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The Pandemic Fund
FOR A RESILIENT WORLD



**World Health
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Manar Smagul

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Graduate of S.D. Asfendiyarov Kazakh National Medical University, Field Epidemiology Training Program (FETP)

CDC/CAR, highest category epidemiologist, Master of Health Organization and implementation of WHO global programs on IPC and AMR immunization, poliomyelitis, influenza, etc. in Kazakhstan. Member of the IPC and AMR National Technical Group in Kazakhstan. Member of the National Advisory Commission on Immunization in Kazakhstan



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IPC activities implemented by the National Center for Public Health



National Center for Public Health of the Ministry of Health of the Republic of Kazakhstan

Established in accordance with Resolution of the Government of the Republic of Kazakhstan of 22 January 2018 No.24 On Certain Issues of MOH RK by merging:

National Scientific and Practical Center for Sanitary and Epidemiological Expertise and Monitoring

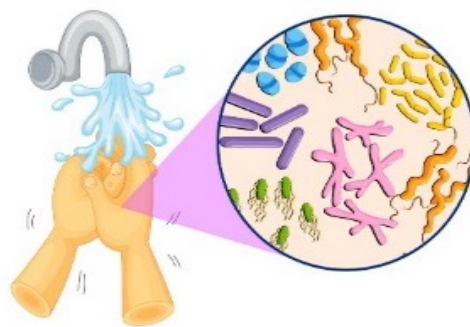
Hamza Zhumatov Scientific Center for Hygiene and Epidemiology

National Center for Healthy Lifestyle Development Issues

Strategic development areas of NCPH MOH RK



Healthy lifestyle promotion and NCD prevention measures improvement



Disease surveillance and prevention, public health emergency response



International partnership and research activity development



Workforce capacity building and ensuring financial sustainability



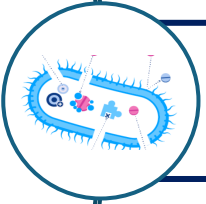
Implementation of public health strategic directions in the Republic of Kazakhstan



Roadmap for the Implementation of International Health Regulations and Global Health Security Agenda in the Republic of Kazakhstan for 2019-2023



Comprehensive Plan for the Improvement of the National Immunization System in the Republic of Kazakhstan for 2023-2025



Roadmap for the Measures to Contain Antimicrobial Resistance in the RK for 2023-2027



Infection Prevention and Control System Improvement Plan for 2022-2027



Roadmap for the Implementation of HPV vaccination in the RK for 2024-2025



WHO Global Call for Action on Infection Prevention and Control

I. Strengthening IPC in the healthcare system

- strengthening IPC advocacy: policy commitment
- availability of resources (human and infrastructure)
- IPC knowledge development:
 - create standardized curricula templates
 - adapt to adopt
 - stimulate research
- foster and promote IPC as a marker of quality: establish international IPC minimum standards
- create patient safety and quality improvement leadership
- ***Health workers across all disciplines should be engaged to advocate for IPC!***

II. Elevate the role of IPC specifically to better combat antimicrobial resistance(AMR)

- Improve **evidence** presentation to leaders: effectively outline available data and other information on the impact of IPC solutions on AMR
- expand the narrative: help people visualize how IPC programmes can lead to AMR risk reduction



WHO Global Call for Action on Infection Prevention and Control

Countries where IPC has just started

- Decisive and visible political commitment, including IPC policy development and enforcement
- Availability of resources (both human and infrastructure)
- Establishment and execution of IPC programmes at the national and acute health facility levels to ensure advocacy, training and data for future improvement and sustainability
- Action to increase availability of in-country IPC knowledge and expertise

Countries with advanced IPC programs

- Increased accountability with IPC as a quality indicator
- Development of advanced information technology tools to support IPC monitoring and implementation
- Translation of information through enhanced communications to sustain awareness and engagement
- Credible incentives considering the local context to increase compliance rates
- Enhanced education and training to embed IPC knowledge across all disciplines



Key IPC interventions and their implementation

- institutional strengthening, systematization and coordination of the national IPC system
- strengthening and improvement of the existing HAI surveillance system
- development and implementation of national guidelines, tools for practical IPC implementation at facility level
- creation of the national IPC education and training policy
- IPC system provision with the necessary infrastructure
- development and improvement of existing approaches to HAI monitoring and integration of the IPC monitoring and audit system with other information systems



Institutional strengthening of the national IPC system

- **NCPH designated as the coordinating center** for IPC activities implementation
- A National Technical Group for the implementation of the plan established
- **National IPC Focal Point** determined
- Introduction of amendments to the RK regulatory acts on IPC (orders of MOH RK No.151, 68, 62, 96)
 - introduction of standard HAI case definitions
 - annual review of IPC programs based on risk assessment at facility level
 - change in the PPE use policy (disposable and sterile gloves)
 - hand hygiene (hand hygiene types, indications, techniques, the use of sterile dry wipes for surgical hand scrubbing canceled)
 - change in the policy of routine surface and air sampling as part of internal production control;
 - sterilization and disinfection (sterilization process validation, disinfection requirements, pre-sterilization cleaning and endoscope sterilization)



IPC system improvement plan for 2022-2027 (draft)

Goal:

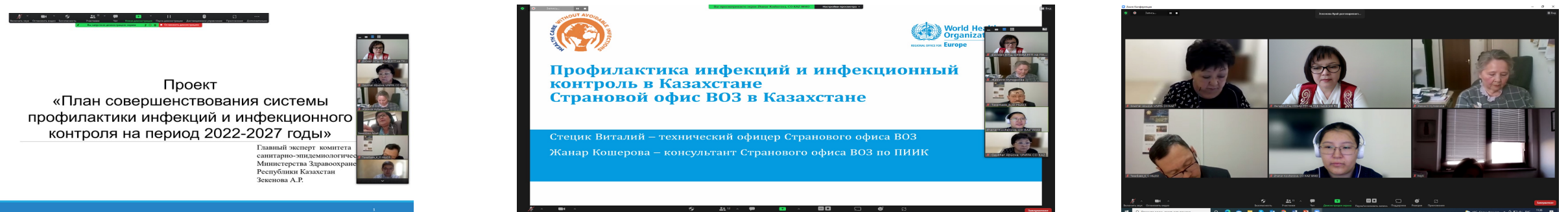
- Create an effective comprehensive evidence-based national infection prevention and control program by 2027

Expected outcomes

- assessment of the burden of HAIs and reduction of HAI prevalence in RK health organizations

Objectives:

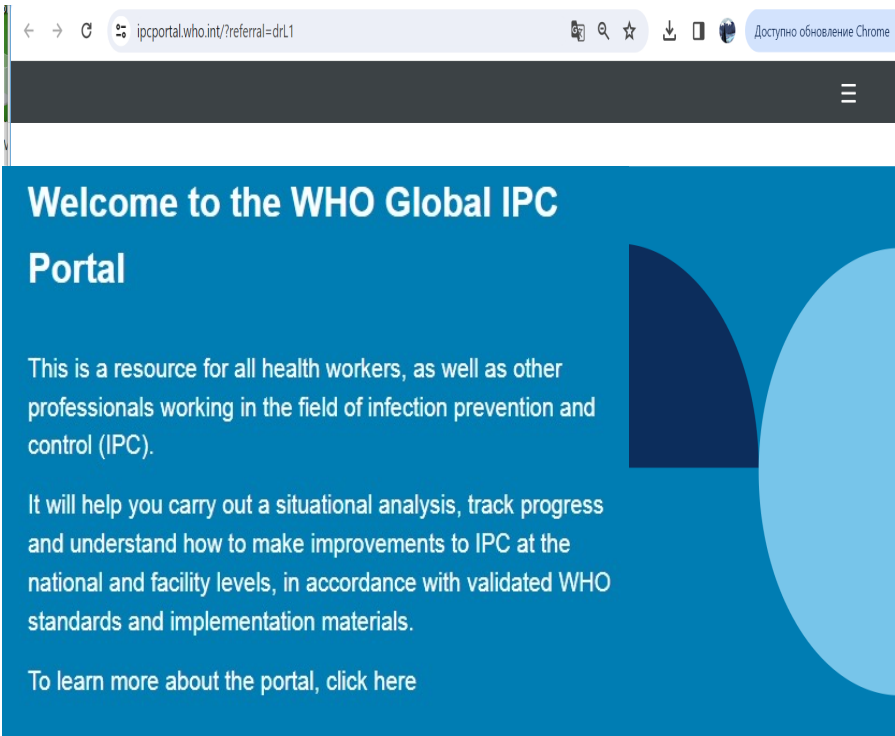
- Implement the IPC system strengthening plan (2022-2027)
- Develop and implement national guidelines and relevant tools (e.g. SOP, protocol, algorithm) for IPC practical implementation at facility level
- Create a unique IPC education and training policy
- Strengthen the existing HAI surveillance system by implementing the national HAI surveillance and IPC monitoring strategic plan
- Enhance the existing HAI monitoring approaches and integration of the IPC monitoring and audit system with other information systems





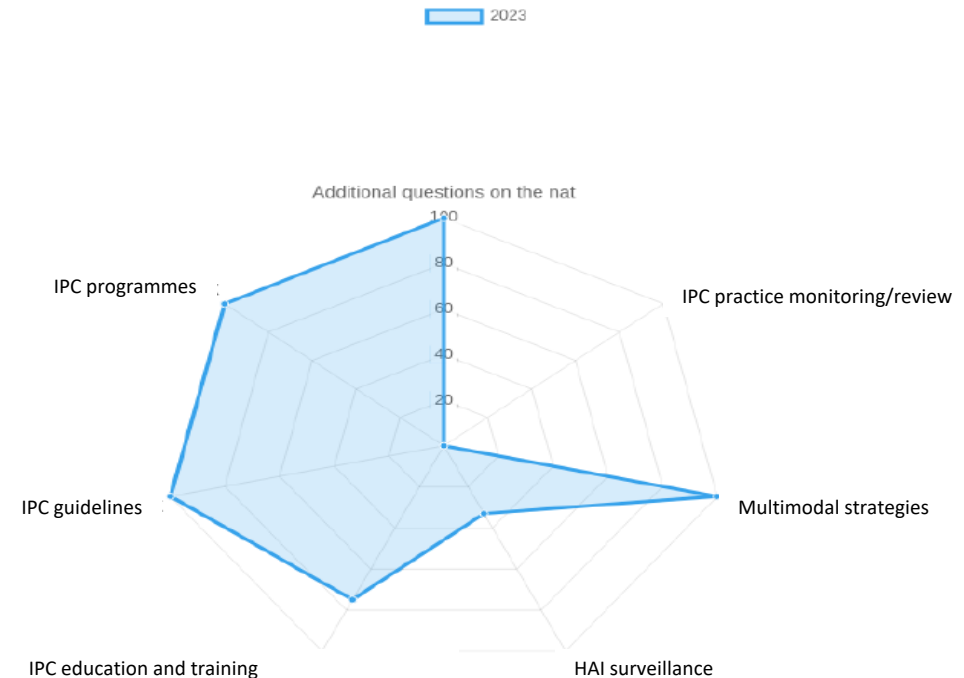
Strengthening and improvement of the existing HAI surveillance system

