

The Process and Pitfalls of Creating a Global Self-Assessment Tool

Alexandra Peters, PhD

Scientific Lead, Clean Hospitals
Institute of Global Health, University of Geneva,
Geneva, Switzerland

Hosted by Paul Webber
paul@webbertraining.com



www.webbertraining.com



**UNIVERSITÉ
DE GENÈVE**

September 17, 2024

With all the challenges in IPC...

...and if we know that the level of HEH is probably quite bad around the world because we've seen it with our own eyes...

Why bother focusing on a self-assessment?

You cannot improve what you can't measure!

What we knew at the beginning

- Healthcare environmental hygiene (HEH) is important for patient safety
- HEH is still VERY understudied and underfunded in most settings
- HEH is quite a low priority for most facilities
- The environmental services (EVS) workforce is often underpaid and not trained adequately
- There is often very little internal oversight of HEH programs
- There is often little understanding of the return of investment for improving HEH
- There is little information about how HEH is actually performed worldwide
- It is difficult to estimate the average burden of the healthcare environment on healthcare-associated infections

These issues make it difficult to improve HEH on a global scale; we simply don't know enough yet

The Question that started it all:

“How do healthcare facilities perform environmental hygiene around the world?”

Very little was known about the state of healthcare environmental hygiene around the world...

Why Self-Assess?

- HEH is important for patient safety
- HEH practices are very heterogeneous and very often lacking
- HCFs often do not prioritize HEH
- Guidelines are often lacking and there is little international standardization

International HEH Evaluation

According to decision makers, how do hospitals implement HEH programs?

- Based on quantitative email surveys
- Aim is to understand how HEH works around the world and in different resource and cultural contexts
- Goals were to find universal themes and categories to support and improve, and develop the HEHSAF



In short:

Announcement: We've spent the last 4 years developing and validating a tool for assessing healthcare facility environmental hygiene programs!

Purpose: To identify areas for improvement in healthcare facilities

Target population: For global use



But first...

Let's look a bit more into healthcare environmental hygiene (HEH) in general

The Journey

We know there is a problem, but there is little available information about its extent...

Until more is known about the scope, it will be difficult to tackle.

In order to improve HEH globally, we first need to:

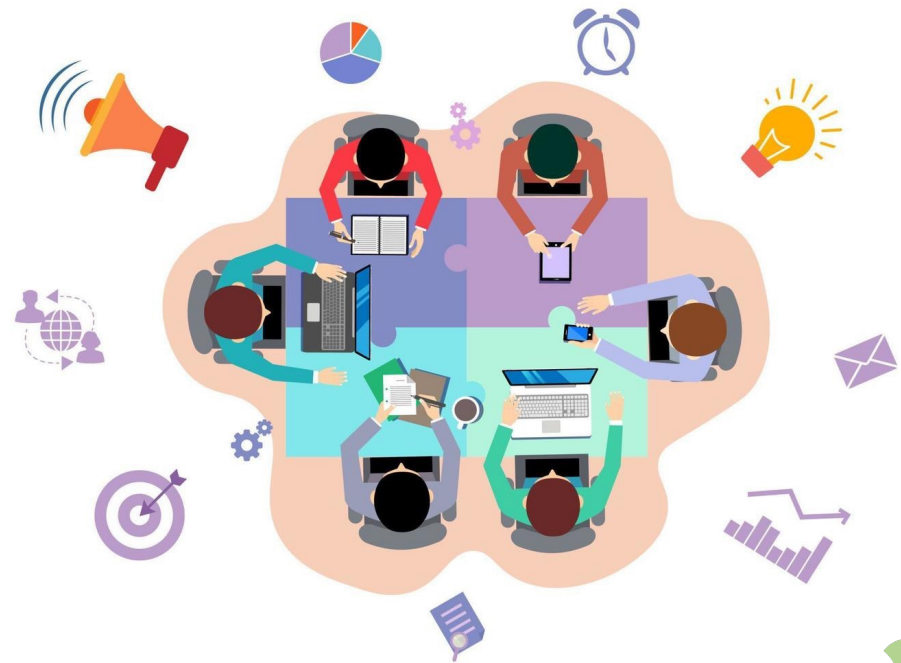
- **Assess the level and need**
- **Understand how it is being performed**

This was the goal of developing the HEHSAF



Development of the HEHSAF Part 1: The Pilot Survey

- Developed with the Clean Hospitals working group and representatives from partner hospitals
- Focused on both the technical and human elements of HEH
- Based on the Multimodal Improvement Strategy



