

Evidence review of water-related diseases in the WHO European region

**Seventh meeting of the Working Group on Water and Health,
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Background

- The Lead Parties planning meeting, 31 March 2014, Bonn
- Identified a need to prepare regional overview of WRDs
 - To inform further activities under the Protocol for strengthening WRD and outbreak surveillance and response.
- Supervision by the Lead Parties and WHO secretariat

Scope and objectives

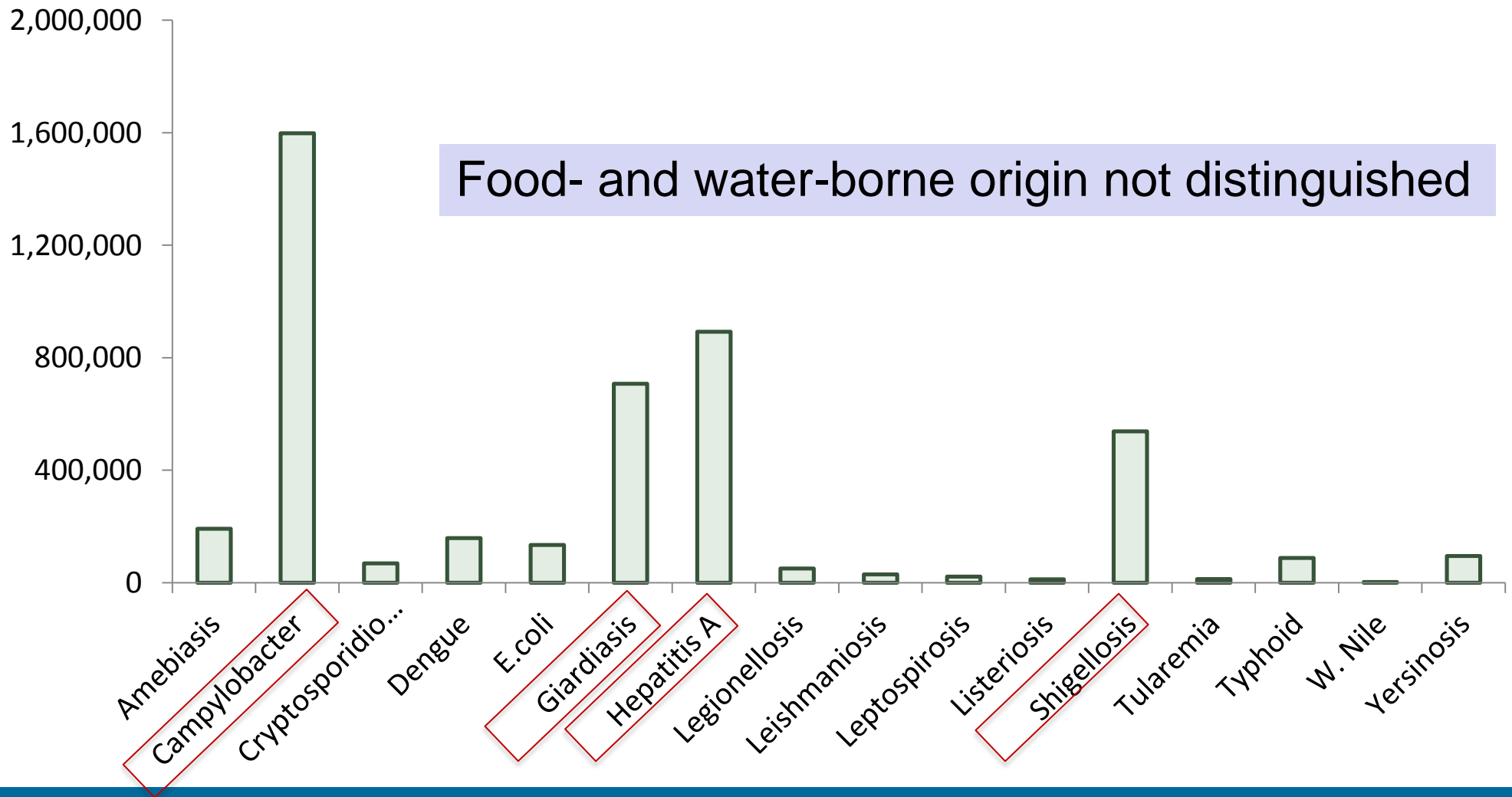
- To review available information in the European region on:
 - WRD surveillance and outbreak response
 - Burden of infectious WRDs and outbreaks
 - Non-infectious water related (WR) exposures
 - Nitrate
 - Fluoride
 - Arsenic
 - Lead

Data sources

- Scientific and grey literature
- Global Infectious Diseases and Epidemiology Network (GIDEON) database
- WHO/Europe Centralized Information System for Infectious Diseases (CISID)
- The European Surveillance System (TESSy) of the European Center for Disease Prevention and Control
- International Health Regulations (IHR) Implementation Reports (2011-2012)
- National summary reports under the Protocol