Kazakhstan participation in the WHO Global Survey on Minimum Requirements for IPC Programs at the National and Health Care Facility Levels, 2024

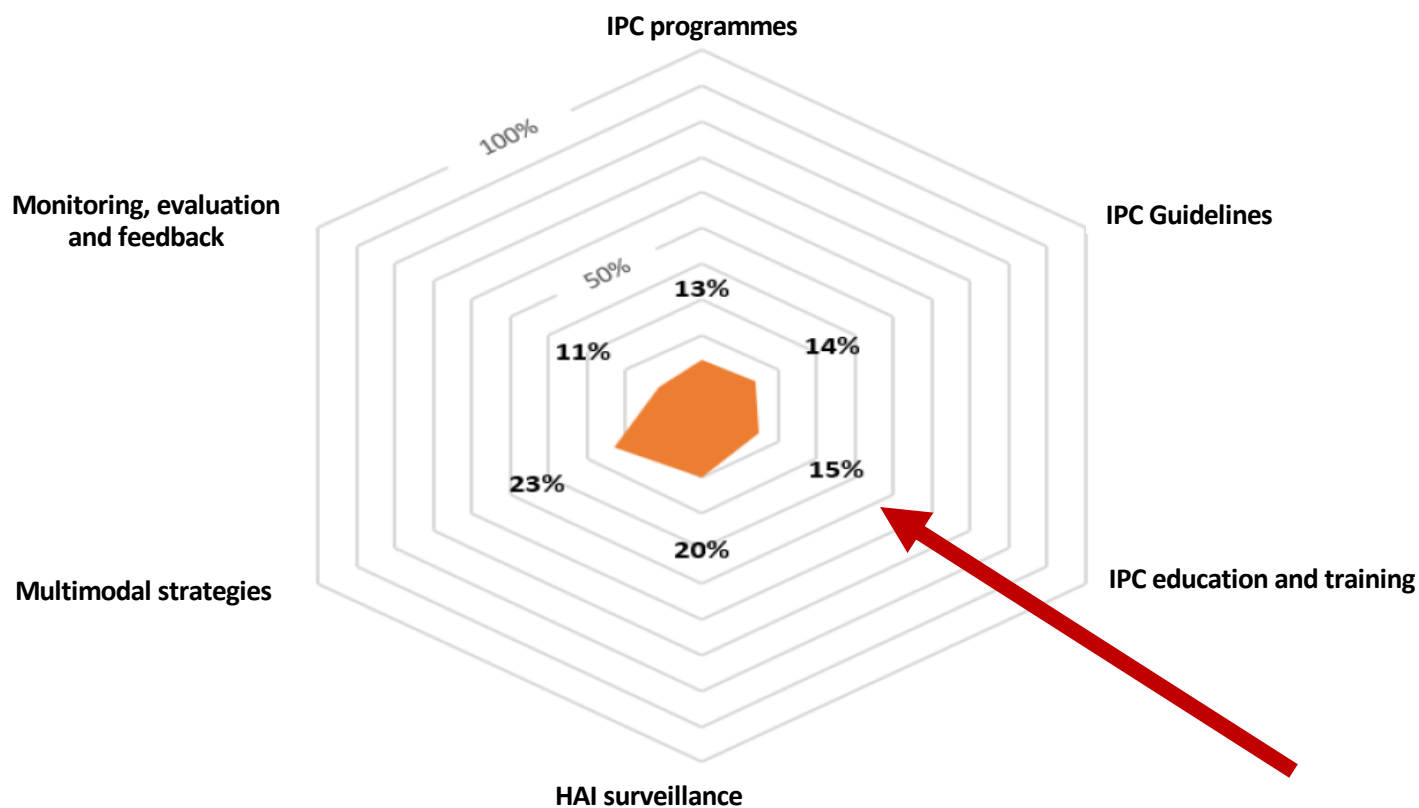


IPC productivity of the national Center for Public health MOH RK

This image shows your results on 7 main components of IPCAR MR, IPCAT MR



Case study: state of infection prevention and control in perinatal care in the Republic of Kazakhstan, 2019



- The existing IPC system was only 17.9% compliant with the WHO recommendations
- None of the components reached 25%
- The IPC system is fragmented and inefficient



Analysis of the status of the main components of the IPC, conducted by the ICAP Center at the Columbia University School of Public Health, USA, and the National Center for Public Health of the Ministry of Health of the Republic of Kazakhstan, August – October 2021

