World Health Organization

Instructions for the national infection prevention and control assessment tool 2 (IPCAT2)

Updated July 2017

Supporting national implementation through effective baseline assessment and evaluation

WHO/HIS/SDS/2017.13

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Contents

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IPCAT2 represents a revision of the World Health Organization (WHO) *Core components for infection prevention and control programmes: Assessment tools for IPC programmes* (2011), based on the 2016 WHO Guideline "Core Components of Infection Prevention and Control Programmes at the National and Acute Health Care Facility Level (http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/). The revision was coordinated by Benedetta Allegranzi (Department of Service Delivery and Safety, WHO) and led by Julie Storr (Department of Service Delivery and Safety, WHO). Sara Tomczyk (Department of Service Delivery and Safety, WHO) contributed to revision of the tool. Maki Kajiwara (Department of Service Delivery and Safety, WHO) provided IT support for the update of the Excel programme and Rosemary Sudan provided professional editing assistance.

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Abbreviations and acronyms used in the Updated instructions for the national infection prevention and control assessment tool 2 (IPCAT2) and accompanying Microsoft Excel assessment tool

AMR: antimicrobial resistance

CAUTI: catheter-associated urinary tract infection

CDC: Centers for Disease Control and Prevention

CLABSI: central line-associated bloodstream infection

GLASS: Global Antimicrobial Resistance Surveillance System

HAI: health care-associated infection

HCF: health care facility

HCW: health care worker

HMIS: health management information system

IPC: infection prevention and control

IPCAT2: infection prevention and control assessment tool (2017 version)

MDR: multidrug resistance

PAHO: Pan American Health Organization

PDR: pandrug resistance

PPE: personal protective equipment

TORs: terms of reference

UNICEF: United Nations Children's Fund

VAP: ventilator-associated pneumonia

WASH water, sanitation and hygiene

WHO: World Health Organization

XDR: extensive drug resistance

IPCAT2 – A key tool to accompany the Interim practical manual

Introduction

The objectives of the World Health Organization (WHO) *Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level* are[1]:

- to provide evidence-based recommendations on the core components of infection prevention and control (IPC) programmes that are required to be in place at the national and acute facility level to prevent health care-associated infection (HAI) and to combat antimicrobial resistance (AMR) through IPC good practices;
- to support countries and health care facilities to develop or strengthen IPC programmes and strategies through the provision of evidence- and consensus-based guidance that can be adapted to the local context, while taking account of available resources and public health needs.

WHO developed the *Interim practical manual* to support countries in the implementation of the recommendations outlined in the WHO *Guidelines on core components of infection prevention and control programmes*.[2] The interim manual outlines **five steps** for implementing IPC programmes at the national level in order to maximize the likelihood of success and overcome some of the process complexity. IPCAT2 and a simple checklist are two tools recommended during steps two and four, respectively. **Step two** involves conducting a **baseline assessment** to establish an understanding of the current situation, including strengths and weaknesses to guide action planning for improvement. **Step four** (evaluating impact) is concerned with assessing the effectiveness of the action plan.

Purpose of IPCAT2

IPCAT2 will assist countries to determine the core components already in place, that is, existing strengths, and to identify gaps or weaknesses to guide action planning. IPCAT2 corresponds to the six core component recommendations of the guidelines targeted at the national level.

It is very important to understand that IPCAT2 is not intended to be used as an audit tool. Its purpose is to help assess, plan, organize and implement a national IPC programme. The tool provides a general overview of the status of IPC activities according to the guideline recommendations, rather than focusing on specific IPC practices/risk factors related to individual patients or specific.

The main purpose of ICPAT2 is to support implementation, thereby providing a road map to guide IPC actions.

[1] Guidelines on core components of infection prevention and control programmes at the national and acute healthcare facility level. Geneva: World Health Organization; 2016 (http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/, accessed 12 June 2017).

[2] Interim practical manual supporting national implementation of the WHO guidelines on core components of infection prevention and control programmes. Geneva: World Health Organization; 2017 (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf?ua=1, accessed 12 June 2017).

