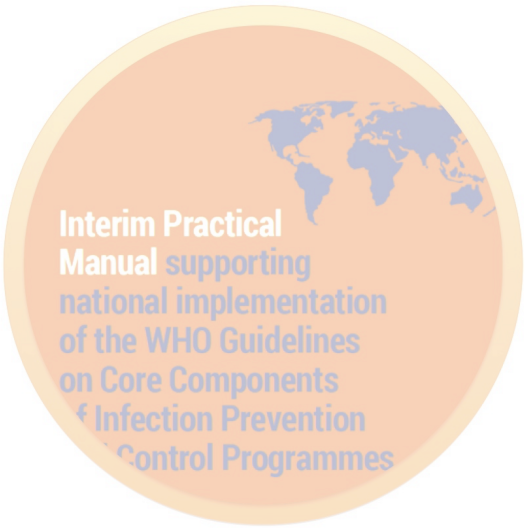
World Health Organization

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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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	**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
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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%