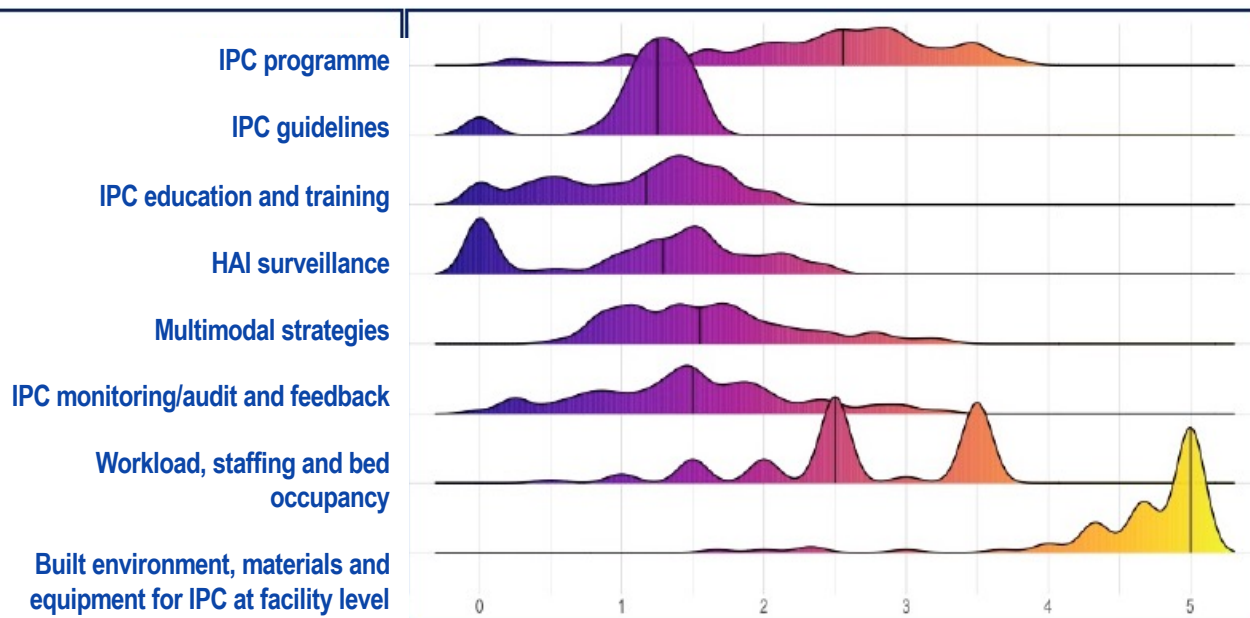
ОТЧЕТ

О РЕЗУЛЬТАТАХ СИТУАЦИОННОГО АНАЛИЗА ОСНОВНЫХ КОМПОНЕНТОВ ПРОГРАММ ПРОФИЛАКТИКИ ИНФЕКЦИЙ И ИНФЕКЦИОННОГО КОНТРОЛЯ НА УРОВНЕ МЕДИЦИНСКИХ ОРГАНИЗАЦИЙ В РЕСПУБЛИКЕ КАЗАХСТАН

ФЕВРАЛЬ 2022 | АЛМАТЫ



Chart 1. Summarized assessment of participating IPC hospitals by component (1 – the lowest score, 5 – the highest score)



Vertical lines – medians of all responses for each of the components; the heights of graphs depends on the number of hospitals with a given score



ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДА МЕДИЦИНАЛЫҚ ҮЙЫМДАР ДЕҢГЕЙІНДЕ ИНФЕКЦИЯЛАРДЫҢ АЛДЫН АЛУ ЖӘНЕ ИНФЕКЦИЯЛЫҚ БАҚЫЛАУ БАҒДАРЛАМАЛАРЫНЫҢ НЕПЕЗІ КОМПОНЕНТТЕРІ БОЙЫНША СИТУАЦИЯЛЫҚ ТАЛДАУ НӘТИЖЕЛЕРІ ТУРАЛЫ

