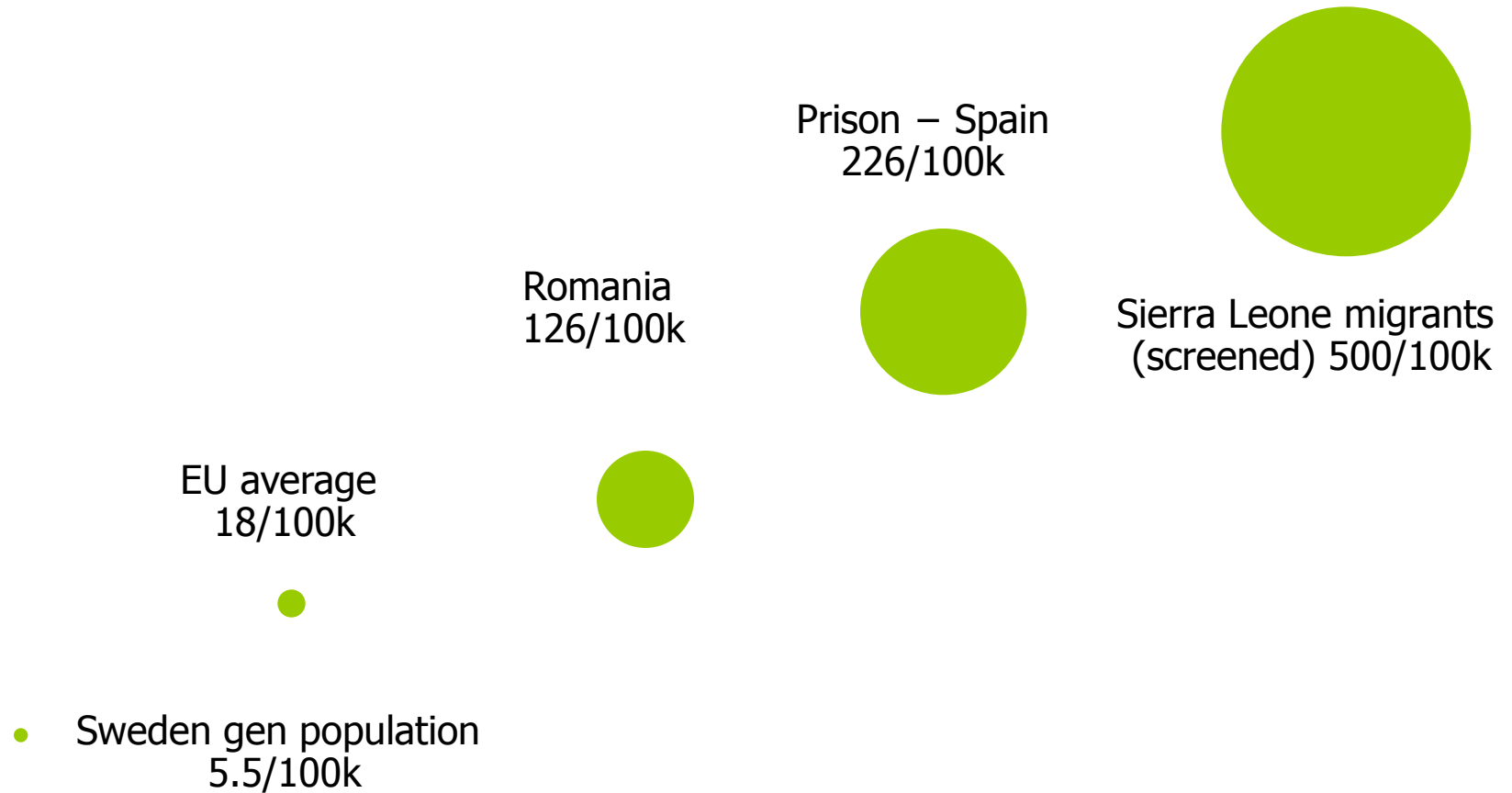
EuroTB



Heterogeneous situation among Member States



Heterogeneous situation in distribution of risk

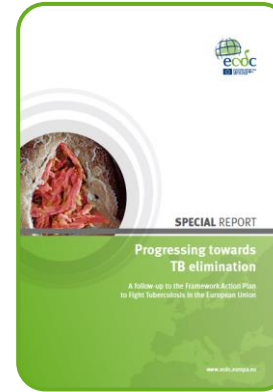


Focus



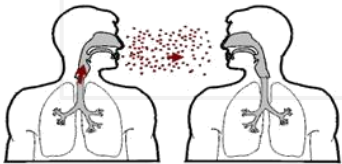
Framework action plan to fight tuberculosis in the European Union