Target audience
The assessment tool focuses on the national IPC programme in its support of acute health care facilities. However, as outlined in the WHO *Guidelines on core components for IPC programmes at the national and acute healthcare facility level*, the core principles and practices of IPC as a countermeasure to the development of HAI are common to any facility where health care is delivered. Therefore, IPCAT2 can be considered with some adaptations for national programmes as they concern community, primary care and long-term care facilities, in addition to acute healthcare facilities.

Description of the tool
The tool is designed in Microsoft Excel. Only basic features of the software are used to allow ease of use to translate the tools into different languages and adapt them to national requirements as needed. A printed version of the tool (annex 1) can be used when computer use is not feasible or possible. Of note, when the printed version is used, there is still a need to enter the data into the Excel workbook in order to calculate the scores and visualize the data. IPCAT2 workbooks include an **introduction** worksheet containing details of the assessor and institution, **six separate worksheets** for the six core components at the national level, and a **summary sheet** for data visualization.

Each component is divided into a number of sections with essential elements (indicators) of IPC programmes. Every element contains a yes/no statement. Any single element is either fully implemented (yes) or not (no). Any partially implemented or intermediate progress in achievement can be recorded in the comments' fields, as well as any additional information that may provide further clarification of the situation. A final field presents potential verifiers to guide the user in completing the tool.

Summary of scoring method
Yes is assigned if the element exists (is implemented, introduced, etc.)
No means the element does not exist/is not implemented.
All questions must be answered. Blank answers cannot be analyzed.

Illustrative example: How to complete each core component tab (figure 1)

Using **core component 1 (IPC programmes)** as an example, the data are entered directly into the worksheets.

- The title of a core component and the resulting score for the whole component are in the first row (73% in this example).
- The headings of the main fields and indicators are in subsequent rows.
- The indicators act as trigger questions for the assessor and require a yes (y)/no (n) answer.
- A **negative answer (no or n)** automatically highlights the element in **red** for easy reference.
- Referring to **Organization and leadership of the programme** (1.1) the score for this section is 63%.

1	**1**	**Infection prevention control (IPC) programmes***	**73%**
2		**Components for assessment (Red font=Gap or "N" response)**	**Score (Y or N)**
3	**1.1**	**Organization and leadership of the programme**	**63%**
4	1.1.1	An active IPC programme exists at the national level	y
5	1.1.2	An appointed infection preventionist(s) in charge of the programme can be identified	y
6	1.1.3	The appointed technical team of infection preventionist(s) includes both doctors and nurses	n
7	1.1.4	The appointed infection preventionist(s) have undergone training in IPC in the prevention of health care-associated infection (HAI)	y
8	1.1.5	The appointed infection preventionist(s) have dedicated time for the tasks (at least one full-time person)	n
9	1.1.6	The programme has been granted authority to make decisions that influence field implementation	y
10	1.1.7	There is an identified, protected and dedicated budget allocated according to planned activity	n
11	1.1.8	An official multidisciplinary group/committee or equivalent structure is established to support the IPC team at the national level (for example, national IPC committee)	y
12			

Figure 1: IPCAT2 example scoring

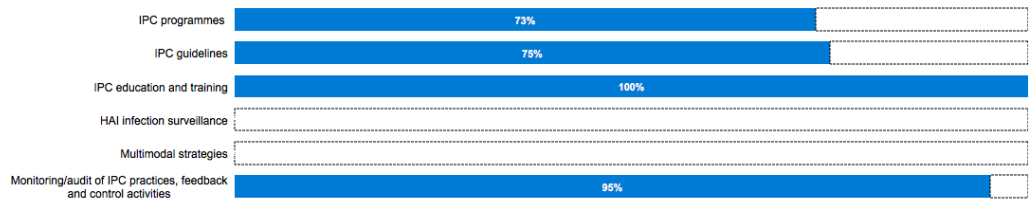
Evaluation scores are calculated automatically for every sub-component and every core component in total, resulting in a percentage score. There is also a field for **comments** and a field for potential **verifiers**, although the suggestions are not exhaustive and can be amended by the assessor.

Visualizing the results – the summary worksheet

The assessment measurements are summarized for all core components and major sub-components on a separate **summary page worksheet**. The data are provided in tables and visualized in radar charts (see example in Fig. 2 below).