ЕСЕП

АҚПАН 2022 | АЛМАТЫ ҚАЛАСЫ



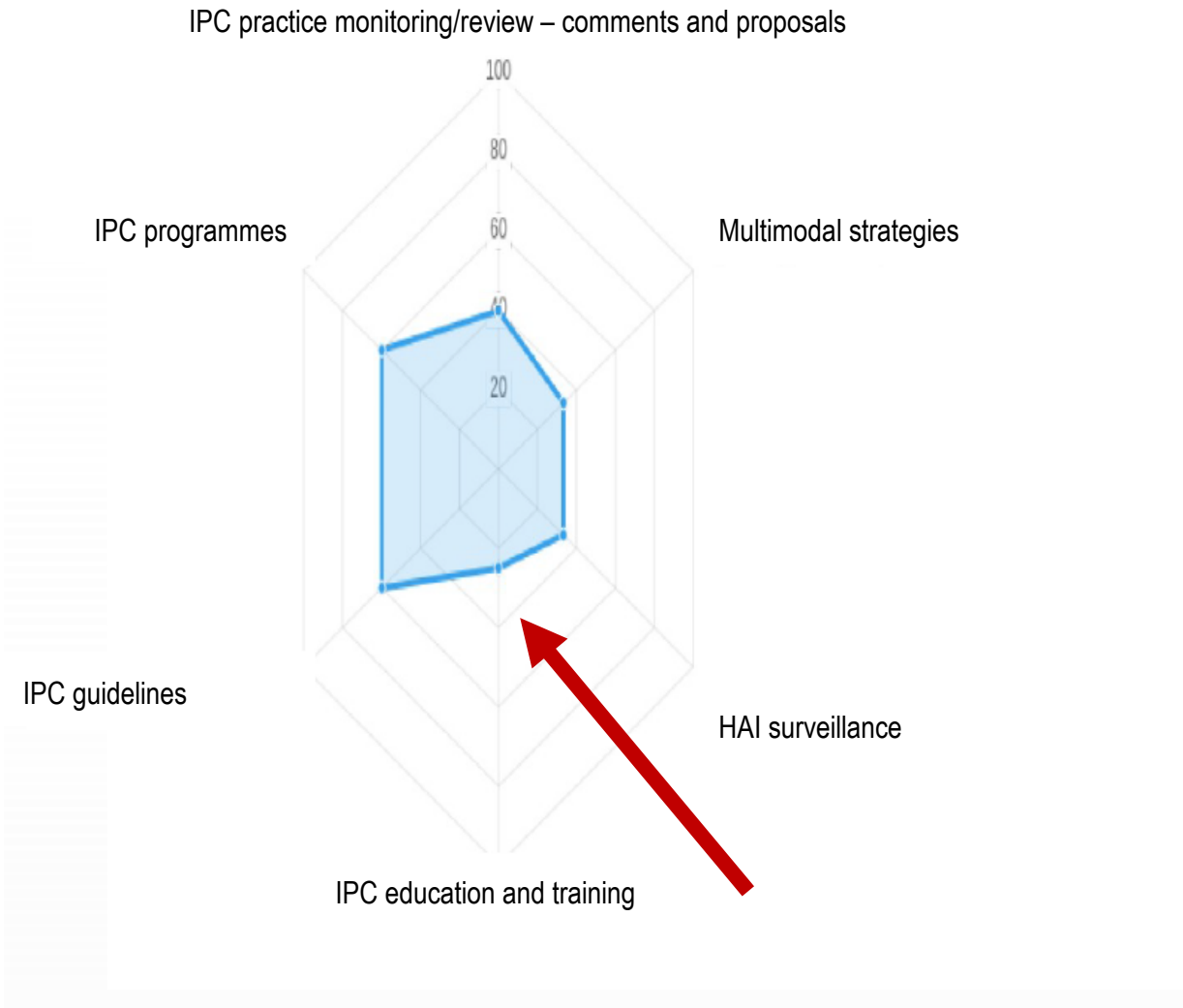
ОТЧЕТ

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ФЕВРАЛЬ 2022 | АЛМАТЫ



Results of IPC program implementation review at the national level in terms of the WHO minimum IPC requirements, 2021



Self-assessment at national and facility levels in the Republic of Kazakhstan, 2019 – aggregate results

	National level	Facility level (average)
Core component 1 – IPC programmes	45%	55%
Core component 2 – IPC Guidelines	42%	57,5%
Core component 3 – IPC education and training	40%	58%
Core component 4 – HAI surveillance	46%	58%
Core component 5 – Multimodal strategies	0%	14%
Core component 6 – IPC practice monitoring/audit, feedback and control	17%	69%
Core component 7: Workload, staffing and bed occupancy at the facility level	H/IT*	59%
Core component 8 – Built environment, materials and equipment for IPC	H/IT*	85%



Strengthening the HAI surveillance system

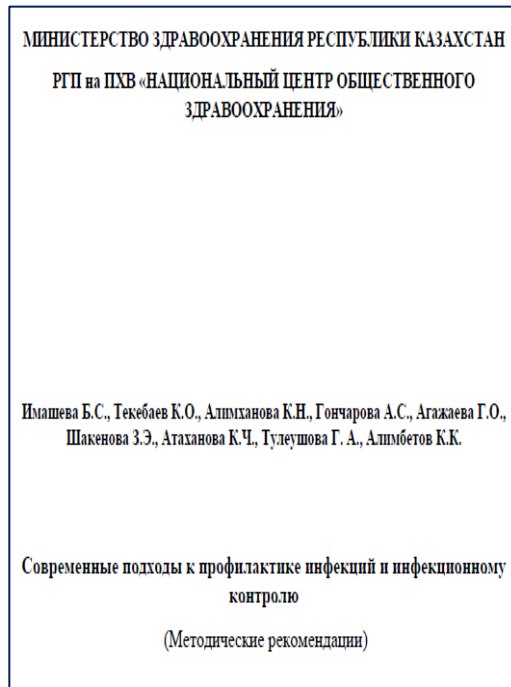
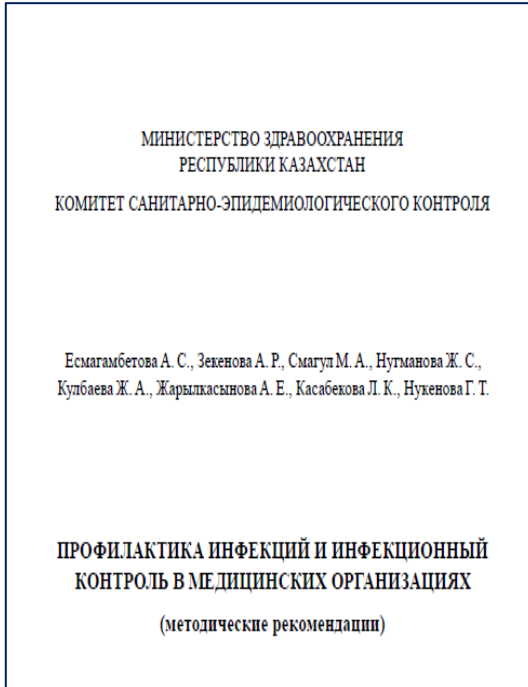
Results of Point Prevalence Survey of HAIs and antimicrobial use in the Republic of Kazakhstan, 2023