Monitor



Progressing towards TB elimination: A follow-up to the action plan to fight TB in the EU

Key activities in tuberculosis programme



Prevention and Control



Surveillance



Laboratory Services



New tools for Tuberculosis



Tuberculosis in vulnerable populations

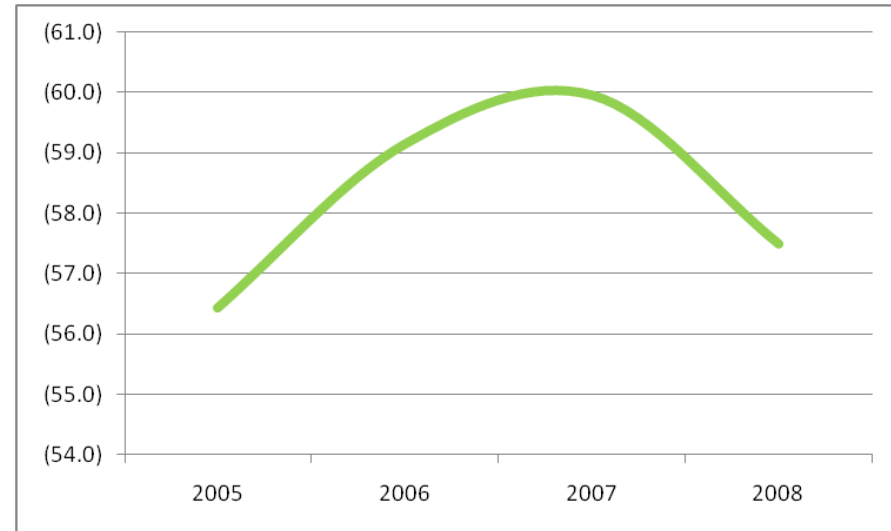
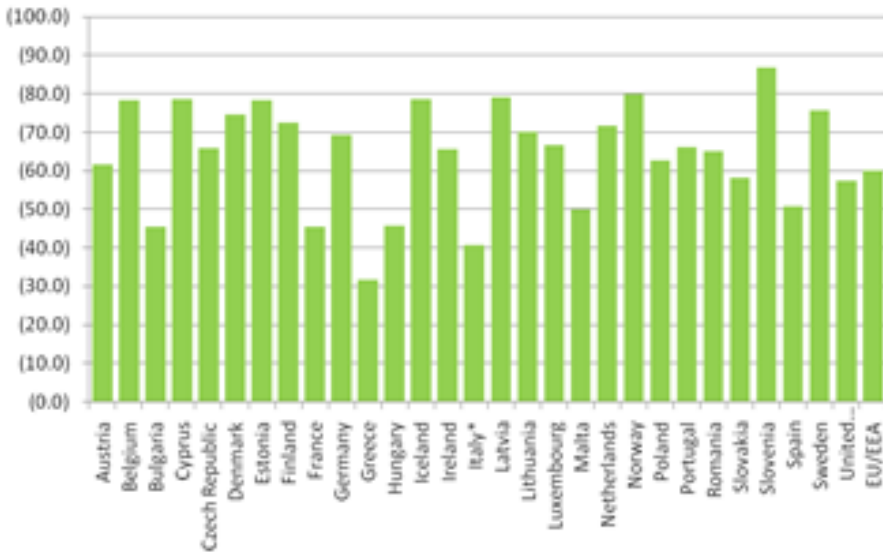
5. European Reference Laboratory Network – TB (ERLN-TB)

Two approaches leading to establishment of the ERLN-TB:

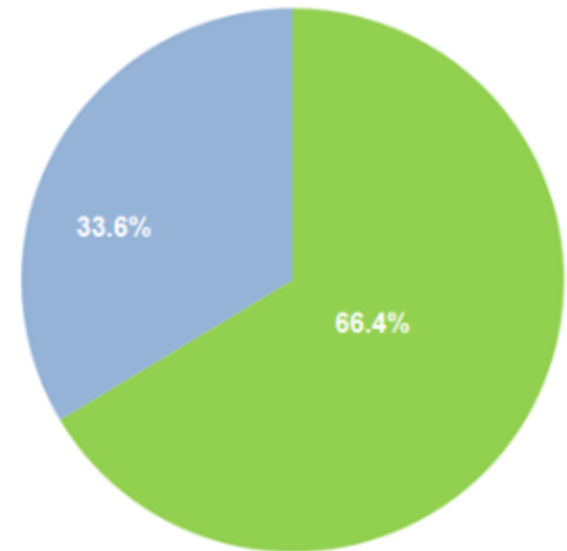
1. **TB epidemiological/diagnostic assessment**
2. **Situation analysis of added value of a TB laboratory network**

TB epidemiological/diagnostic assessment

TB cases confirmed by culture (2007)



1/3 culture confirmed TB cases without DST (R&H) 2007



Let's do the math.....

In the EU, resistance patterns for INH and RIF
~~are~~ were
UNKNOWN in over 60% of patients

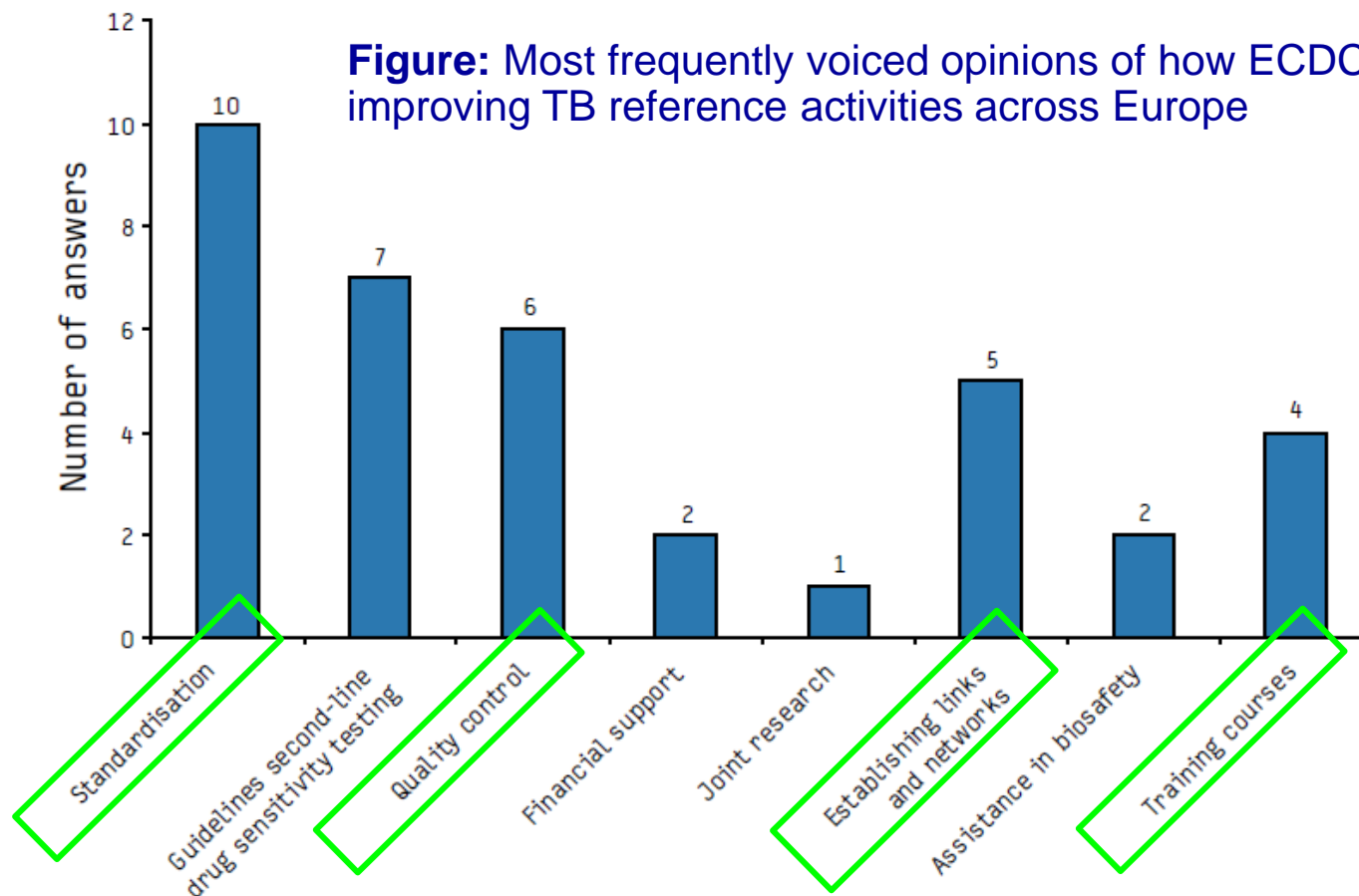
THE ADDED VALUE OF A EUROPEAN UNION TUBERCULOSIS REFERENCE LABORATORY NETWORK – ANALYSIS OF THE NATIONAL REFERENCE LABORATORY ACTIVITIES