Assessment of IPC core components at the national level - summary results

IPC programmes	73%
IPC guidelines	75%
IPC education and training	100%
HAI infection surveillance	0%
Multimodal strategies	0%
Monitoring/audit of IPC practices, feedback and control activities	95%



1 IPC programme

Elements	Score
Organization and leadership of the programme	63%
Defined scope of responsibilities	57%
Linkages with other programmes and professional organizations	100%

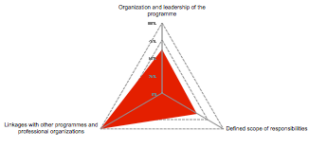


Figure 2. IPCAT2 summary worksheet.

Data to drive improvement
The IPCAT tools provide a quantitative evaluation of the different components of IPC programmes in a systematic way, allowing changes to be tracked over time. The resulting scores can be used to measure and monitor progress in implementing IPC programmes at the national level.

It should be emphasized that the calculated scores are only percentages that reflect the number of implemented core components. They should not be used for grading programmes/institutions and/or comparing them. A score below 100% simply means that there are certain elements of the IPC programme that are still to be implemented. As the intention is to highlight strengths and weaknesses so as to provide a snapshot of the current situation and support action planning, the scoring is not weighted. However, users of the tool may want to highlight within the summary worksheet those results that are considered a national priority and require particular attention.

In some instances where an IPC programme is in the process of being established, multiple gaps will be highlighted through the assessment. Using the example of core component 4, HAI surveillance, that comprises 30 indicators, it is likely that early stage implementers will not be able to answer 'yes' to a wide range of questions. In this instance, the results will be of value in directing subsequent action plans in support of a long-term approach to improvement.

The binary nature of the indicators allows for easy interpretation of the results.

Focus on self-assessment
IPCAT2 is intended to be used for self-assessment, but it can also be used for external assessment (interview). The self-assessment can be sufficiently objective if the responders fully realize **the purpose of the evaluation**, which is not to grade or to establish a position in a rating/ranking, but to identify strengths and weaknesses in order to effectively plan and implement improvement. To support assessment, one or more verifiers have been suggested for each indicator. However, these are just examples of sources of information that can be used to determine whether a certain indicator is present. IPCAT users are free to use other methods to establish the presence of indicators.

If an external assessment is planned, it is advisable to inform both the assessors and the interviewees in advance of what documents may be requested as verifiers.

Limitation of the tool
Although comprehensive, the full set of IPCAT2 tools are not exhaustive in their scope and they are not intended to be so. Other existing assessment/evaluation tools may be utilized when there is a need to evaluate a certain component of an IPC programme in greater depth. Several other WHO assessment tools related to IPC are listed below.

Feedback from users and further development of the tool
Comments and suggestions from ICPAT2 users will be collected. This will allow us to revise and update the tools regularly. Minor changes will be reflected in the Excel documents and major updates will be provided both in the Excel files and in the printed versions from time to time. Local development of the tool is encouraged, for example the Regional Office for the Eastern Mediterranean developed the infection prevention and control assessment tool (e-IPCAT, version 1.1) mobile application software (available via the iTunes App Store) based on the previous version of the IPCAT).

Other WHO IPC-related assessment tools

International Health Regulations' monitoring tools. Geneva: World Health Organization; 2017

(http://www.who.int/ihr/procedures/monitoring/en/, accessed 12 June 2017).

Water and sanitation for health facility improvement tool (WASH FIT). A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities. Geneva: World Health Organization/UNICEF; 2017 (http://www.who.int/water_sanitation_health/publications/water-and-sanitation-for-health-facility-improvement-tool/en/, accessed 12 June 2017).

Water and sanitation for health facility improvement tool: mobile version (WASH FIT Mobile). Geneva: World Health Organization/UNICEF; 2017 (https://washfit.org/#/, accessed 12 June 2017).

WHO hand hygiene self-assessment framework. Geneva: World Health Organization; 2010 (http://www.who.int/gpsc/country_work/hhsa_framework_October_2010.pdf?ua=1, accessed 12 June 2017).

WHO national infection prevention and control core component checklist (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf?ua=1 annex 2, pages 72-73, accessed 12 June 2017).