Indicator	Value
HAI prevalence, %	3%
Prevalence in high-risk units	19,1%
Prevalence of antimicrobial use, %	40,2%

Prevalence of patients with HAIs in the EU sampling was 7.1% (country range: 3.1–13.8%)



Development and implementation of national guidelines and tools for IPC practical implementation at facility level



- Methodological recommendations on HAI surveillance
- Methodological recommendations on IPC competencies

Projects:

- Decontamination guidelines
- Environmental cleaning and infection prevention and control in health care facilities





Creation of the national IPC education and training policy

- Round table on IPC pre- and post-graduate education development for the staff of health care facilities, 2024
- A workshop on the development of an infection prevention and infection control (IPC) educational program for students of clinical specialties of medical universities and VET “Basic aspects of IPC: healthcare-associated infections and antimicrobial resistance (AMR)” was held with the support of the ICAP Center at Columbia University (USA) School of Public Health in Kazakhstan (ICAP)
- Health worker training as part of 005 post-graduate program
- Health worker training as part of international cooperation with WHO, USAID, CDC, ICAP, UNICEF etc.



Creation of the national IPC education and training policy

- Community of practice on IPC performance improvement

Goal

Improve the capacity of specialists responsible for IPC coordination and monitoring

Objectives

Facilitate

- improved knowledge of IPC standards and best practices
- creation of opportunities for the development and implementation of projects to ensure the effectiveness of IPC interventions.
- exchange of experience and dissemination of innovations within the country and between medical organizations

Planning

Preparing materials and review of the experience of Community of Practice organization



Creating a register of participants

Identifying the list of mentors

Organizing meetings

Creating a WhatsApp chat

Sending invitations to meetings

Meeting participant survey

Preparing and presenting IPC materials

Discussing current issues



Creation of the national IPC education and training policy

Research and scientific activity at NCPH and support in health organizations

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JOURNAL ARTICLE

24,63. Bacterial Infections in Intensive Care Unit patients in a large general hospital, Kazakhstan, 2022

Ademi Yergaliyeva, MD, Saya Gazezova, Master of applied epidemiology, Gulzhan Ayappova, BS, Elvira Ibragimova, MD, Dilyara Nabirova, MD, MPH, PhD Candidate, Roberta Horth, PhD, MPH
Author Notes

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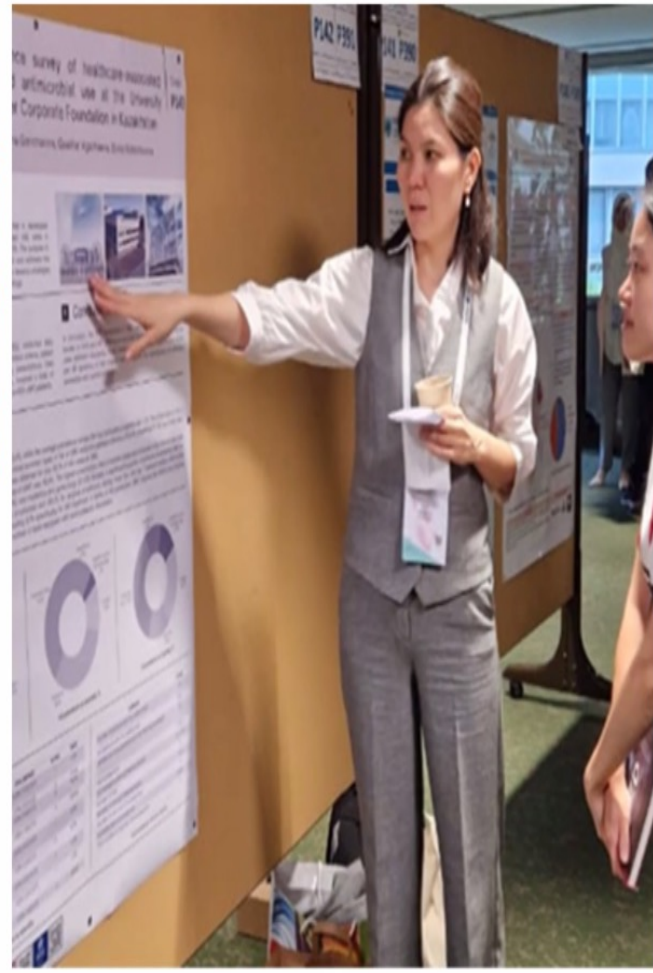
ABOUT ICPI 2023

The conference aims to provide a high-quality scientific program, allowing participants to learn from experts, engage in discussions, and network with colleagues

ICPIC2023

INTERNATIONAL CONFERENCE ON PREVENTION & INFECTION CONTROL

Geneva 12-15 September



Bacterial Infections in Intensive Care Unit Patients in a Large General Hospital, Kazakhstan, 2022

Ademi Yergaliyeva, Master of Applied Epidemiology, Gulzhan Ayappova, BS, Elvira Ibragimova, MD, Dilyara Nabirova, MD, MPH, PhD Candidate, Roberta Horth, PhD, MPH

BACKGROUND

Bacterial infections in intensive care unit (ICU) patients are a leading cause of morbidity and mortality. The aim of this study was to determine the prevalence and risk factors for bacterial infections in ICU patients in a large general hospital in Kazakhstan.

RESULTS

The study included 14 patients aged 18 years and older who were admitted to the ICU department in a tertiary care hospital. The prevalence of bacterial infections was 24.63%.