Theoretical Framework: The Hand Hygiene Multimodal Improvement Strategy

1. System change
2. Training & Education
3. Monitoring & Feedback
4. Workplace Reminders
5. Institutional Safety Climate

- Developed in Geneva
- In use for Hand Hygiene promotion since 2009
- The basis of three WHO global surveys since, with thousands of hospitals involved



The Last 25 Years Have

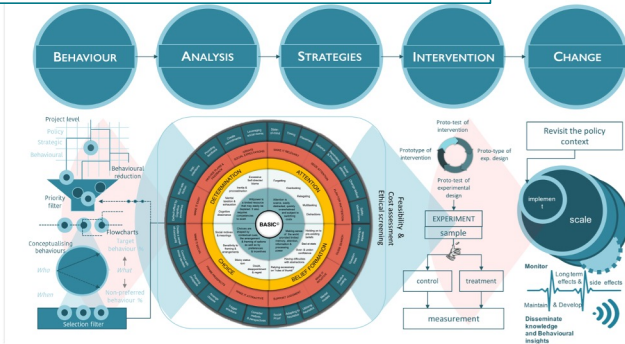
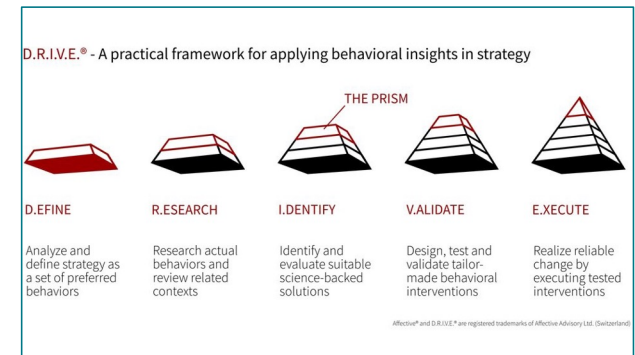
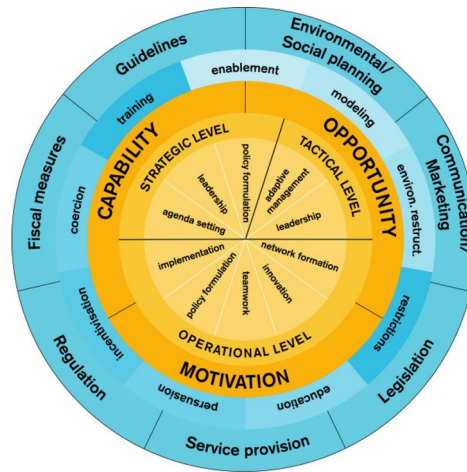
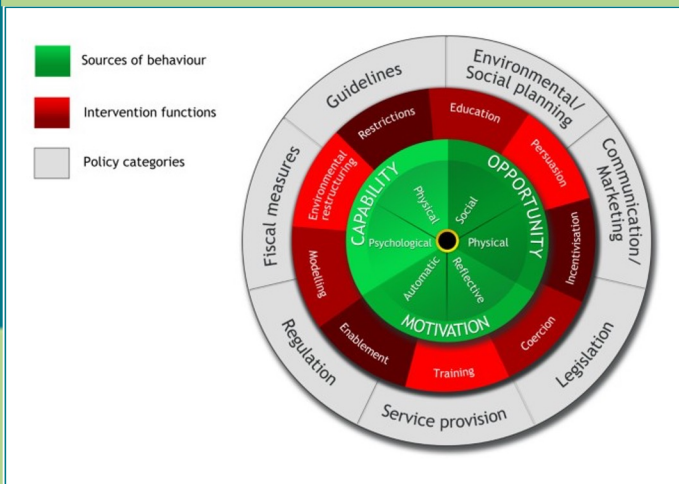
- Shown that global change is possible for hand hygiene
&...
- Given us a blueprint for how to replicate the model for environmental hygiene
 - Multimodal strategy
 - Adapt to Adopt
 - Self-assessment framework and associated tools
 - Awareness raising
 - Support a scientific approach to HEH



The Multimodal Improvement Strategy Regarding Healthcare Environmental Hygiene

- **System change**- access to necessary products and supplies
- **Training and education**- of EVS staff, managers, and raising awareness for other healthcare staff and administration
- **Monitoring and feedback**- of performance how clean is clean, and optimizing feedback for improving performance
- **Workplace reminders**- safety posters, events, etc.
- **Institutional safety climate**- career advancement, ability to communicate with nursing staff and up the hierarchy

There Are Other Behavior Change Strategies



But the multimodal improvement strategy is simple and validated globally in IPC

Keep In Mind:



- The multimodal strategy is not just for evaluation but also for implementation
- An increasing number of interventions and studies in HEH are multimodal in nature
- Many studies bundle some of the 5 components of the multimodal improvement strategy into a single complex intervention

Preparation



Tip: Take a course on how to design surveys!