WHO tools for evaluation and feedback (hand hygiene). Geneva: World Health Organization; 2017 (http://www.who.int/infection-prevention/tools/hand-hygiene/evaluation_feedback/en/, accessed 12 June 2017).

Annex 1 Assessment tool for national IPC programmes

	Item for assessment	Yes/ No	Comments	Suggested verifiers
1	**Infection prevention control (IPC) programmes***			
1.1	**Organization and leadership of the programme**			
1.1.1	An active IPC programme exists at the national level			*Interview or national IPC programme/work plan, website*
1.1.2	An appointed infection preventionist(s) in charge of the programme can be identified			*Interview or national IPC programme/work plan, website*
1.1.3	The appointed technical team of infection preventionist(s) includes both doctors and nurses			*Interview or national IPC programme/work plan, website*
1.1.4	The appointed infection preventionist(s) have undergone training in IPC in the prevention of health care-associated infection (HAI)			*Interviews, training certificates or equivalent*
1.1.5	The appointed infection preventionist(s) have dedicated time for the tasks (at least one full-time person)			*Interview & check of TORs*
1.1.6	The programme has been granted authority to make decisions that influence field implementation			*Document signed by most responsible national authority*
1.1.7	There is an identified, protected and dedicated budget allocated according to planned activity			*An official document or budget summary*
1.1.8	An official multidisciplinary group/committee or equivalent structure is established to support the IPC team at the national level (for example, national IPC committee)			*A national IPC programme/work plan*
1.2	**The scope of IPC responsibilities is defined and includes**			
1.2.1	Development of national policies, guidelines and standards for effective, evidence-based practices			*Interviews and a national IPC programme/work plan*
1.2.2	Development of a national plan for preventing HAIs relating to endemic pathogens and those with epidemic potential, for example, including national goals, objectives and strategies			*Interviews and a national IPC programme/work plan*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
1.2.3	Development of national monitoring frameworks to measure implementation with policies, guidelines and standards			*Interviews and a national IPC programme/work plan*
1.2.4	Development and support of IPC training and educational programmes to support the facility level			*Interviews and a national IPC programme/work plan*
1.2.5	Surveillance and epidemiology of HAI and HAI-related aspects of antimicrobial resistance (AMR) in collaboration with epidemiologists, data managers and information technology experts			*Interviews and a national IPC programme/work plan*
1.2.6	A national plan to support early detection of HAI outbreaks and prompt and effective response			*Interviews and a national IPC programme/work plan*
1.2.7	Assurance of national procurement of adequate supplies for IPC practices, including access to essential infrastructures, materials and equipment necessary for safe IPC practice			*Interviews and a national IPC programme/work plan*
1.3	**Linkages with other programmes and professional organizations - clear linkages (including routine communications) exist between IPC and:**			
1.3.1	Other national programmes, for example AMR, quality and safety, water, sanitation and hygiene, environment, tuberculosis, human immunodeficiency virus, immunization, maternal, child and adolescent health			*A national IPC programme/work plan & interviews with relevant departments*
1.3.2	Priority public health programs including integration of IPC with IHR & preparedness relating to public health emergencies			*A national IPC programme/work plan & interviews with relevant departments*
1.3.3	National referral laboratories and laboratory biosafety			*A national IPC programme/work plan & interviews with relevant departments*
1.3.4	Occupational health programmes			*A national IPC programme/work plan & interviews with relevant departments*
1.3.5	Patient associations/civil society bodies			*A national IPC programme/work plan*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
				& interviews with relevant departments
1.3.6	Scientific professional organizations (for example, IPC professional societies and other relevant medical, nursing and allied health professional societies)			*A national IPC programme/work plan & interviews with relevant departments*
1.3.7	Training establishments and academia			*A national IPC programme/work plan & interviews with relevant departments*
1.3.8	Relevant sub-national bodies, for example, provisional or district health offices			*A national IPC programme/work plan & interviews with relevant departments*
*For further information, please refer to page 11 of the WHO Guidelines on core components on infection prevention and control programmes at the national and acute healthcare facility level- (Good practice statement 1b: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 13-22 of Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)				
2	**IPC guidelines***			
2.1	**Development, dissemination and implementation of national technical guidelines**			
2.1.1	The IPC programme has a mandate to produce guidelines for preventing and controlling HAI			*A national IPC programme/work plan; URL/web link to guidelines if in the public domain*
2.1.2	The guidelines are for national coverage, including all acute health care facilities (both public and private)			*A national IPC programme/work plan*
2.1.3	The guidelines are reviewed at least every five years and updated to reflect the current evidence base			*A national IPC programme/work plan*
2.1.4	The development of guidelines involves the use of evidence-based scientific knowledge and international/national standards			*The guidelines & interview*
2.1.5	The IPC programme has the necessary expertise to develop national guidelines			*Interviews, training certificates or equivalent*
2.1.6	The IPC programme actively addresses guideline adaptation and standardization of effective preventive practices (standard operating procedures) and			*The guidelines & interview & national IPC programme/work plan*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	their implementation to reflect local conditions			
2.1.7	Guideline development involves early engagement of key stakeholders, including involvement of programmes closely linked to IPC (see section 1.3)			*The guidelines & interview & national IPC programme/work plan*
2.1.8	The IPC programme develops multimodal implementation strategies using available national/international implementation support packages			*The guidelines & interview & national IPC programme/work plan*
2.1.9	The IPC programme has the capability to ensure that the infrastructure and supply-related requirements to enable facility-level guideline implementation are in place/being addressed			*Interviews & national IPC programme/work plan*
2.2	**Education and training of relevant healthcare workers on IPC guidelines**			
2.2.1	The IPC programme supports and mandates a programme of health worker education and training on guideline recommendations across all facilities			*A national IPC programme/work plan & review of training materials*
2.2.2	The IPC programme supports and mandates a programme of health worker education and training on guideline recommendations at the pregraduate level			*A national IPC programme/work plan & review of training materials*
2.2.3	The IPC programme supports and mandates a programme of health worker education and training on guideline recommendations at the postgraduate level			*A national IPC programme/work plan & review of training materials*
