

# Programme area 2.1

## Strengthening water-related disease surveillance and outbreak detection and response

Lead Parties: Norway and Belarus

Bernardo Guzman Herrador  
Norwegian Institute of Public Health

Fourth session of the Meeting of the Parties  
Geneva, 14-16 November 2016

Protocol on Water and Health



# Context of work

Supports implementation of global and regional policies and commitments:

- \* Protocol on Water and Health core obligations
- \* International Health Regulations (2005) core requirements
- \* WHA resolution 64/24 on drinking water and sanitation

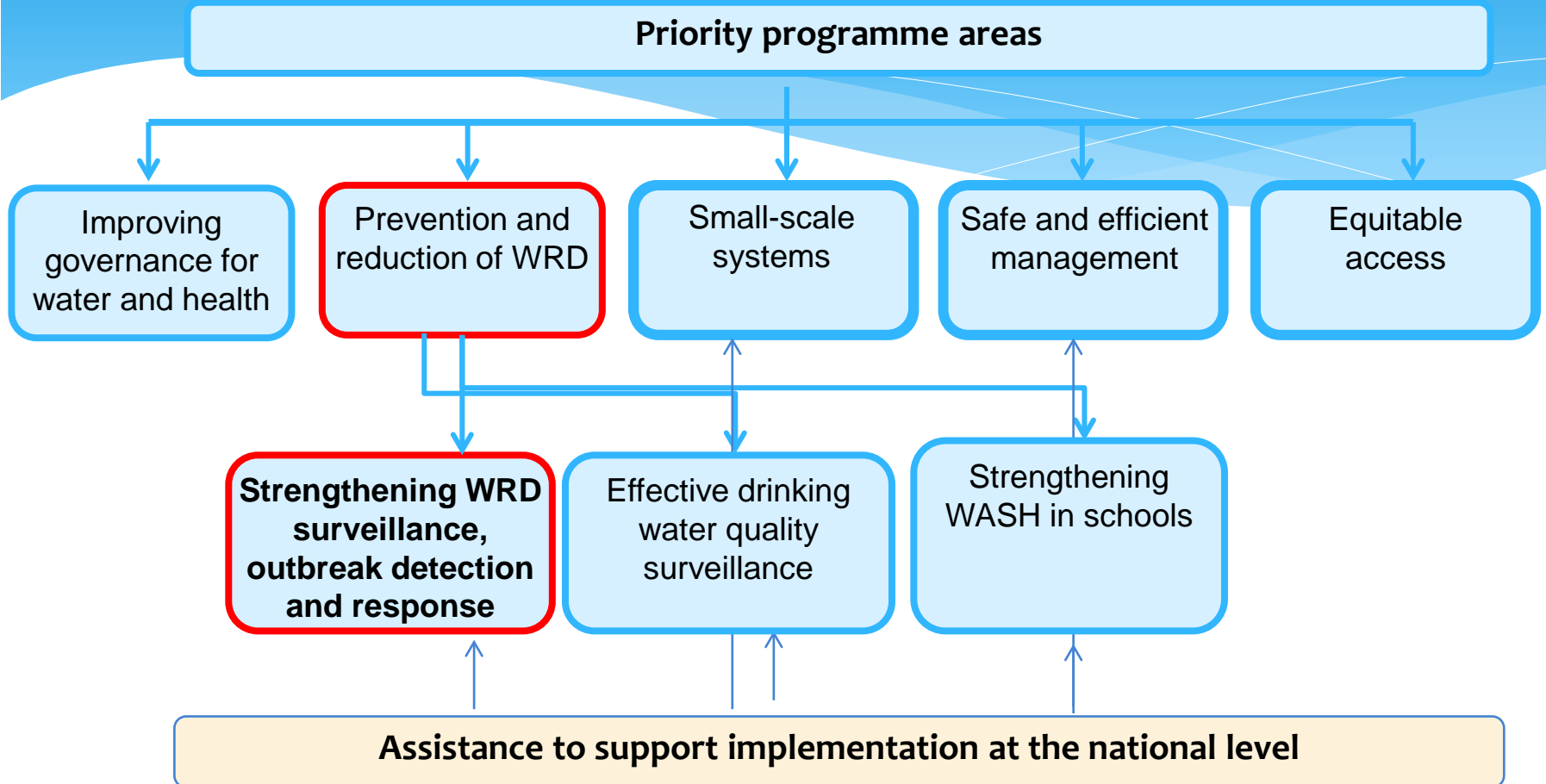
# Context of work

- Supports implementation of the Protocol core obligations:

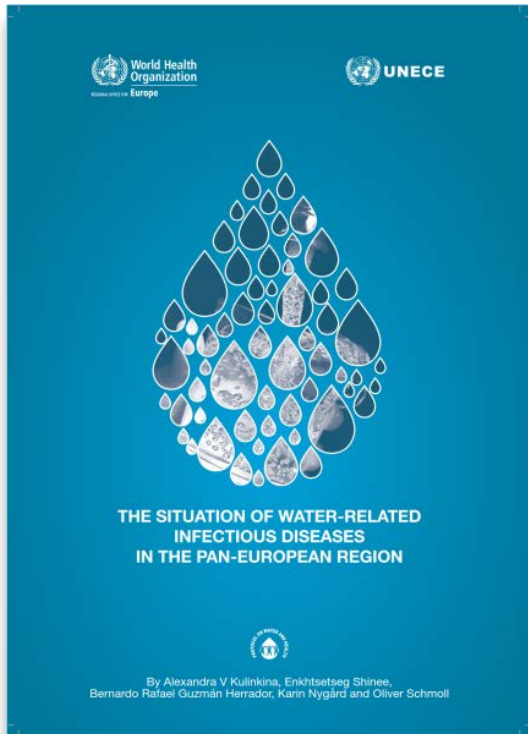
Article 6: within 2 years of becoming a Party, should **set targets** for preventing, controlling and reducing WRD

Article 8: within 3 years becoming a Party, establish, improve and/or maintain **surveillance, early warning systems, contingency plans and response capacities** for WRD