Lots of free ones available:



The screenshot shows the Coursera website interface with search results for 'survey'. The top navigation bar includes 'For Individuals', 'For Businesses', 'For Universities', and 'For Governments'. The search bar contains 'survey' and the Coursera logo. On the left, there are filters for 'Business (187)', 'Health (67)', 'Computer Science (31)', and 'Data Science (30)'. Below these are filters for 'Language' (English, French, Spanish, Indonesian) and 'Learning Product' (Guided Projects, Courses, Professional Certificates, Specializations, Projects, Degrees). At the bottom left, there is a 'Level' filter for 'Beginner (260)'. The main content area displays three course cards:

- Use SurveyMonkey to Create a Survey and Analyze Results** by Coursera Project Network. Skills you'll gain: Data Analysis, Market Research, Survey Creation. Rating: 4.5 (394 reviews). Beginner · Guided Project · Less Than 2 Hours.
- Survey Data Collection and Analytics** by University of Michigan. Skills you'll gain: General Statistics, Probability & Statistics, Survey Creation, Research and Design, Data Analysis, Big Data, People Analysis, ... Rating: 4.4 (1.4K reviews). Beginner · Specialization · 3 - 6 Months.
- Questionnaire Design for Social Surveys** by University of Michigan. Skills you'll gain: Survey Creation, Data Analysis, People Analysis, Critical Thinking, Communication, Decision Making, Human... Rating: 4.5 (445 reviews). Intermediate · Course · 1 - 3 Months.

Below these are two more course cards:

- UX Research at Scale: Surveys, Analytics, Online Testing** by University of Michigan. Skills you'll gain: Research and Design, Survey.
- Survey analysis to Gain Marketing Insights** by Emory University. Skills you'll gain: Statistical Analysis, Marketing.

At the bottom right, there is a card for **Data Literacy** by Johns Hopkins University. Skills you'll gain: General Statistics, Data Analysis, Probability & Statistics, Statistical.

Surveys: A balance between...

Getting the information you want
vs.
Not annoying your survey-taker
to the point of quitting

This is actually very difficult when you have a lot of information that you need to gather



Methodology

- Sent out the survey in 3 rounds starting on the 16th of April 2021
- Initial round aimed for 2 hospitals per country and included 175 countries, from our database of over 18,000 hospitals around the world
- Additional rounds were to target low/middle low- income countries, as they answered less frequently
- 746 hospitals were contacted in total
- Aimed for a minimum of 4 hospitals from each of the four income levels as defined by the World Bank*



*World Bank Country and Lending Groups – World Bank Data Help Desk. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

2.1. What cleaning products and supplies are available for SURFACES?

	Higher income	Lower income
Detergent	70%	86%
Bleach/ chlorine-based disinfectant	74%	93%
Product that combines both a detergent and a disinfectant	74%	57%
Quaternary ammonium disinfectant	61%	29%
Wipes/ cloths for cleaning by hand	78%	64%
Mop and bucket systems	87%	79%
Bucketless mopping systems	17%	29%
Sponges	39%	29%
Larger mechanical cleaning machines for cleaning floors/ large surface	61%	7%
UV disinfection machines	48%	0%
Gaseous hydrogen peroxide disinfection machines	30%	0%
None of the above	0%	0%
Other products/ tools/ machines	13%	7%

Participating Countries in the HEH Pilot Survey:

51 facilities from 35 countries

- **37%** (13/35) high-income economies
- **26%** (9/35) upper-middle income economies
- **14%** (5/35) lower-middle income economies
- **23%** (8/35) low-income economies




The HEH Pilot Survey:

- Online survey
- Was sent to a sample of hospitals from a database of healthcare facilities that had participated with WHO in IPC activities


American Journal of Infection Control 000 (2022) 1–9

Contents lists available at [ScienceDirect](#)

 **ELSEVIER**

American Journal of Infection Control

journal homepage: www.ajicjournal.org



Major Article

Results of an international pilot survey on health care environmental hygiene at the facility level

Alexandra Peters MA ^{a,b}, Marie N. Schmid BS ^b, Marlieke E.A. de Kraker PhD ^a, Pierre Parneix MD ^c,
Didier Pittet MD, MS, CBE ^{a,*}

^a Infection Control Programme and WHO Collaborating Center on Patient Safety, University of Geneva Hospitals and Faculty of Medicine, Geneva, Switzerland
^b University of Geneva, Geneva, Switzerland
^c Nouvelle Aquitaine Health Care-Associated Infection Control Centre, Bordeaux University Hospital, Bordeaux, France

Challenges!