2.3	**Monitoring of guideline adherence**			
2.3.1	A national system and schedule of monitoring and evaluation is in place to check on adherence with guideline recommendations, for example, at least annually			*The guidelines & interview*
2.4	**Minimum set of national guidelines**			
2.4.1	National guidelines are based on local priorities, frequency of practices and practices associated with the			*The guidelines & interview*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	populations most at risk of HAI			
2.4.2	Basic/essential guidelines have been developed based on/adapted from interntional standards**			*The guidelines & interview*
2.4.3	Specific guidelines to prevent the most prevalent HAIs (catheter-associated urinary tract infection, central line-associated bloodstream infection, surgical site infection, ventilator-associated infection) have been developed, depending on the context and complexity of care required			*The guidelines & interview*
	**For further information, please refer to page 12 of the WHO Guidelines on core components for infection prevention and control programmes at the national and acute healthcare facility level (recommendation 2: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 23-30 of Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)			
	**** Basic/essential guidelines include:** Standard precautions; decontamination; safe handling of linen and laundry; health care waste management; respiratory hygiene and cough etiquette; environmental cleaning; prevention of sharps injuries; hand hygiene; transmission-based precautions (including patient identification, placement and personal protective equipment); aseptic technique for invasive procedures (including surgery); device management for clinical procedures; sterilization and medical devices decontamination; safe handling of linen and laundry; health care waste management.			
3	**IPC education and training***			
3.1	**Supporting and facilitating IPC education and training at the facility level**			
3.1.1	The national IPC programme provides guidance and recommendations for in-service training at the facility level (for example, frequency, expertise required, requirements for new employee orientation, monitoring and evaluation approaches)			*National IPC plans and training curricula & interview*
3.1.2	The national IPC programme provides content and support for IPC training of all health workers at the facility level			*National IPC plans and training curricula & interview*
3.1.3	The national IPC programme provides content and support for other personnel that support health service delivery**			*National IPC plans and training curricula & interview*
3.1.4	The national IPC programme provides content and support			*National IPC plans, interview & training*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	for the training of IPC professionals to support competence development/development of an IPC career pathway			*certificates or equivalent*
3.1.5	The national IPC programme provides content and support to undertake national HAI surveillance			*National IPC plans and training, curricula & interview*
3.2	**National curricula and IPC training and education**			
3.2.1	National IPC curricula, developed (or under development) in collaboration with local academic institutions are available for pregraduate courses			*National IPC plans & curricula;*
3.2.2	National IPC curricula, developed (or under development) in collaboration with local academic institutions is available for postgraduate courses			*National IPC plans & curricula*
3.2.3	National curricula are informed by international curricula/networks and adapted to national needs and local resources			*National IPC plans & curricula*
3.2.4	National curricula are adapted to national needs and local resources			*National IPC plans & curricula*
3.2.5	IPC training is integrated into continuing medical, nursing and allied health professional education and training			*National IPC plans & interviews*
3.3	**Monitoring of IPC education and training**			
3.3.1	A national system and schedule of monitoring and evaluation is in place to check on the effectiveness of training and education, for example, at least annually			*National IPC plans and reports*
3.4	**Implementation of training and education**			
3.4.1	Standardized training tools in line with national guidelines and international standards to support implementation of curricula are available			*National IPC plans, training materials, interviews*
3.4.2	The national IPC training supports packages to promote the use of participatory and team- and task-based strategies			*National IPC plans, training materials, interviews*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
3.4.3	The national IPC training supports packages to promote the use of simulation			*National IPC plans, training materials, interviews*
3.4.4	The national IPC training supports packages to promote the use of multimodal strategies			*National IPC plans, training materials, interviews*
3.4.5	The national IPC training supports packages to promote the integration and embedding of IPC training within clinical practice and the training of other disciplines			*National IPC plans, training materials, interviews*
3.4.6	The national IPC training supports packages to promote the importance of involving patients or family members in facility-level training programmes			*National IPC plans, training materials, interviews*
	*For further information, please refer to page 12 of the *WHO Guidelines on core components for infection prevention and control programmes at the national and acute healthcare facility level*.(Good practice statement 3b: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 31-40 of *Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes* (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)			
	** Including cleaning of the facility, auxiliary service staff and administrative and managerial staff (for example, local authorities and hospital administrators/managers and executive leaders)			
4	**HAI infection surveillance**			
4.1	**Coordination of surveillance at the national level**			
4.1.1	A national HAI surveillance programme and network of facilities is established and supported (including financially) by governments and national authorities			*A national IPC programme/work plan*
4.1.2	The national IPC team is trained in HAI surveillance concepts and methods			*A national IPC programme/work plan*
4.1.3	The national IPC programme (or collaborating partner) leads are designated to coordinate the national HAI surveillance programme and network			*A national IPC programme/work plan*
4.1.4	The national IPC programme collects a representative sample of data on HAI at the country level or in selected regions according to feasibility, including the use of trained data collectors			*A national IPC programme/work plan & interview*
4.1.5	The national HAI surveillance			*A national IPC*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	programme links with AMR surveillance systems			*programme/work plan & interview*
4.1.6	The national HAI surveillance programme links with the national public health bodies responsible for International Health Regulations to ensure timely detection of outbreaks			*A national IPC programme/work plan & interview*
4.1.7	National HAI surveillance data are used for benchmarking purposes (for example, establishing baselines for comparison)			*A national IPC programme/work plan & interview*
4.2	**National objectives of surveillance are defined and include**			
4.2.1	Describing the epidemiology of HAI (that is, incidence and/or prevalence, type, aetiology, severity, burden of disease)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.2.2	Identification of risk factors, for example, high-risk populations, procedures and exposures			*A national IPC programme/work plan; surveillance guidelines & interview*