# Protocol 2014-2016 programme of work



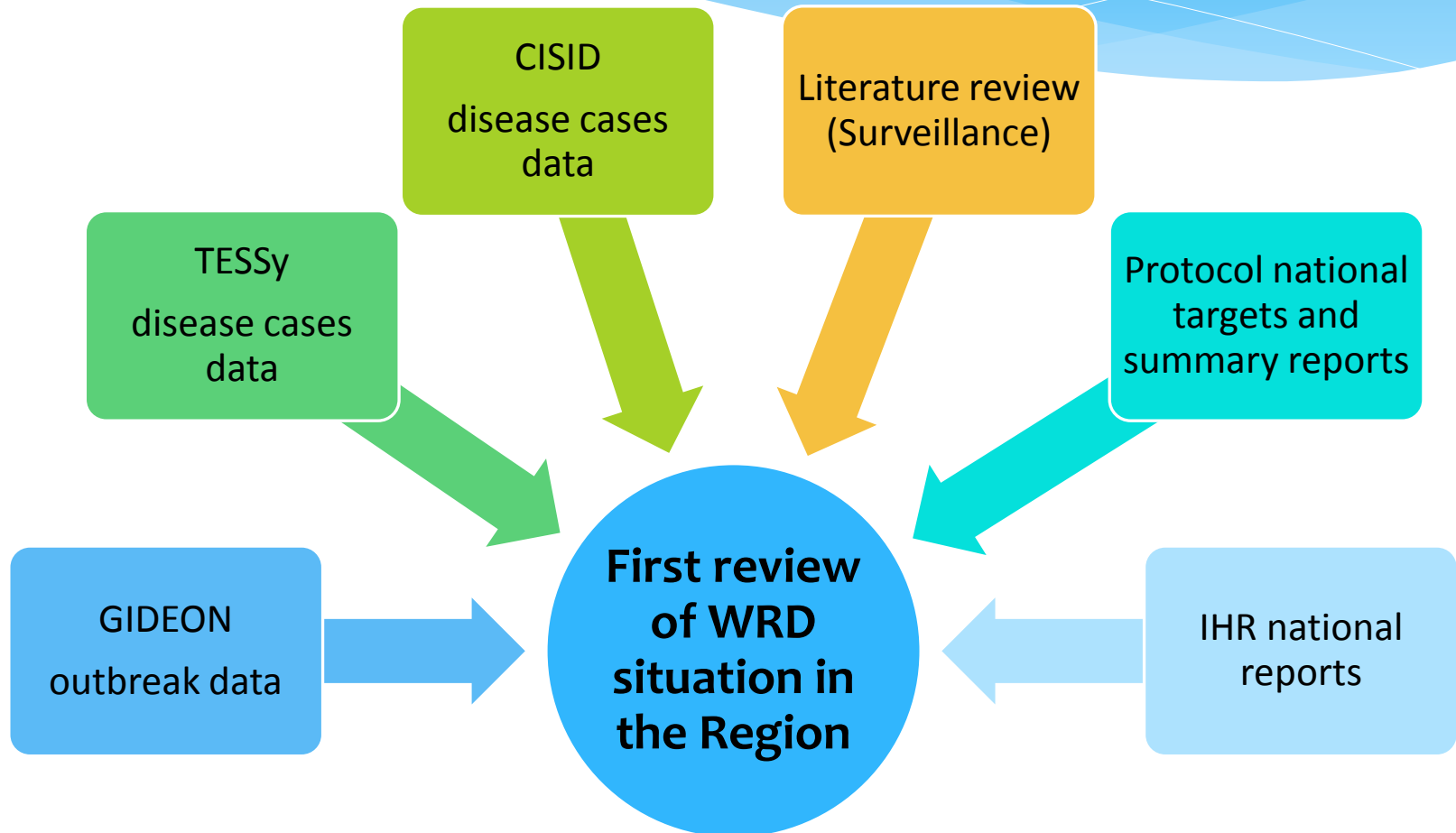
# Important milestone: evidence review



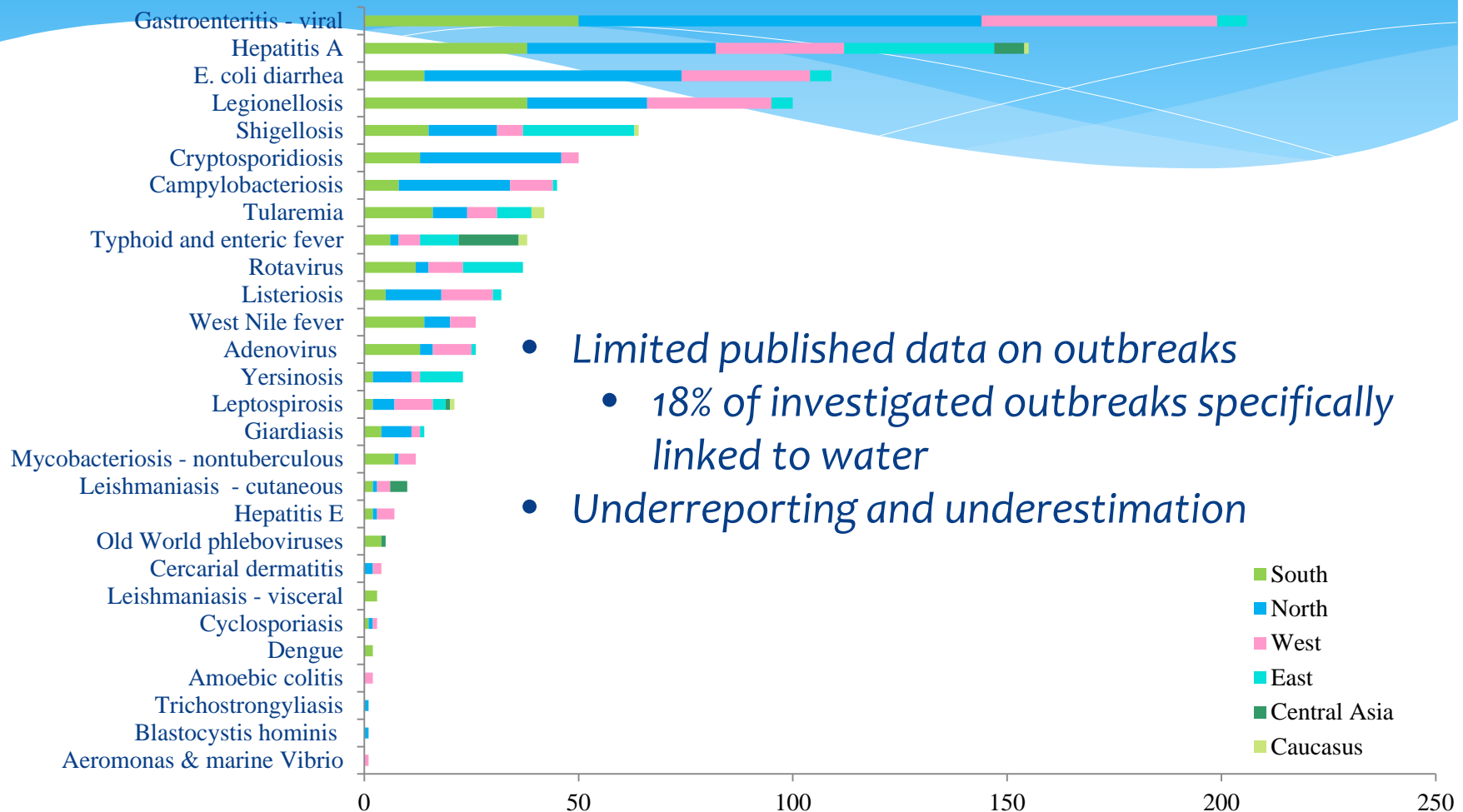
“WRD report”

- \* **Review of available evidence on WRDs in the pan-European region for the first time**
  - \* situation of water related infectious diseases
  - \* Situation WRD surveillance and outbreak response systems
- \* **New publication:** launch at the 4<sup>th</sup> session of the Meeting of the Parties

