Programme area 2:
Prevention and reduction of water-related diseases
Lead Parties: Belarus and Norway

Karin Nygård and Susanne Hyllestad
Norwegian Institute of Public Health

5th session
Meeting of the Parties to the Protocol on Water and Health

19-21 November| Belgrade | Serbia

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Objectives and expected outcomes

The programme area aims to support Parties and other States in implementing article 8 and other key requirements of the Protocol, specifically to strengthen national capacities to maintain and sustain:

- surveillance and early warning systems of WRDs
- preparedness & contingency planning and outbreak response & investigation
- effective systems for surveillance of drinking water quality

Context of work

Protocol provisions:

- Access to adequate supply of wholesome drinking-water for everyone (Article 4)
- Establish and maintain a legal and institutional framework for monitoring and enforcing standards for the quality of drinking water (Article 6)
- Promote (…) operation of effective networks to monitor and assess the provision and quality of water-related services…(Article 14)
- Establish, improve and/or maintain surveillance, early warning systems, contingency plans and response capacities for WRD (Article 8)

- Surveillance of drinking-water quality and water-related diseases - essential public health function
- Support requirements of the International Health Regulations
- Contribute to advancing global health security and achieving SDG targets 3.3; 3.9; 6.1

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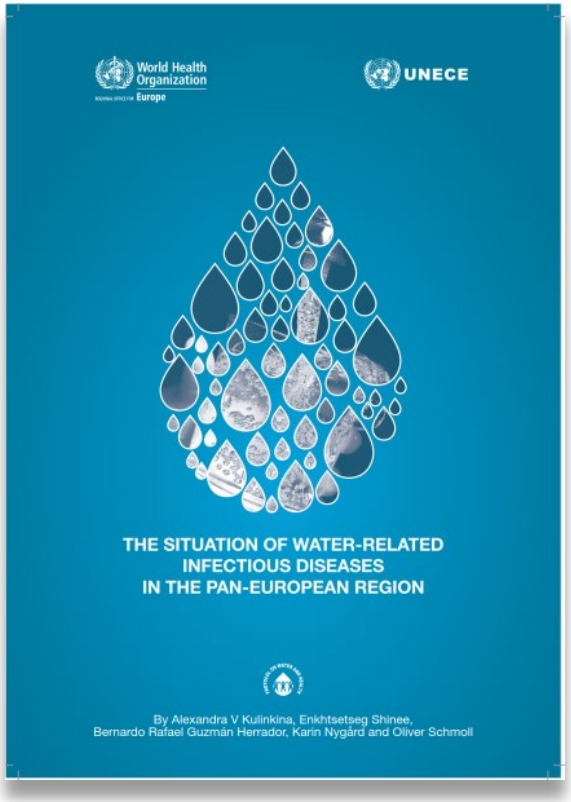
Background: evidence on WRDs in Europe

- Waterborne outbreaks and sporadic disease occur regularly, despite overall high compliance with drinking-water quality standards
  - *Ex: 2019: WBO in Askøy, Norway > 2000 sick*
- True extent of WRDs is unknown
  - limitations of surveillance systems related to investigation of sporadic cases and outbreaks
  - identifying the causal pathogen and distinguishing the transmission vehicle
- In order to target and prioritize preventive efforts, improved information on WRID disease burden and contributing factors in outbreaks are needed



- **Strengthening national capacities for:**
  - **water-related disease surveillance, early warning and outbreak response**
  - **application of risk-based approach in drinking-water supply surveillance**

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Major milestones since 2017 and outcomes

Water-related disease surveillance

1. Developed tool on Strengthening surveillance and outbreak management of water-related infectious diseases associated with water supply systems
   - Two meetings of lead Parties and experts: Bonn, Germany, 3 November 2017; Oslo, 11 and 12 March 2019)

2. Three national training workshops on water-related disease surveillance and outbreak response in Kyrgyzstan, Armenia and Azerbaijan
   - (Bishkek, 23– 25 May 2017; Yerevan, 4–6 June 2018; Baku, 8–10 October 2018)