4.2.3	Early detection of outbreaks			*A national IPC programme/work plan; surveillance guidelines & interview*
4.2.4	Informing policy priorities			*A national IPC programme/work plan; surveillance guidelines & interview*
4.2.5	Assessment of the impact of IPC interventions			*A national IPC programme/work plan; surveillance guidelines & interview*
4.3	**Prioritized HAIs for surveillance are defined and include**			
4.3.1	Epidemic-prone infections (for example, norovirus, influenza, severe acute respiratory syndrome)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.3.2	Infections in vulnerable populations (for example, neonates, burn patients, intensive care unit patients, immunocompromised hosts)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.3.3	Infections that may cause severe outcomes			*A national IPC programme/work plan; surveillance guidelines & interview*
4.3.4	Infections caused by multidrug-resistant, extensive drug-resistant and pandrug			*A national IPC programme/work plan; surveillance*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	pathogens (for example, WHO priority/Global Antimicrobial Surveillance Systems**)			*guidelines & interview*
4.3.5	Infections associated with invasive devices or specific procedures (for example, intravascular devices, surgery, etc.)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.3.6	Infections that may affect health care workers in clinical, laboratory and other settings (for example, hepatitis B or C, human immunodeficiency virus, influenza)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.4	**Methods of surveillance are defined and include**			
4.4.1	Standardized active prospective data collection methods			*A national IPC programme/work plan; surveillance guidelines & interview*
4.4.2	Standardized case definitions of infections (including accurate denominators) informed by international standards, careful local expert consultation and validation			*A national IPC programme/work plan; surveillance guidelines & interview*
4.4.3	Systems to regularly assess data quality (for example, review of case report forms, microbiology results, denominator determination) and surveillance programme attributes (for example, sensitivity, specificity, user-acceptability)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.5	**Microbiology and laboratory support**			
4.5.1	The national IPC programme has microbiological support to monitor certain organisms (at least one national reference microbiology laboratory)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.5.2	Microbiological data on the aetiology and patterns of AMR (at least for prioritized HAIs, for example, most severe infections)			*A national IPC programme/work plan; surveillance guidelines & interview*
4.6	**Information is analyzed and timely feedback provided to all relevant stakeholders**			
4.6.1	Clear and regular reporting lines from facility to the national level are in place			*A national IPC programme/work plan; surveillance guidelines & interview*
4.6.2	National IPC programme has			*A national IPC*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
	a clear plan for data management and analysis at the national level			*programme/work plan; surveillance guidelines & interview*
4.6.3	National IPC programme provides timely feedback reports to relevant stakeholders on the national situation of HAI and special events			*A national IPC programme/work plan; surveillance guidelines, feedback reports & interview*
4.6.4	National IPC programme provides timely feedback reports to relevant stakeholders on outbreak management and control			*A national IPC programme/work plan; surveillance guidelines, feedback reports & interview*
4.6.5	National IPC programme provides timely feedback reports to relevant stakeholders on HAI caused by multidrug-resistant pathogens			*A national IPC programme/work plan; surveillance guidelines, feedback reports & interview*
4.6.6	HAI surveillance data are linked with available IPC and water, sanitation and hygiene monitoring data			*A national IPC programme/work plan & interview*
4.6.7	Feedback reports from the national level to relevant stakeholders contain both analyses and recommendations			*A national IPC programme/work plan; surveillance guidelines, feedback reports & interview*
	*For further information, please refer to page 13 of the *WHO Guidelines on core components for infection prevention and control programmes at the national and acute healthcare facility level*. (Recommendation 4b: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 41-49 of *Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes* (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)			
	**WHO priority organisms http://www.who.int/medicines/publications/WHO-PPL-Short_Summary_25Feb-ET_NM_WHO.pdf?ua=1			
5	**Multimodal strategies***			
5.1	**National and sub-national coordination in support of local implementation of IPC improvement interventions includes**			
5.1.1	A trained national IPC team, competent in implementation science and multimodal behaviour change strategies**			*Interview, training certificates or equivalent*
5.1.2	Promotion of multimodal strategies through the inclusion of the approach in the development of IPC guidelines, education and training			*National IPC plan; relevant guideline & interview*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
5.2	**National and sub-national facilitation in support of local implementation of IPC improvement interventions includes**			
5.2.1	Promotion of actions to ensure that the infrastructure/necessary supplies for IPC are in place (system change)			*National IPC plan; relevant guideline & interview*
5.2.2	Promotion of health care worker training and education relevant to IPC interventions is being implemented			*National IPC plan; relevant guideline & interview*
5.2.3	Promotion of the development of monitoring indicators (process or outcome) reflecting the IPC improvement interventions is being implemented, including provision of feedback data			*National IPC plan; relevant guideline & interview*
5.2.4	Promotion of the role of communications and reminders/awareness-raising resources relating to the IPC improvements is being implemented			*National IPC plan; relevant guideline & interview*
5.2.5	Promotion of organizational culture change			*National IPC plan; relevant guideline & interview*
5.3	**Programme and accreditation linkages include**			
5.3.1	Liaison between national IPC programme and quality improvement/quality and safety departments to promote multimodal strategies			*National IPC plan; meeting minutes & interview*
5.3.2	Liaison between national IPC programme and accreditation bodies to promote multimodal strategies			*National IPC plan; meeting minutes & interview*
5.4	**Evaluation of multimodal strategies includes**			
5.4.1	A system for regular reporting and evaluation on multimodal strategies across health facilities, including feedback			*National IPC plan; relevant guideline & interview*
	*For further information, please refer to page 14 of the WHO *Guidelines on core components for infection prevention and control programmes at the national and acute healthcare facility level*. (Recommendation 5b: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 50-59 of *Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes* (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)			
	** Multimodal strategies comprise measures to support implementation of IPC improvement interventions and commonly focus on: 1. System change 2. Training and education 3. Monitoring and feedback 4. Communications/reminders 5. Safety climate/culture change			