F A Drobniowski¹, V Nikolayevsky¹, S Hoffner², O Pogoryelova¹, D Manissero³, A J Ozin (amanda.ozin@ecdc.europa.eu)³

1. Health Sciences Research and Health Protection Agency, London, United Kingdom

2. Department of Bacteriology, Smittskyddsinstitutet (Swedish Institute for Infectious Disease Control, SMI), Solna, Sweden

3. European Centre for Disease Prevention and Control, Stockholm, Sweden



Reference laboratory network for TB diagnostics and molecular typing

ECDC Tuberculosis Programme

European Reference Laboratory Network for Tuberculosis



Consists of officially nominated laboratories from EU Member States, EFTA and EEA countries (& candidate countries).

Services and activities, e.g.:

- Training
- Harmonisation of methods
- EQA

Consortium for Network Support (CNS)¹

- Coordination
- Training
- Communication
- Quality assurance

Int'l organisations, associations, initiatives²

² CDC, WHO, KNCV, GLI, WHO/IUATLD supra-national reference laboratory network for tuberculosis

Cross-cutting projects³

³ TB-PAN-NET

Academia

Neighbouring countries

ERLN TB GOALS

Goals of the ERLN-TB:

- ✓ **Methods harmonisation** between TB laboratories.
- ✓ Establishing EU-wide **quality assurance** of diagnostic methods.
- ✓ Increasing human resources through **Training** activities.
- ✓ Liaising with other **international initiatives** to build synergy.

1st round of EQA 2009:

- ✓ Collaboration with INSTAND and WHO collaborating centre for EQA.
- ✓ Smear microscopy, culture, identification, first line drug-susceptibility testing.
→ Established baseline of quality within ERLN-TB.
- ✓ Later rounds included - 2nd line drug-susceptibility testing, WHO endorsed Line Probe Assays for identification and drug-susceptibility testing of Rif and INH.

6. Guidance development– from evidence to opinion

Collect & present the evidence

Convene *ad hoc* scientific panel

Guidance: Evidence-based expert opinion

Frequently Asked Questions

- Evidence – Systematic reviews & Meta-analysis or key studies.

TB experts

- From laboratory to TB Control Program
- No Conflict of Interest
- Endorsed by ECDC Director
- Evidence-based consensus opinion

ECDC update and include

- Opinions endorsed at the meeting
- Preamble to each opinion as identified by the panel

Providing evidence-based EU-adapted guidance



- Need to adapt international available guidance to EU setting
- Peculiarity of a highly heterogeneous situation
- Need to respond to evolving TB pipeline of new tools
- Integrated TB care services
- 3 guidelines developed with ERLN-TB involvement

7. Impact (?)

CORE INDICATOR 3: number of reference labs achieving a cumulative score of 80% or more in QA SM, culture, DST 1st and 2nd line.

100% (23/23) participating labs achieving the target.

CORE INDICATOR 5: % pulm. TB cases confirmed by culture

(2009-2010) doubling of number of countries achieving 80% target (6 to 12) with an overall performance of 65.6% (vs. 57% in 2009)

DST (R+H) 70.8% (vs 66.4% 2009)

Conclusions

- Peculiarity of **EU health policy environment**
- Communicable Diseases (such as TB) requiring **cross border action**
- **Heterogeneity** of EU TB epidemiology and control
- **ERLN-TB** good example of EU concerted action
- **Guidance** built on evidence and consensus
- **Potential impact** of concerted guidance and quality assurance actions

EU might have a phone number, at least for TB laboratories.....