CONCLUSIONS

The identification of infectious pathogens with decreased drug resistance will allow the need for improved antibiotic control practices and the need for improved antibiotic stewardship.

RECOMMENDATIONS

Improved antibiotic control practices

Antibiotic stewardship programs include hand hygiene training and auditing, the use of IPC, restricted access to the intensive care units, improved cleaning of the high-risk area (surgery and intensive care) and general equipment for patients.

ACKNOWLEDGEMENTS

Ministry of Health of the Republic of Kazakhstan, National Center for Prevention and Control of Infectious Diseases of the Republic of Kazakhstan, Central Asia Field Epidemiology Training Program

CONTACT INFO

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FETIP Resident
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Almaty, Almaty, Kazakhstan

238. HAI: Surveillance, Saturday, 12:15 - 1:30 p.m.

Poster Session: HAI: Surveillance

(2463) Bacterial Infections in Intensive Care Unit patients in a large general hospital, Kazakhstan, 2022

Saturday, October 14, 2023 12:15 PM - 1:30 PM US ET Location: Hall B + C

Presenting Author(s)

Ademi Yergaliyeva, MD (she/her/hers)
FETIP Resident
Central Asia Field Epidemiology Training Program
Almaty, Almaty, Kazakhstan

UMC Point prevalence survey of healthcare-associated infections and antimicrobial use at the University Medical Center Corporate Foundation in Kazakhstan

Olga Yermakova, Aseel Zhusupova, Gulzhan Ayappova, Dilyara Nabirova

Introduction

The World Health Organization (WHO) reports that in developed countries, 10% of hospitalized patients acquire an infection while in the hospital. In Kazakhstan, the prevalence of healthcare-associated infections (HAIs) is 10.5%.

Methods

The study included 100 patients in the ICU, selected using a random sampling method. The prevalence of HAIs was 10.5%.

Results

The most common HAI was pneumonia, followed by urinary tract infections and bloodstream infections.

International Conference on Prevention and Infection Control 2023

Geneva, Switzerland 12-15 September 2023

Abstract

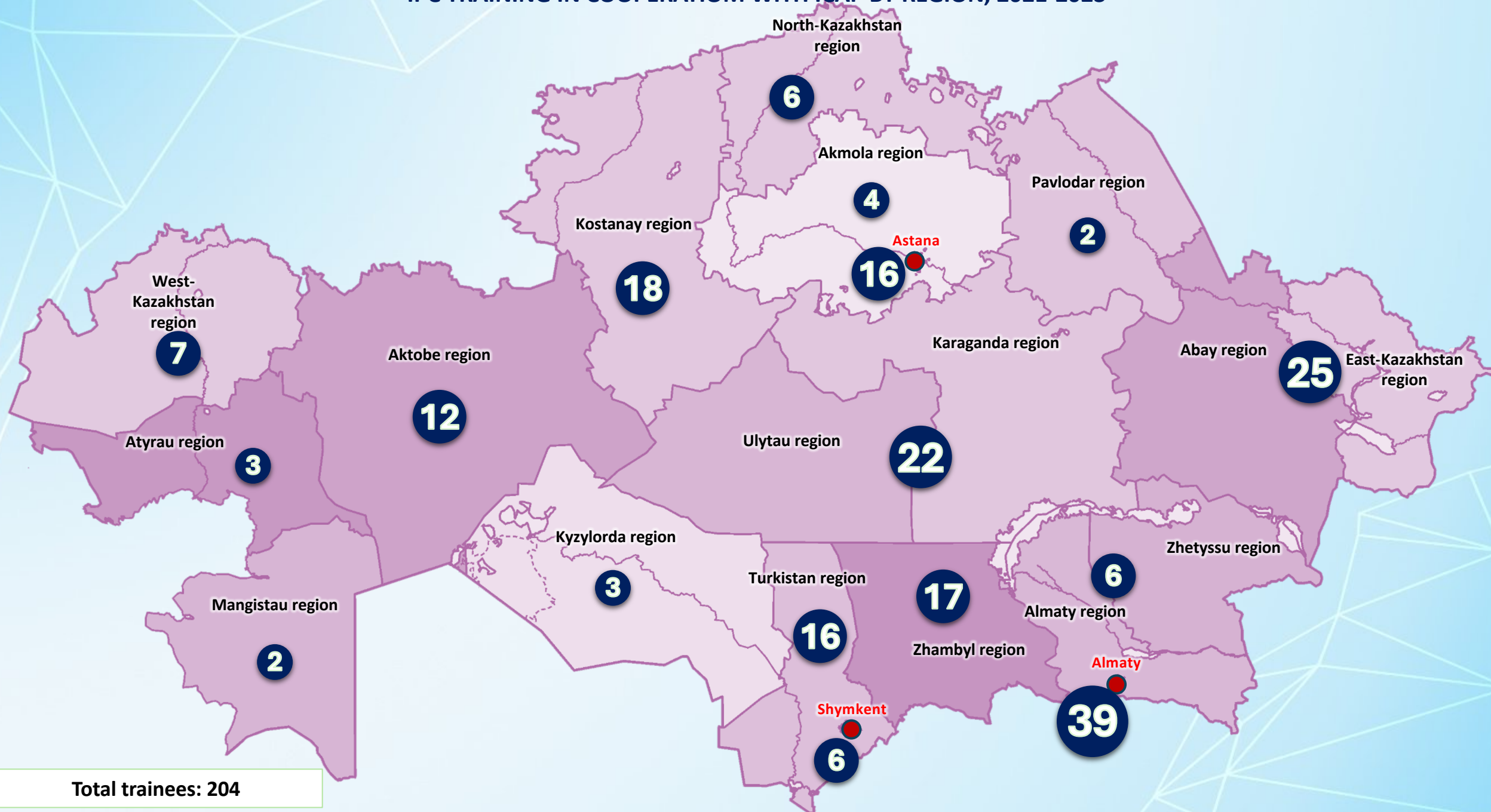
Background: The aim of this study was to determine the prevalence and risk factors for bacterial infections in ICU patients in a large general hospital in Kazakhstan.