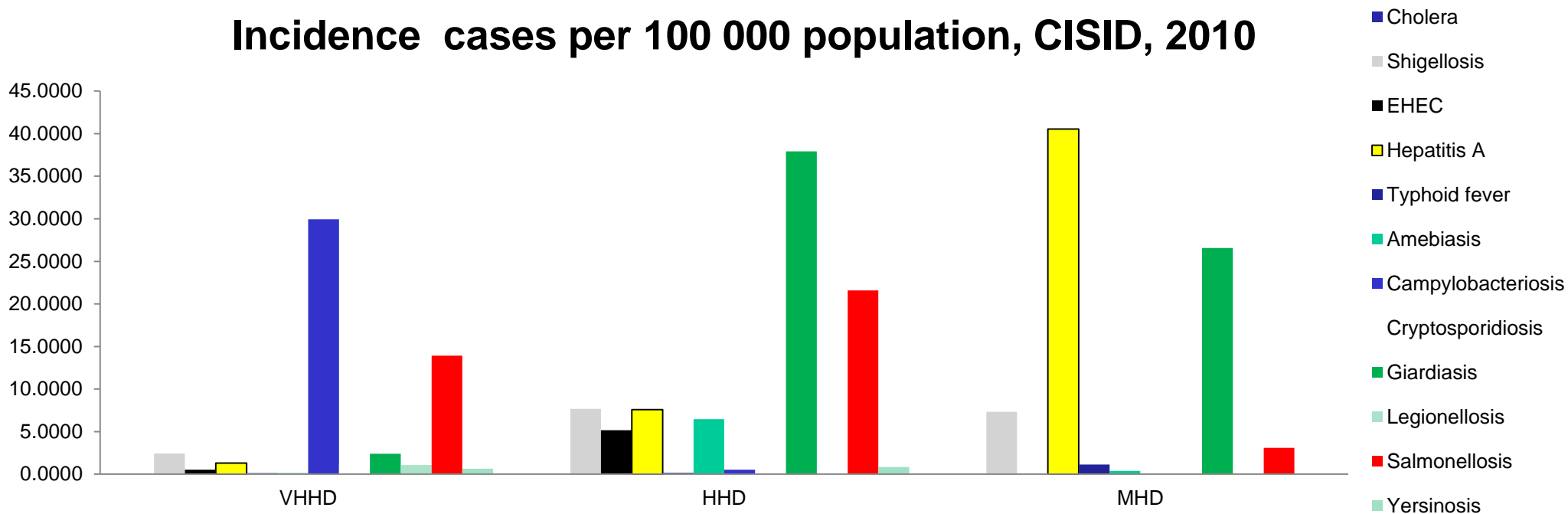
Preliminary findings

Most reported WRDs (CISID 2000-2010)



WRDs by human development category

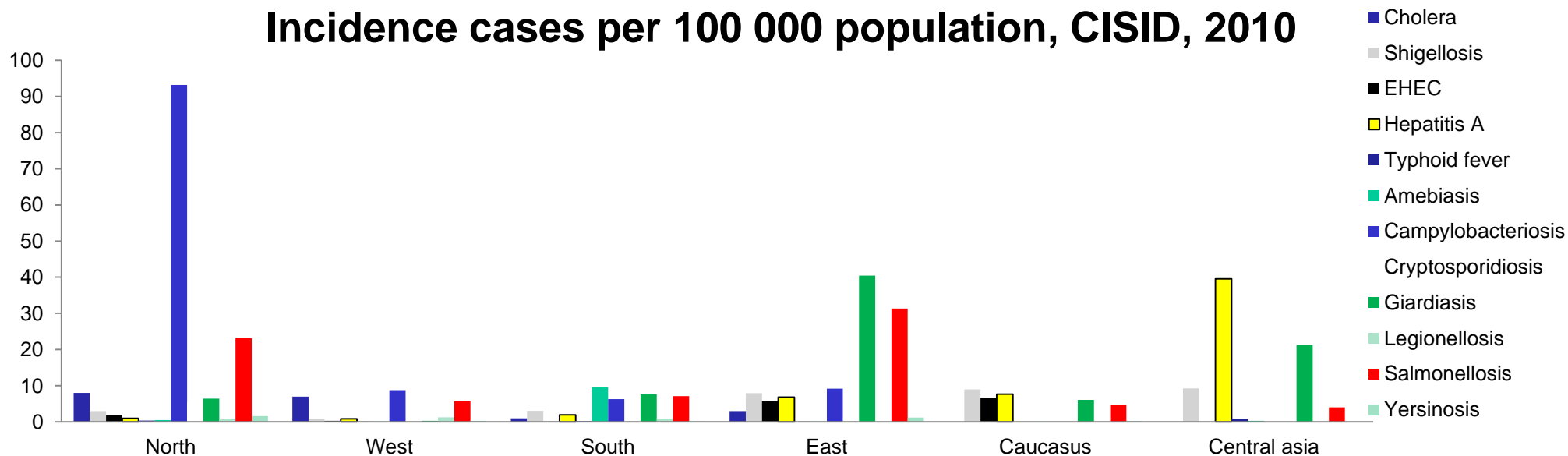
Incidence cases per 100 000 population, CISID, 2010