16 Croatian hospitals answered the survey although it was only sent to two, so we picked the largest and smallest hospitals from the group for the higher vs lower income calculations

Timing- Covid

Previously had developed a «Trip report» to do on-site assessments

Had to turn everything into an online survey

How to present the data?:

- Overall data was presented for ALL hospitals
- For graphs stratified by income levels, a maximum of 2 hospitals of any country was included
- What was so challenging?



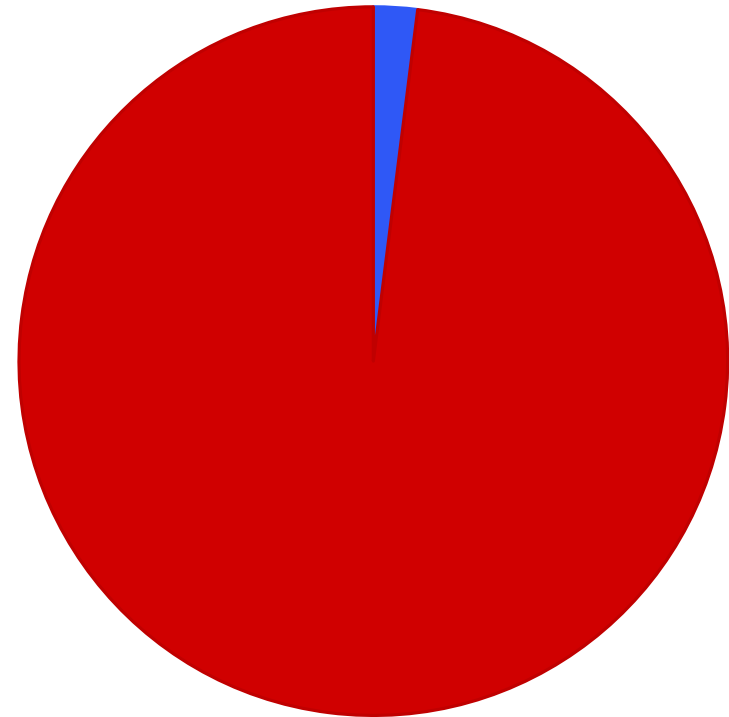
Health care facility responses concerning **staffing and training** in environmental hygiene; total responses to questionnaire and subgroup analysis by income level; N= 51; pilot survey*

HEH element or practice	Total % (responses)	Estimate (95% CI)	Higher income % (responses)	Estimate (95% CI)	Lower income % (responses)	Estimate (95% CI)
Staffing						
<i>Employment of EVS staff</i>						
In-house	83.67% (41/49)	73.33-94.02	69.57% (16/23)	50.76-88.37	100% (13/13)	100.00-100.00
Outsourced	16.32% (8/49)	5.98-26.67	30.43% (7/23)	11.63-49.24	0.00% (0/13)	0.00-24.71
<i>Availability of certifications</i>						
Regional or National	14.58% (7/48)	4.60-24.57	9.09% (2/22)	1.12-29.16	7.14% (1/14)	0.18-33.87
Institutional	10.41% (5/48)	1.78-19.06	9.09% (2/22)	1.12-29.16	14.29% (2/14)	1.78-42.81
None	75.00% (36/48)	62.75-87.25	81.82% (18/22)	65.7-97.93	78.57% (11/14)	57.08-100.00
Training						
<i>Type of training</i>						
On the job training	86.00% (43/50)	78.58-96.93	86.96% (20/23)	73.19-100	85.71% (12/14)	67.39-100.00
Manuals	52.00% (26/50)	38.15-65.85	56.52% (13/23)	36.26-76.78	35.71% (5/14)	10.62-60.81
Classroom	50.00% (25/50)	36.14-63.86	56.52% (13/23)	36.26-76.78	35.71% (5/14)	10.62-60.81
E-learning	18.00% (9/50)	7.35-28.65	26.09% (6/23)	8.14-44.03	7.14% (1/14)	0.18-33.87
Unknown	6.00% (3/50)	1.26-16.55	8.70% (2/23)	1.07-28.04	7.14% (1/14)	0.18-33.87
Other (no training given)	4.00% (2/50)	0.49-13.71	4.35% (1/23)	0.11-21.95	7.14% (1/14)	0.18-33.87
<i>Formal training requirement</i>						
Comprehensive training	22.00% (11/50)	10.52-33.48	30.43% (7/23)	11.63-49.24	7.14% (1/14)	0.18-33.87
Some training	50.00% (25/50)	36.14-63.86	47.83% (11/23)	27.41-68.24	57.14% (8/14)	31.22-83.06
No training	28.00% (14/50)	15.56-40.44	21.74% (5/23)	4.883-38.6	35.71% (5/14)	10.62-60.81
<i>Additional training</i>						
Once per year or more	46.00% (23/50)	32.19-59.81	56.52% (13/23)	36.26-76.78	14.29% (2/14)	1.78-42.81
Less than once per year	20.00% (10/50)	8.91-31.09	8.70% (2/23)	1.07-28.04	35.71% (5/14)	10.62-60.81
Only for specific contexts or environments	24.00% (12/50)	12.16-35.84	21.74% (5/23)	4.883-38.6	35.71% (5/14)	10.62-60.81
None	10.00% (5/50)	1.69-18.31	13.04% (3/23)	2.78-33.59	14.29% (2/14)	1.78-42.81