3. A multi-country workshop on soil-transmitted helminthiasis reviewed implementation of the 2015–2020 regional framework for control and prevention of soiltransmitted helminthiasis infections and recommended integrating WASH aspects into national prevention strategies and action planning
   - (Chisinau, 21 and 22 June 2018)

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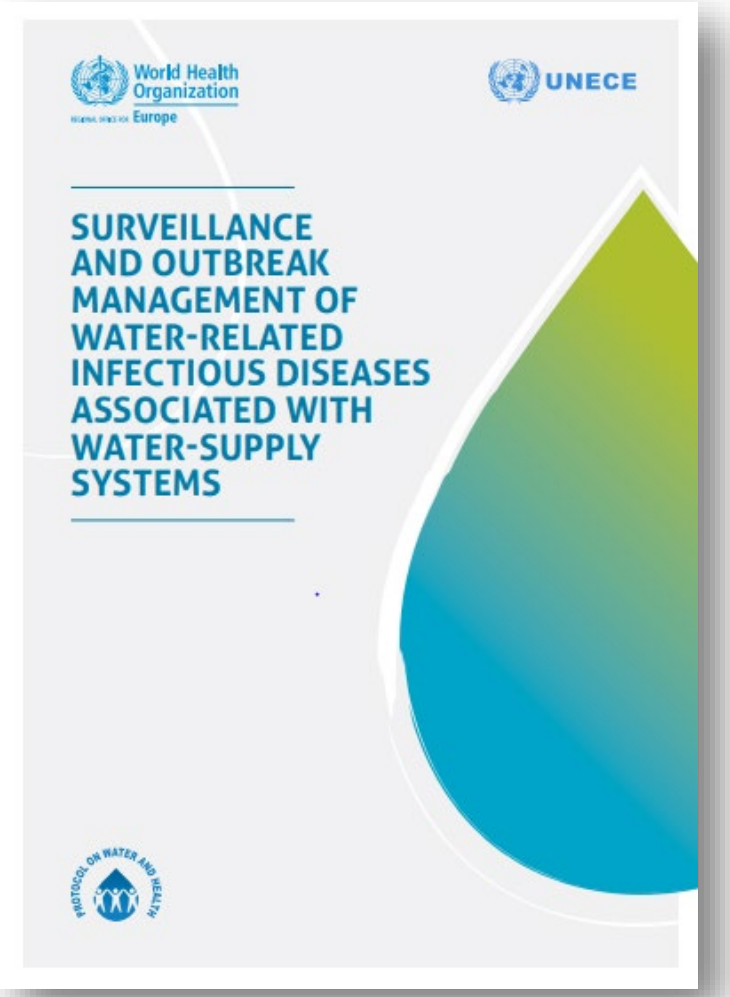
Output: new publication on WRID

PART A. SURVEILLANCE OF WATER-RELATED INFECTIOUS DISEASE. .

- Overview of WRID surveillance
- Enabling factors for strengthening and sustaining WRID surveillance. .
- Approaches to WRID surveillance data analyses.
- Interlinkage of water-quality surveillance with WRID surveillance. .
- Using surveillance data for advocacy