	Item for assessment	Yes/ No	Comments	Suggested verifiers
6	**Monitoring/audit of IPC practices, feedback and control activities***			
6.1	**Monitoring/audit and feedback framework for IPC is established at national level, including**			
6.1.1	A well-defined plan focusing on IPC outcomes, processes and strategies, with clear goals, targets and operational plans			*A national IPC programme/work plan, IPC indicators & interview*
6.1.2	IPC indicators integrated within national monitoring systems, for example, health management information system			*A national IPC programme/work plan, IPC indicators, HMIS (or equivalent) reports & interview*
6.1.3	Development of tools to collect information needed for monitoring/audit and feedback in a systematic way including the WHO hand hygiene self-assessment framework			*A national IPC programme/work plan, IPC indicators & interview*
6.1.4	National monitoring/audit and feedback activities aligned with equivalent activities at the local level (focused on core IPC indicators)			*A national IPC programme/work plan, IPC indicators & interview*
6.1.5	A mechanism to train national and local auditors is in place			*A national IPC programme/work plan, IPC indicators & interview*
6.1.6	Mechanisms to link/cross-reference IPC monitoring/audit data with available water, sanitation and hygiene monitoring data			*A national IPC programme/work plan, IPC indicators & interview*
6.2	**Monitoring/audit indicators are defined**			
6.2.1	Hand hygiene compliance monitoring and feedback is identified as a key national indicator, at the very least for reference hospitals			*A national IPC programme/work plan & interview*
6.2.2	All indicators are linked to the targets established by the national IPC work plan			*A national IPC programme/work plan & interview*
6.2.3	Core indicators include both process and outcome indicators (for example, focused on structures/infrastructure and the environment as well as practices of health care workers)			*A national IPC programme/work plan & interview*