* Binary question!

Pilot Survey Results: HEH s a GLOBAL Problem

- HEH programs were insufficient across all resource levels
- 98% (50/51) of HCFs were majorly lacking in at least one of the five major components of HEH



Only cooperation and transparency can solve this challenge!

Key Results of the Pilot Survey

- Mops and buckets for cleaning floors were still used in most HCFs; only 4% (2/50) reported exclusively using bucket-less mopping systems
- 12% (6/50) of HCFs did not separate normal waste from medical / hazardous waste
- 22% (11/50) of HCFs reported having an open dump site nearby
- Only 30% (7/23) of HCFs in higher-income countries and 7% (1/14) in lower-income countries indicated that EVS staff received comprehensive formal training



Key Results of the Pilot Survey (Cont.)

- 49% (23/47) of HCFs had EVS managers on-site less than once per week or not at all
- 18% (9/49) did not use any workplace reminders, including the minimum required safety posters or instructions
- Concerning communication on the work floor, 16% (8/50) of respondents reported that EVS staff and nursing staff did not speak the same language
- Upward communication with direct superiors was possible in only 25% (12/48) of HCFs



Development of the HEHSAF Part 2: Developing the Tool

- Used data from pilot survey to assess the need as well as identify issues
- Conducted semi-structured interviews to improve the tool
- Reworked the tool to its present state with the input of over 100 people
- Put online on REDCap platform
- Validated survey in an additional international group of hospitals
- Translated into 9 languages (validation in additional languages is ongoing)



The HEHSAF

- A secure online tool for healthcare facilities (HCFs) to analyze and assess their healthcare environmental hygiene (HEH) programs
- Can be used as a benchmark for improvement over time
- The first time a global snapshot for HEH is being attempted



Designed to Support Facility Improvement (not to meet a pre-defined level)



World Health
Organization

Patient Safety

A World Alliance for Safer Health Care

SAVE LIVES

Clean Your Hands

Hand Hygiene Self-Assessment Framework 2010

Introduction and user instructions

Total Score (range)	Hand Hygiene Level
0 - 125	Inadequate
126 - 250	Basic
251 - 375	Intermediate (or Consolidation)
376 - 500	Advanced (or Embedding)



Healthcare
Environmental Hygiene
Self-Assessment
Framework
(HEHSAF)

Number	Question	Answer	Score	Max points	Total points per section
1.	GENERAL INFORMATION				0
1.1	Name of the country you are working in	Free text			
1.2	Your name and surname	Free text			
1.3	Your email address	Free text			
	Name of healthcare facility and location	Free text			
1.5	Please enter the geographic location of your institution from this site (click on the search box and enter your healthcare facility in the search bar; copy and paste the three words given in the free text box) : https://what3words.com/	Free text			
1.6	What kind of healthcare facility is your institution?	Primary care center Secondary care center Tertiary care center Long-term care facility Other (please specify)			

Finding a Platform

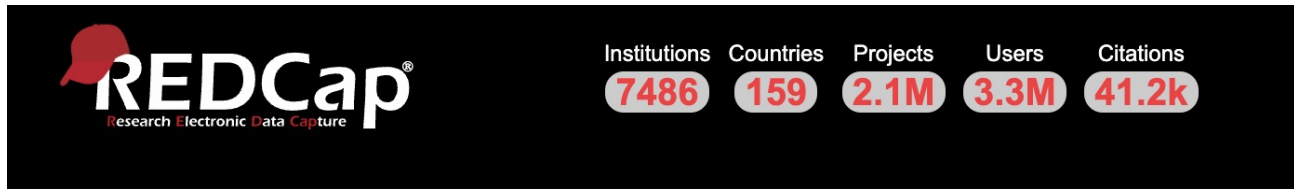


Microsoft Forms



Finding a Platform: What We Needed

1. Secure platform (sensitive information)
2. Can ask different formats of questions (MC, additive, yes/no, etc.)
3. Advanced capabilities for data analysis
4. Multi-language platforms