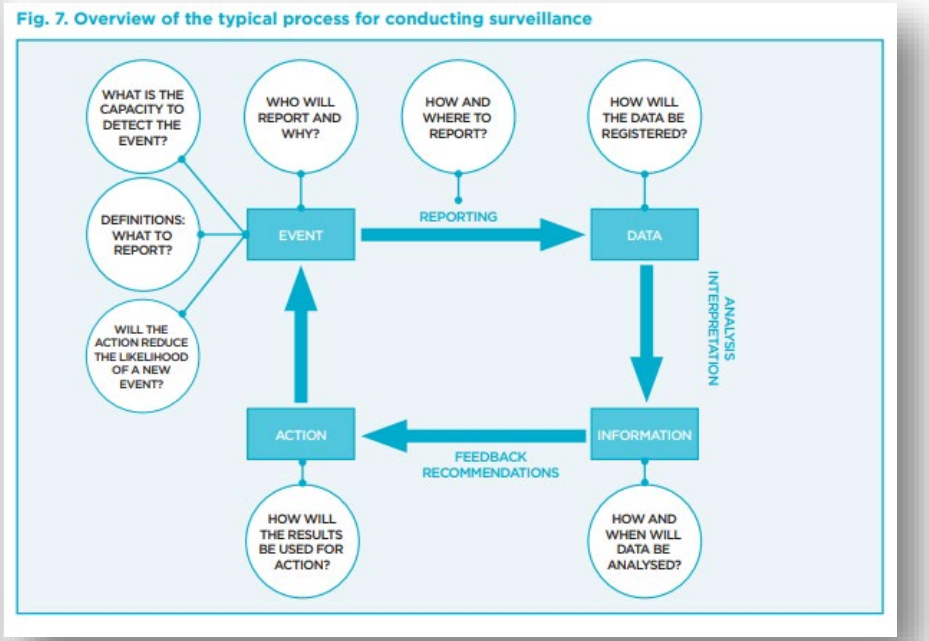
PART B. MANAGEMENT OF OUTBREAKS OF WATER-RELATED INFECTIOUS DISEASE

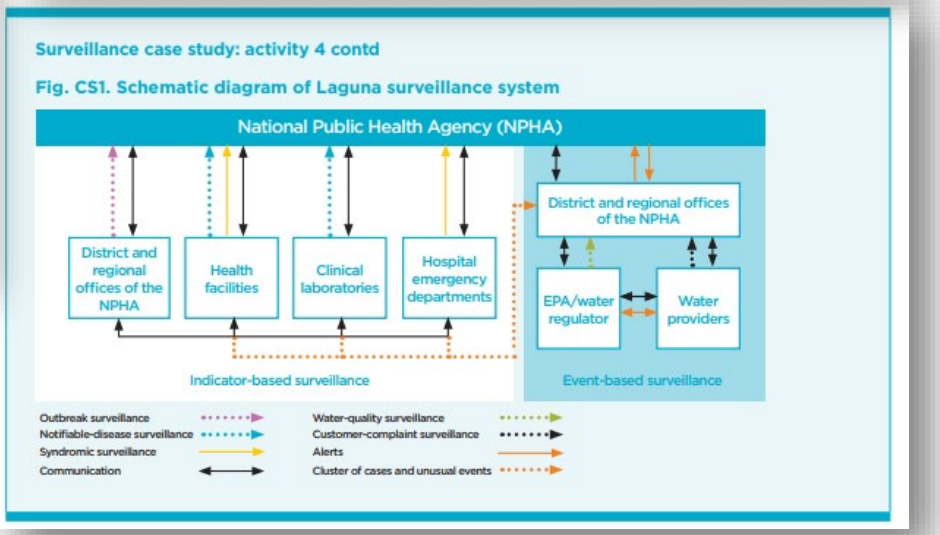
- Introduction to outbreaks.
- Contingency planning .
  - Considerations in contingency planning
  - Boil water notices
  - Revising and updating emergency response plans
- 10 Steps in outbreak management
- Risk communication.
- International frameworks for managing transboundary events and outbreaks