* Food- and water-borne origin not distinguished

WRDs by geographic sub-region

Incidence cases per 100 000 population, CISID, 2010



* Food- and water-borne origin not distinguished

WRDs

- Infectious WRDs

- Most reported: Campylobacteriosis, giardiasis, shigellosis, Hepatitis A
- Other: legionellosis, tropical diseases

- Non-infectious WR exposures

- Nitrate (rural areas)
- Fluoride and arsenic (localized)
- Lead (suspected widespread)

Setting targets on WRD

Number of Parties	26
Parties adopted WRD targets	10 (BLR, CZE, FIN, DEU, HUN, NLD, NOR, MDA, SVK, UKR)
Parties not adopted WRD targets	16
Non-Parties with WRD target	1 (KGZ)

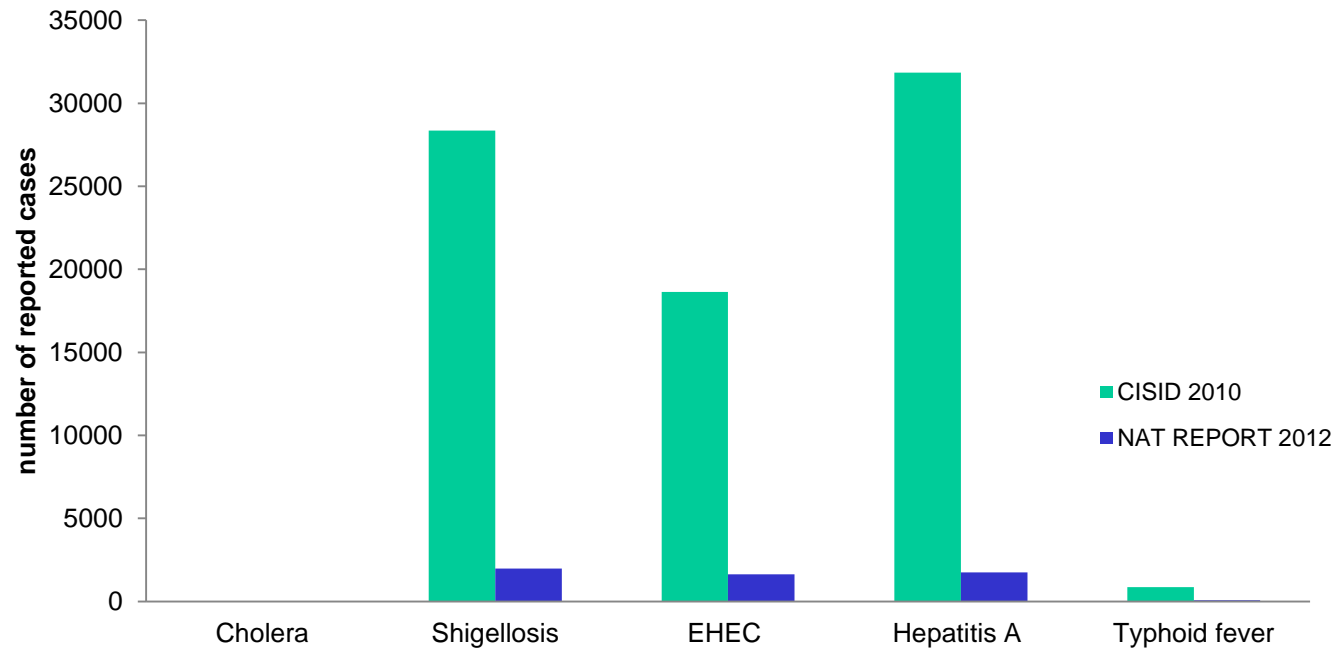
•WRD reduction targets:

- Time-bound measurable
- General WRD reduction

•Surveillance system improvement targets

Reporting of WRDs

CISID vs. reporting under Protocol



- Great discrepancy of reporting

National summary reports: good practices

- Monitoring occurrence of WRDs in child establishments (BLR)
- Compulsory notification of outbreaks caused by drinking, bathing and pool water (FIN)
- Improvements in rapid notification (AZE, GEO, HUN)
- Focus on private and small water supply systems (FIN, NOR, SVK)
- Laboratory and human resource capacity building (MDA, RUS, ESP)

Knowledge gaps

- WRD burden contributed by
 - Small rural water systems
 - Swimming/bathing waters
 - Sporadic cases vs. outbreaks
- Limited ability to identify
 - Transmission vehicle (food vs. waterborne)
 - Causative agent
 - Domestic vs. imported cases

Issues of concern

- Not unified way of data reporting
- Under-reporting of some diseases
- Surveillance system capacity differs across countries
- Review reporting template
- Need for better coordination

Outline of review report

- Introduction
- Methodology
- Burden of infectious WRDs in the region
- Status of non-infectious WRDs
- WRDs surveillance capacity
- Target setting and reporting of WRDs under the Protocol
- Best practices and case studies on effective surveillance and outbreak management
- Knowledge gaps
- Conclusions and recommendations

WRD review report to be finalized in 2015