The Survey platform is hosted by the University of Geneva Hospitals

Figuring Out the Scoring

Number	Question	Answer	Score	Max points	Total points per section
2.	SYSTEM CHANGE: Institutional capacity and practices				/39
2.1	Does your facility have an IPC department?	Yes	4	/4	
		No	0		
2.2	Do the IPC department and the EVS/cleaning department have regular contact? (meetings/emails, phone calls, etc.)	Yes, daily	4	/4	
		Yes, once per week or more	3		
		Yes, once per month or more	2		
		Yes, but infrequently	1		
		No	0		
		There is no IPC department		D/N	
2.3	Calculation of EVS employment density- if you have precise numbers for question 1.8 and 1.15, please divide the number of PATIENT BEDS by the # EVS staff in PATIENT AREAS	Free text/ automatic online calculation			
2.4	Do you follow international and/or national guidelines for healthcare environmental hygiene?	Yes	4	/4	
		No	0		
		Don't know		D/N	

Challenge: How Many Points for Each Question

- Elements to consider:
 - Some sections have more questions than others
 - Some issues more critical
- Tried weighing questions (x2), but didn't work as well, as more important subjects tended to have more questions associated with them
- Decided to score in a similar way with less than 15% weighting (some questions are worth 8 points, some 7, this was decided on in a working group)

Changing the scoring again

Hand Hygiene Self-Assessment Framework 2010

Interpretation: A Four Step Process

1.
Add up your points.

Score	
Component	Subtotal
1. System Change	
2. Education and Training	
3. Evaluation and Feedback	
4. Reminders in the Workplace	
5. Institutional Safety Climate	
Total	

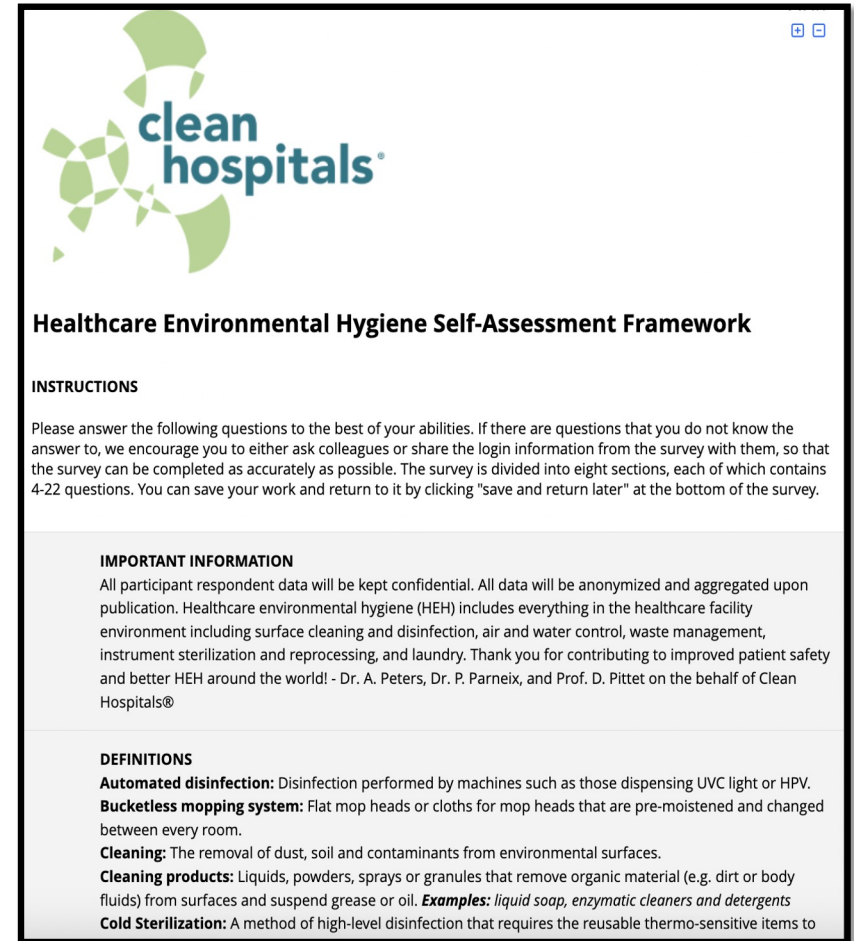
2.
Determine the assigned 'Hand Hygiene Level' for your facility.