	Item for assessment	Yes/ No	Comments	Suggested verifiers
6.2.4	A minimal set of core indicators for health care facilities in the country is defined			*List of indicators*
6.3	**Monitoring/audit and feedback process and reporting**			
6.3.1	Information on the monitoring/audit of national IPC goals and strategies is collected regularly			*Monitoring/audit reports*
6.3.2	Monitoring/audit of IPC activities and structures of health care facilities is conducted regularly			*Monitoring/audit reports*
6.3.3	Information collected is regularly analyzed and used to inform national decision making			*Monitoring/audit reports*
6.3.4	Evaluation of the performance of local IPC programmes is performed in an improvement-oriented institutional culture			*Monitoring/audit reports*
6.3.5	The IPC national programme facilitates facility-level self or peer evaluation against national standards/goals			*A national IPC programme/work plan & interview*
6.3.6	Regular reports of monitoring/audit results are provided to drive improvement action at the facility level as part of a multimodal strategy			*Monitoring/audit reports*
	*For further information, please refer to page 15 of the WHO Guidelines on core components for infection prevention and control programmes at the national and acute healthcare facility level. (Recommendation 6b: http://www.who.int/infection-prevention/publications/ipc-components-guidelines/en/) and pages 60-68 of *Interim practical manual supporting national implementation of the WHO Guidelines on core components on infection prevention and control programmes* (http://www.who.int/infection-prevention/campaigns/clean-hands/cc-implementation-guideline.pdf)			