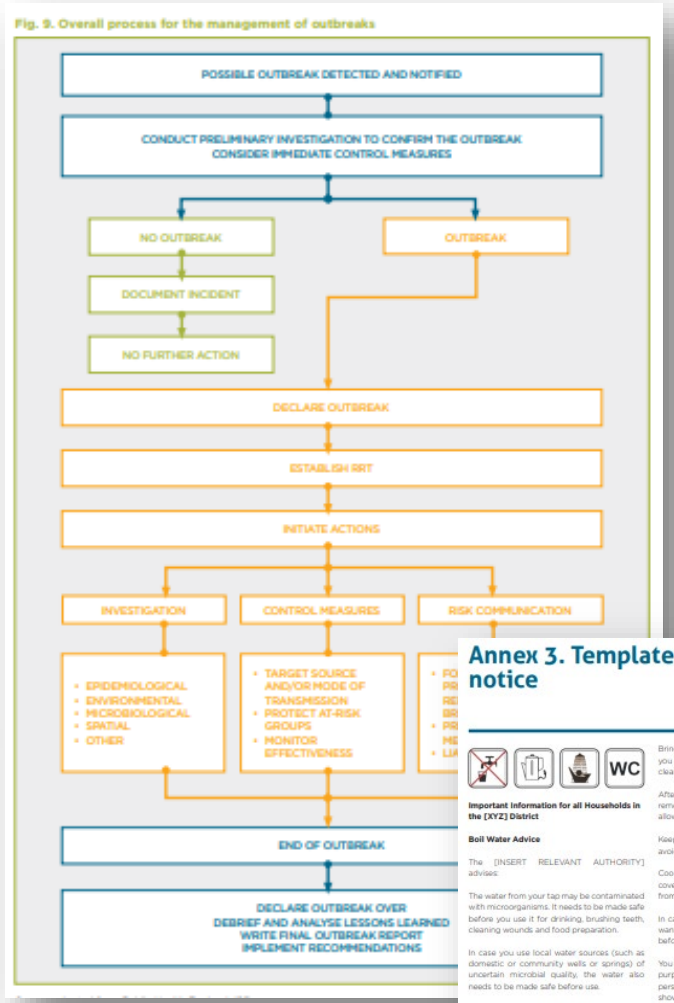


http://www.euro.who.int/en/health-topics/environment-and-health/water-and-sanitation/publications/2019/surveillance-and-outbreak-management-of-water-related-infectious-diseases-associated-with-water-supply-systems-2019

Output: new publication on WRID







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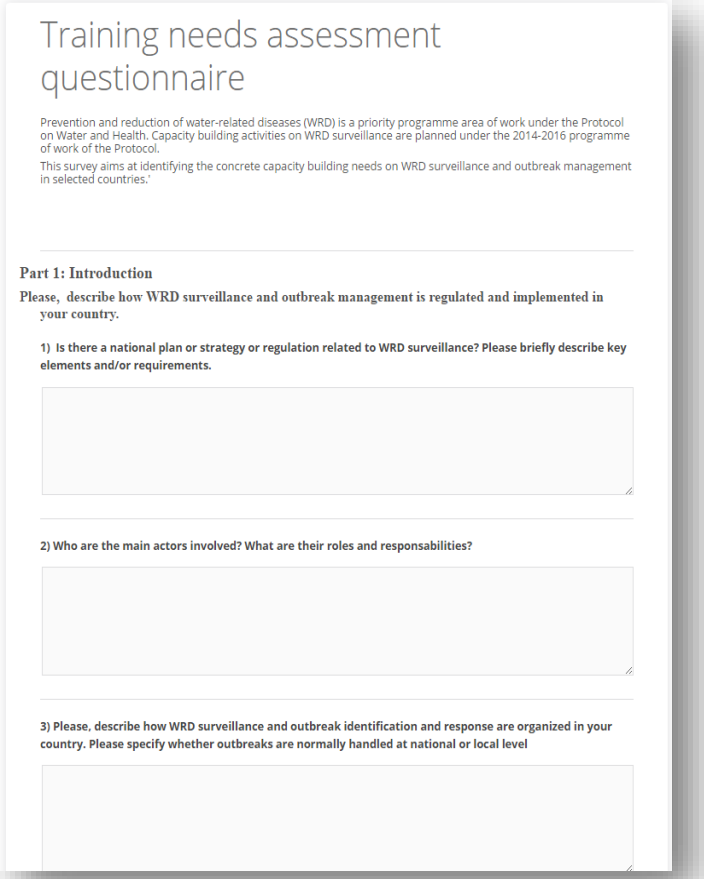
Capacity building

- **National workshops**:
  - Kyrgyzstan, 23– 25 May 2017,
  - Armenia, 4–6 June 2018
  - Azerbaijan, 8–10 October 2018
- **Objective:** to improve knowledge and skills of national professionals on surveillance and preparedness and response to waterborne outbreaks
- Electronic survey for **country needs assessment**
- **Scope** and **training material:** tailored to the needs
  - Risk-based surveillance of drinking-water quality
  - WRD and outbreak surveillance and response systems
  - Outbreak management: detection, investigation and control, including risk communication
  - Country examples
  - Interactive group works on outbreak scenario



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 responsabilities?