Total Score (range)	Hand Hygiene Level
0 - 125	Inadequate
126 - 250	Basic
251 - 375	Intermediate (or Consolidation)
376 - 500	Advanced (or Embedding)

HEHSAF: Tool Overview

- 8 sections with 96 questions total
 - GENERAL INFORMATION
 - SYSTEM CHANGE: Institutional capacity and practices
 - SYSTEM CHANGE: Surfaces
 - SYSTEM CHANGE: Specific Environments
 - TRAINING & EDUCATION OF EVS STAFF
 - MONITORING AND FEEDBACK OF EVS STAFF
 - REMINDERS IN THE WORKPLACE
 - INSTITUTIONAL SAFETY CLIMATE

Languages: Amharic, Chinese, Croatian, Dutch, English, French, Malay, Portuguese, Romanian, Spanish, and Turkish



The screenshot shows the introduction page of the HEHSAF survey. It features the 'clean hospitals' logo at the top left. The title is 'Healthcare Environmental Hygiene Self-Assessment Framework'. Below the title, there is an 'INSTRUCTIONS' section with a paragraph of text. This is followed by an 'IMPORTANT INFORMATION' section with a paragraph of text. Finally, there is a 'DEFINITIONS' section with three bullet points defining 'Automated disinfection', 'Bucketless mopping system', 'Cleaning', and 'Cold Sterilization'.

Healthcare Environmental Hygiene Self-Assessment Framework

INSTRUCTIONS

Please answer the following questions to the best of your abilities. If there are questions that you do not know the answer to, we encourage you to either ask colleagues or share the login information from the survey with them, so that the survey can be completed as accurately as possible. The survey is divided into eight sections, each of which contains 4-22 questions. You can save your work and return to it by clicking "save and return later" at the bottom of the survey.

IMPORTANT INFORMATION

All participant respondent data will be kept confidential. All data will be anonymized and aggregated upon publication. Healthcare environmental hygiene (HEH) includes everything in the healthcare facility environment including surface cleaning and disinfection, air and water control, waste management, instrument sterilization and reprocessing, and laundry. Thank you for contributing to improved patient safety and better HEH around the world! - Dr. A. Peters, Dr. P. Parneix, and Prof. D. Pittet on the behalf of Clean Hospitals®

DEFINITIONS

- Automated disinfection:** Disinfection performed by machines such as those dispensing UVC light or HPV.
- Bucketless mopping system:** Flat mop heads or cloths for mop heads that are pre-moistened and changed between every room.
- Cleaning:** The removal of dust, soil and contaminants from environmental surfaces.
- Cleaning products:** Liquids, powders, sprays or granules that remove organic material (e.g. dirt or body fluids) from surfaces and suspend grease or oil. **Examples:** liquid soap, enzymatic cleaners and detergents
- Cold Sterilization:** A method of high-level disinfection that requires the reusable thermo-sensitive items to

HEHSAF: Validation

- The tool was validated in English in 9 partner hospitals in 9 countries
- Used semi-structured interviews to assess usefulness of tool, ease of use, time needed, functionality of the online platform, and comprehension
- The ten additional languages have been translated and peer-reviewed and are in the process of validation (Attention has been given for languages that are spoken differently in different regions around the world)

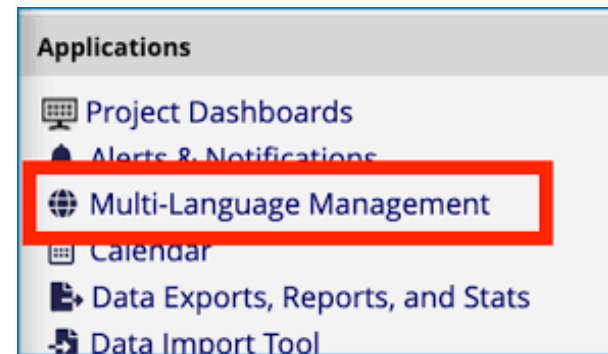


Translation Process

- Need at least 3 IPC experts to work on or assess each translation
- Each expert gets sent an excel with instruction text, HEHSAF survey, and scoring rubric
- Have to identify experts for translations, communicate with them, answer any questions, etc.
- Often terminology in the same language can be different in different parts of the world (ex. Spain vs. Latin America)
- Have to then check that everything is filled out correctly and then upload all elements into REDCap multilanguage model

REDCap Multilanguage Learning Curves

- Learning how to use the survey platform and understanding its helpful features.
- Timely activity of adding translations for each question-and-answer choice, (depending on the language it took a few hours)
- Survey formatting issues, sometimes using HTML to properly format the survey
- It's a detailed oriented process, as one mistake can affect the outcome of the survey



Importance of Acknowledging Our Contributors

- Each language translator is officially recognized and thanked for all their time and work contributed to translating the HEHSAF.