# WRD report

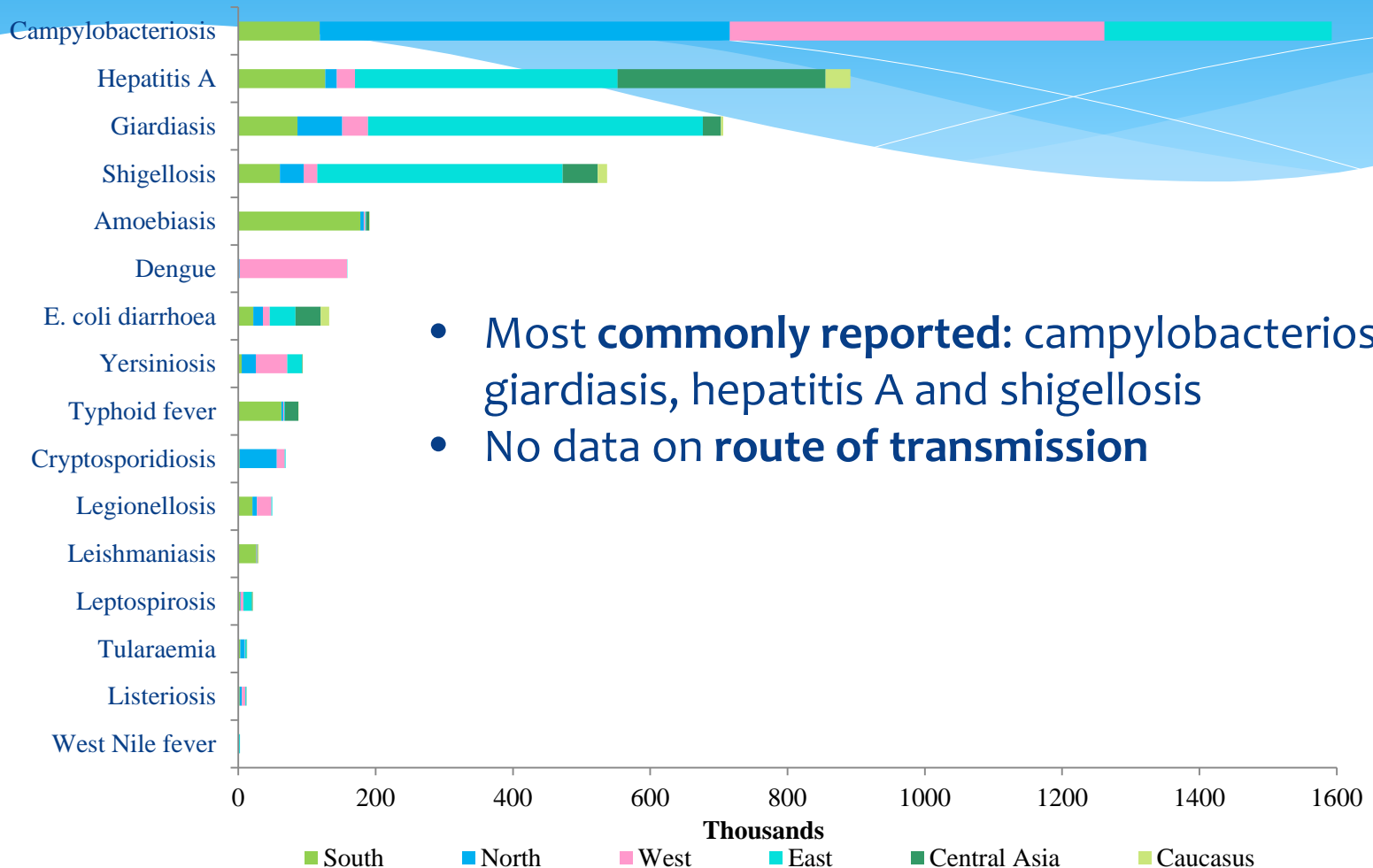


# Waterborne outbreaks, 2000-2013



- Limited published data on outbreaks
  - 18% of investigated outbreaks specifically linked to water
- Underreporting and underestimation

# Disease cases, 2000-2010



- Most **commonly reported**: campylobacteriosis, giardiasis, hepatitis A and shigellosis
- No data on **route of transmission**



# Waterborne outbreaks reported under the Protocol on Water and Health

- \* Period 2010-2012: 23 countries provided data on the number of cases and outbreaks of five diseases required for reporting under the Protocol
- \* 279 outbreaks of these WRDs were reported from nine countries
- \* Inconsistency and variations of reporting between countries
  - \* Measurements, route of transmission?