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

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Capacity building

Methods used:

- Lectures
- Group work
- Case study
- Practical computer tool session
- Plenary discussions

Armenia

Azerbaijan

Kyrgyzstan

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Capacity-building: lessons learnt

- Lessons from first five workshops:
  - Needs assessment survey helped in designing the country specific training programme
  - Useful to share country experiences and practical examples
  - Countries identified gaps and strengths through the discussions and group exercises
  - Stand-alone trainings or integrated with surveillance of drinking-water quality
  - Evaluate impacts at national and local levels.

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Major milestones since 2017 and outcomes
Drinking water water quality surveillance

- First Expert Group meeting (Minsk, 13-14 February 2017):
  - Countries needs, concept and scope, target audience and key messages
  - Structure, format and case studies
- Drafting the guidance document on risk-based surveillance of drinking-water quality
  - Support by the University of Surrey, lead Parties, independent experts and WHO Secretariat
  - Peer review by experts
- Core group meeting (Guildford, London, May 2019):
  - "Pinning" of key messages and content
- Professional editing, lay-out, translation and printing

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Output: new publication on risk-based approaches

- Provides a rationale for decision-makers
- Promotes uptake of risk-based approaches to drinking water quality surveillance in legislation and practice
- Emphasizes six key messages
- Illustrated by cases from member states with different context and challenges

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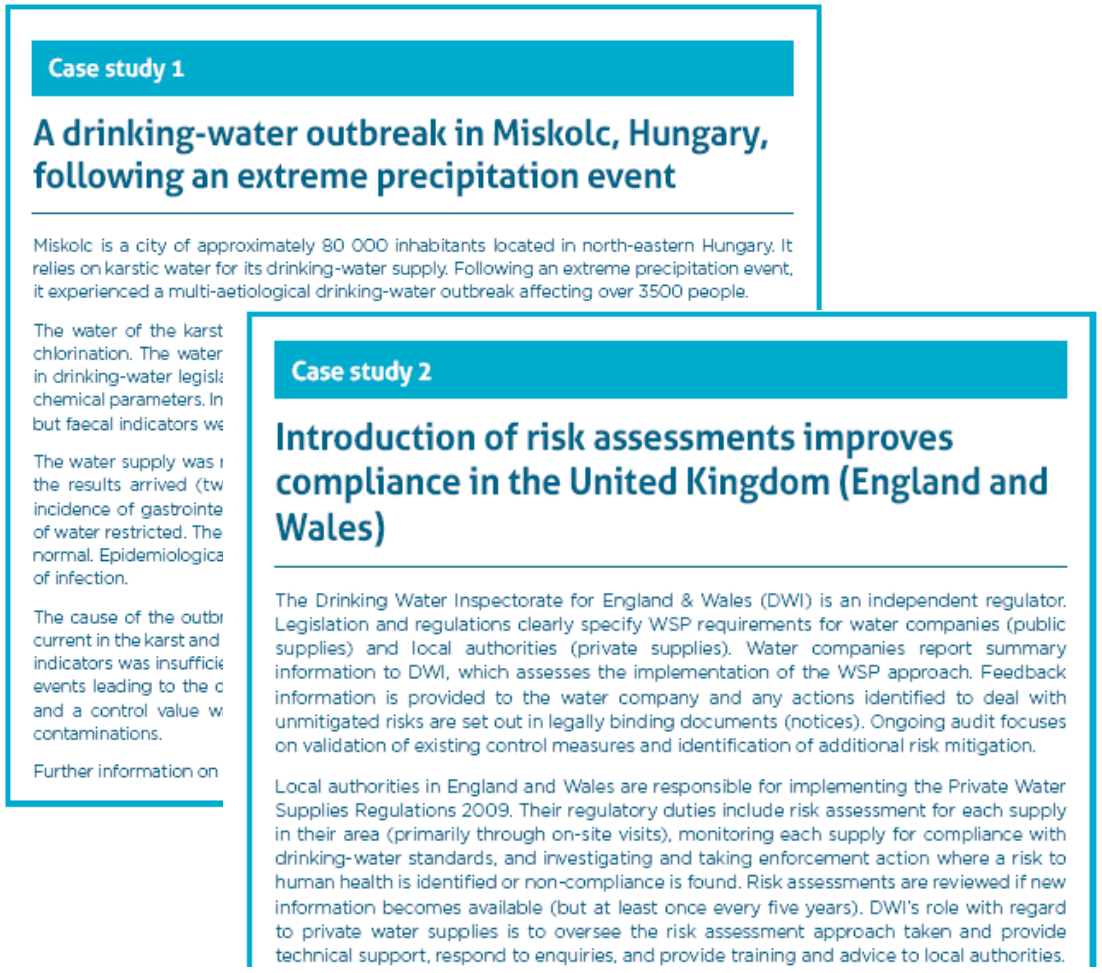
Output: new publication on risk-based approaches

