Summary Report: Hand Hygiene Self-Assessment Framework Survey 2015/2016

A report from the WHO Infection Prevention and Control Global Unit

World Health Organization

WHO/HIS/SDS/2016.7

Contents

Executive Summary

From June 2015 to January 2016, health care facilities worldwide were invited to participate in the World Health Organization (WHO) second survey based on completion of the Hand Hygiene Self-Assessment Survey (HHSAF).

A total of 807 health care facilities from 91 countries submitted completed HHSAF surveys to WHO. Among these, 86 facilities completed the HHSAF in 2011 and 2015. The largest number of participating facilities in the 2015-2016 survey were in Malaysia (150), followed by France (65) and Spain (49). Overall 30% of participating facilities were in Europe (the largest number by region).

The overall mean score reflected an *intermediate* level of progress, but very close to the upper limit of the range for this level (score 375) and close to the lower limit of the range for the *advanced* level, as defined by the WHO HHSAF. Most facilities were at *intermediate* or *advanced* levels (87.5%) of progress, with a high proportion qualifying for the leadership level (79%).

The lowest mean score for the HHSAF sections concerning the components of the WHO Multimodal Hand Hygiene Improvement Strategy was recorded in the African Region (280.9 $\pm$ 127.3), while the highest was in the South-East Asia region (420.6 $\pm$ 77.6), representing 60 and 231 health care facilities, respectively. Among these HHSAF sections, the lowest scores concerned evaluation and feedback on hand hygiene activities and the institutional patient safety climate.

Introduction

The HHSAF is a tool developed by WHO and currently used in many health care facilities worldwide to assess and track progress in hand hygiene improvement. It provides a systematic situational analysis of hand hygiene infrastructure, promotional and training activities, performance monitoring and feedback and institutional safety climate *(1)*. It is designed as a questionnaire and is structured in five sections based on the five components of the WHO Multimodal Hand Hygiene Improvement Strategy *(2)*. It includes 27 indicators reflecting the key elements of each strategy component and was tested in 26 facilities in 19 countries before being issued by WHO *(3)*. Each indicator is assigned a value adding up to a maximum of 100 points within each of the five sections. The maximum overall HHSAF score is therefore 500 points. Based on a facility's score, it is allocated to one of four levels of progress within the hand hygiene improvement continuum.

1. **Inadequate** (overall score 0-125): hand hygiene practices and hand hygiene promotion is deficient. Significant improvement required.
2. **Basic** (overall score 126-250): some measures are in place, but not to a satisfactory standard. Further improvement is required.
3. **Intermediate** (overall score 251-375): an appropriate hand hygiene promotion strategy is in place and hand hygiene practices have improved. It is now crucial to develop long-term plans to ensure sustained improvement and progress.
4. **Advanced** (overall score 376-500): hand hygiene promotion and optimal hand hygiene practices have been sustained and/or improved, thus helping to embed a culture of quality and safety around hand hygiene promotion in the health care setting.

Advanced facilities can undergo further assessment according to 20 additional criteria and can reach the **leadership** level if they satisfy at least 12 of these criteria.

In 2011, a first global survey was conducted by WHO and the results were summarized in a report in 2012 *(4)*. Similar to the 2015 survey, this was part of the *WHO SAVE LIVES: Clean Your Hands* campaign promotional activities.

The objectives of the global survey in 2015/16 were as follows:

- To assess the level of progress in a range of health care facilities in terms of hand hygiene infrastructure, promotional and training activities, performance monitoring and feedback and institutional safety climate, according to a range of indicators relevant to the WHO Multimodal Hand Hygiene Improvement Strategy.

- To motivate health care facilities to continue to track their progress against these indicators as part of their quality and safety agendas, and to provide feedback in support of this through summary results.

Hand hygiene is now recognized as a key quality indicator of health care *(5,6)*. This has been well demonstrated through reports of health care worker compliance with hand hygiene, the development of an organizational culture committed to progressing hand hygiene standards, as well as against outcome, i.e. health care-associated infections *(7)*. Preventing infections is also known to be cost effective, including appropriate hand hygiene actions at the point of care *(5)*. Other WHO reports have acknowledged also that many interventions to improve patient safety start with hand hygiene as a universally relevant intervention. If performed correctly and at the right time, hand hygiene can play a critical role in halting the spread and acquisition of microbes that cause health care-associated infections, including those caused by antimicrobial resistant microorganisms (*8,9)*.

The overall intention of this report is to alert and remind senior health care executives that tracking hand hygiene progress remains a priority, with these summary results acting as a proxy indicator of the global situation of quality of health care delivery.

Methods

Staring from June 2015, health care facilities were invited to submit their HHSAF results to WHO through a dedicated, protected website. They were informed that all data would be kept confidential and anonymised. Data were also submitted by email directly to WHO when difficulties occurred with online submission. Two professionals were allocated to undertake data entry and quality checking under senior WHO staff supervision.

The promotion of survey participation was channelled through the WHO *SAVE LIVES: Clean Your Hands* campaign using the regular newsletter and the website, including multiple mailshots to stakeholders known to the WHO infection prevention and control team, some of whom featured the survey in their own newsletters.

Professionals in charge of infection control or senior managers fully informed about hand hygiene activities within the facility were asked to complete the HHSAF by 31 January 2016. In addition, it was highlighted in communications that any completed HHSAF from any time in 2015 could be submitted in order to capture information from health facilities already using the HHSAF (but potentially unwilling to repeat completion of the survey).

Data quality was ensured through data cleansing, removal of duplicates and further quality cross-checking of manual data entries by two persons following an agreed process. Analyses were performed while keeping individual facilities' identity strictly confidential.

Summary of results of participating facilities

In total, surveys from 807 facilities in 91 countries were received during the survey period of June 2015 to January 2016. This is 47% of all 194 Member States. Table 1 provides an overview of the characteristics of the participating facilities in each WHO region, while Table 2 details the number of participating facilities per country.

ties participating in the WHO Hand Hygiene Self-Assessment Framework global survey

	Total	Region (2015 survey)					
		Africa	Americas	Eastern Medit.	Europe	South East Asia	Western Pacific
	91	15	14	13	29	16	4
acilities	807	60	181	41	246	231	48
%)							
	10 (11.0)	7 (46.7)	0 (0)	0 (0)	0 (0)	3 (18.8)	0 (0)
	41 (45.1)	8 (53.3)	11 (78.6)	6 (46.2)	5 (17.2)	10 (62.5)	1 (25.0)
	40 (43.9)	0 (0)	3 (21.4)	7 (53.8)	24 (82.8)	3 (18.7)	3 (75.0)
%)							
	10 (11.0)	7 (46.7)	0 (0)	0 (0)	0 (0)	3 (18.8)	0 (0)
	12 (13.2)	4 (26.7)	1 (7.1)	2 (15.4)	0 (0)	4 (25.0)	1 (25.0)
	29 (31.9)	4 (26.7)	10 (71.4)	4 (30.8)	5 (17.2)	6 (37.5)	0 (0)
	40 (43.9)	0 (0)	3 (21.4)	7 (53.8)	24 (82.8)	3 (18.7)	3 (75.0)
	541 (70.2)	28 (47.5)	100 (58.8)	28 (68.3)	163 (72.8)	187 (81.3)	35 (74.5)
	230 (29.8)	31 (52.5)	70 (41.2)	13 (31.7)	61 (27.2)	43 (18.7)	12 (25.5)
	194 (25.2)	27 (45.8)	54 (31.8)	12 (29.3)	55 (24.7)	32 (13.9)	14 (29.8)