Methods: The study included 14 patients aged 18 years and older who were admitted to the ICU department in a tertiary care hospital.

Results: The prevalence of bacterial infections was 24.63%.

Conclusions: The identification of infectious pathogens with decreased drug resistance will allow the need for improved antibiotic control practices and the need for improved antibiotic stewardship.

IPC TRAINING IN COOPERATION WITH ICAP BY REGION, 2021-2023



Total trainees: 204



Implementation of the School of Excellence in Infection Prevention and Control

Goal

- creating a pool of regional epidemiologists, IPC leaders
- IPC capacity building of regional health care facilities

Objectives

- assess health care facilities using the WHO IPCAF tool – schools of excellence
- strengthen the national IPC system
- establish a national IPC cooperation and training network

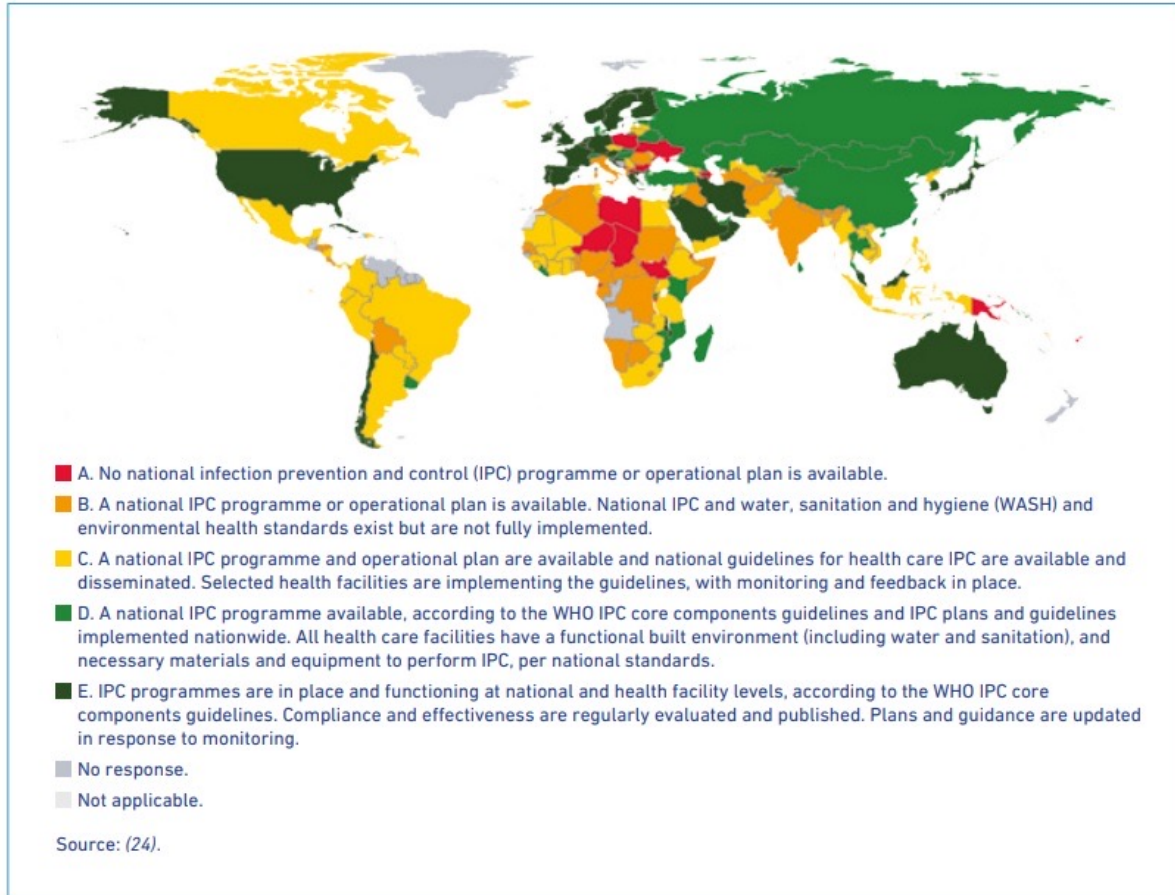




NCPH international cooperation on IPC and AMR



World Health Organization et al. Global report on infection prevention and control. – 2022.



The key IPC Programme outcomes in Kazakhstan:

1. The country has a functioning National CRP Program with a funded action plan in place
2. National IPC Guidelines ready for implementation
3. National IPC curriculum revised
4. National Point Prevalence Study of HAIs and Antimicrobial Use conducted

IPC improvement teamwork in Kazakhstan!





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Colleagues from the branch of the Scientific and Practical Center for Sanitary
and Epidemiological Expertise and Monitoring
AMR Interagency Group
Territorial department of CSEC MOH RK
Territorial Health Departments
Visiting hospital epidemiologists in all regions of Kazakhstan