Key message 1:	Surveillance is a core public health function
Key message 2:	Risk-based surveillance is a governmental responsibility
Key message 3:	Risk-based surveillance points at what needs to be looked at
Key message 4:	Microbiological drinking-water quality is a key focus of risk-based surveillance
Key message 5:	Only monitor what is necessary
Key message 6:	Risk-based surveillance aids forward-thinking and anticipation of change



Case study 1

A drinking-water outbreak in Miskolc, Hungary, following an extreme precipitation event

Miskolc is a city of approximately 80 000 inhabitants located in north-eastern Hungary. It relies on karstic water for its drinking-water supply. Following an extreme precipitation event, it experienced a multi-aetiological drinking-water outbreak affecting over 3500 people.

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Case study 2

Introduction of risk assessments improves compliance in the United Kingdom (England and Wales)

The Drinking Water Inspectorate for England & Wales (DWI) is an independent regulator. Legislation and regulations clearly specify WSP requirements for water companies (public supplies) and local authorities (private supplies). Water companies report summary information to DWI, which assesses the implementation of the WSP approach. Feedback information is provided to the water company and any actions identified to deal with unmitigated risks are set out in legally binding documents (notices). Ongoing audit focuses on validation of existing control measures and identification of additional risk mitigation.

Local authorities in England and Wales are responsible for implementing the Private Water Supplies Regulations 2009. Their regulatory duties include risk assessment for each supply in their area (primarily through on-site visits), monitoring each supply for compliance with drinking-water standards, and investigating and taking enforcement action where a risk to human health is identified or non-compliance is found. Risk assessments are reviewed if new information becomes available (but at least once every five years). DWI's role with regard to private water supplies is to oversee the risk assessment approach taken and provide technical support, respond to enquiries, and provide training and advice to local authorities.

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Challenges and lessons learnt for future work

- Surveillance of waterborne diseases is important – but challenging
  - underreporting, diagnostic capacity, many aetiologies, different sources (food, animals, water, person)
- The context and need for capacity building varies among the member states
- Long-term effects of training workshops – lead to a change in policies and practices
- Climate change can challenge water systems – need good systems to rapidly detect and investigate outbreaks
- Risk-based approaches in drinking water quality surveillance:
  - no “one answer”- consider local and supply specific risks
  - further disseminate the key messages
  - Interlinkage with other programme areas — is an added value
- Alignment with SDGs and other policy frameworks such as IHR can help gather political support

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Thank you for your attention

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