Disease	Number of reported outbreaks	Number of countries
Cholera	1	1
Shigellosis	74	7
<i>E. coli</i> diarrhoea (EHEC)	5	3
Hepatitis A	198	7
Typhoid fever	1	1
<b>Total</b>	<b>279</b>	

# Evidence review: main findings

- \* In the pan-European region
  - \* systematic and accurate information on WRDs is lacking
  - \* **true extent of WRDs is unknown**
    - \* limitations of surveillance systems related to investigation of sporadic cases, identifying the causal pathogen and distinguishing the transmission vehicle
- \* **National core capacities** for surveillance and response to WRDs **need to be strengthened**
- \* Existing international and national reporting systems concerning WRDs need to be better coordinated
- \* **Progress made in setting WRD targets** under the Protocol

# Main achievements:

## Country training needs assessment

- \* Electronic survey for pilot countries
- \* Training material prepared and adapted to needs

### Training needs assessment questionnaire

Prevention and reduction of water-related diseases (WRD) is a priority programme area of work under the Protocol on Water and Health. Capacity building activities on WRD surveillance are planned under the 2014-2016 programme of work of the Protocol.

This survey aims at identifying the concrete capacity building needs on WRD surveillance and outbreak management in selected countries.'

#### Part 1: Introduction

Please, describe how WRD surveillance and outbreak management is regulated and implemented in your country.

1) Is there a national plan or strategy or regulation related to WRD surveillance? Please briefly describe key elements and/or requirements.

2) Who are the main actors involved? What are their roles and responsibilities?

3) Please, describe how WRD surveillance and outbreak identification and response are organized in your country. Please specify whether outbreaks are normally handled at national or local level

# Main achievements: Capacity building

- \* **Trainings:**

- \* The former Yugoslav republic of Macedonia, March 2016
- \* Czech Republic, May 2016

- \* **Objective:** Support to strengthen surveillance of WRD and support knowledge and skills of national professionals on surveillance and preparedness and response to waterborne outbreaks.

# Main achievements: Capacity building

- \* **Content:** tailored to the needs identified
  - \* WRD and outbreak surveillance and response systems
  - \* Outbreak management: detection, investigation and control
    - \* Steps on outbreak investigation
    - \* Risk communication
  - \* Epidemiological investigation of waterborne outbreaks
    - \* Descriptive epidemiology
    - \* Analytical epidemiology
  - \* Country examples
  - \* Interactive group works on outbreak scenario

# Main achievements

## Capacity building workshop



# Capacity building workshop

## Main challenges and lessons learned

- \* Needs assessment helped in designing **the country specific training programme**
- \* Countries **identified gaps and strengths** through the discussions and group exercises
- \* **Review the outcomes** of the two pilot workshops with a vision for future work
  - \* What went right and what can be improved (e.g. technical content, methodology, structure)?
- \* Plan for **cascade training** (“train the trainers”) to strengthen the professional development in WRD surveillance

# Lessons learnt for future work

- \* Continuing support countries in implementing article 8:
  - \* Scale up systematic trainings in WRD surveillance
  - \* Capacity building activities focused on methodological aspects of outbreak epidemiological investigations





# Linkages to Agenda 2030

- \* SDG 3.3 to combat waterborne disease
- \* SDG target 3.9 to reduce the number of deaths and illnesses from water pollution and contamination;
- \* SDG target 3.d to strengthen the capacity for early warning, risk reduction and management of risks
- \* SDG 6.1 and 6.2 targets on provision of safely managed drinking water and sanitation services

# Proposed activities for 2017-2019

- \* **Objectives:** support Parties and other States in implementing article 8 of the Protocol, specifically to strengthen national capacities to maintain and sustain
  - \* surveillance and early warning systems of WRDs
  - \* preparedness and contingency planning
  - \* outbreak response and investigation

# Proposed activities for 2017-2019

- \* Review and update the **training modules** on WRD surveillance
  - \* Including the establishment of a website to access the materials
- \* Support national **capacity-building** activities

# Next steps

## Programme of work for 2017-2019

- \* Create **roster of experts** to support WRD surveillance efforts and management of waterborne outbreaks
- \* **Revision of the technical guidance document on WRDS**
  - \* Recommended by the Meeting of Strengthening Surveillance of WRD (Bonn, October 2014)
    - \* More user-friendly structure and design
    - \* Address additional emerging pathogens
    - \* Methodological guidance on outbreak investigation
    - \* Risk communication