HEHSAF Validation - Interview Questions

How easy was the HEHSAF to complete?

How long did it take you to complete?

Were you able to find out the information you needed to fill out the tool?

Is the organization of the HEHSAF logical?

Are the questions appropriate?

Do you find the scoring system appropriate?

Did completing the HEHSAF make you more aware of your HEH program?

Did completing the HEHSAF reinforce what you already knew about your HEH program?

Did completing the HEHSAF help you identify areas for improvement?

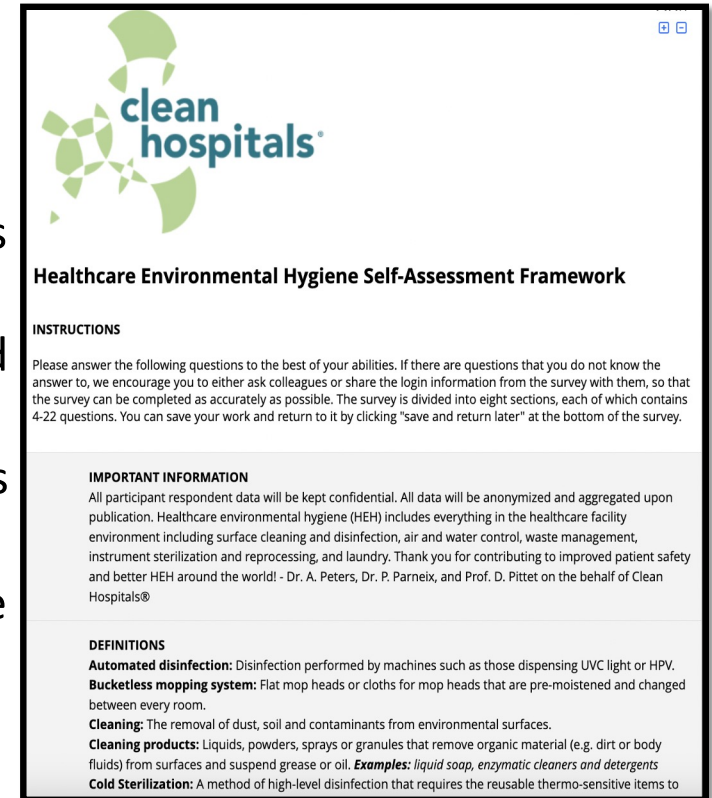
What are your suggestions for improving the tool?

When you filled it out did you get an email with a pdf?

Other comments?

Results of HEHSAF Validation

- 7/9 participants participated in the phone interviews
- Survey completion took 63 minutes on average (range: 30-120)
- 5/7 participants were more aware of their HEH programs
- 6/7 identified areas for improvement
- All participants were able to find the information needed to fill out the tool, but
- 3/7 participants needed additional input from colleagues
- Minor comments resulted in the addition of a question, helped clarify wording and optimized functionality of the online tool
- All respondents agreed that the HEHSAF was logical and contained appropriate questions



The screenshot shows the 'clean hospitals' logo at the top left. Below it is the title 'Healthcare Environmental Hygiene Self-Assessment Framework'. Underneath is the 'INSTRUCTIONS' section, followed by 'IMPORTANT INFORMATION' and 'DEFINITIONS'. The 'DEFINITIONS' section includes terms like 'Automated disinfection', 'Bucketless mopping system', 'Cleaning', 'Cleaning products', and 'Cold Sterilization'.

clean hospitals

Healthcare Environmental Hygiene Self-Assessment Framework

INSTRUCTIONS

Please answer the following questions to the best of your abilities. If there are questions that you do not know the answer to, we encourage you to either ask colleagues or share the login information from the survey with them, so that the survey can be completed as accurately as possible. The survey is divided into eight sections, each of which contains 4-22 questions. You can save your work and return to it by clicking "save and return later" at the bottom of the survey.

IMPORTANT INFORMATION

All participant respondent data will be kept confidential. All data will be anonymized and aggregated upon publication. Healthcare environmental hygiene (HEH) includes everything in the healthcare facility environment including surface cleaning and disinfection, air and water control, waste management, instrument sterilization and reprocessing, and laundry. Thank you for contributing to improved patient safety and better HEH around the world! - Dr. A. Peters, Dr. P. Parneix, and Prof. D. Pittet on the behalf of Clean Hospitals®

DEFINITIONS

Automated disinfection: Disinfection performed by machines such as those dispensing UVC light or HPV.

Bucketless mopping system: Flat mop heads or cloths for mop heads that are pre-moistened and changed between every room.

Cleaning: The removal of dust, soil and contaminants from environmental surfaces.

Cleaning products: Liquids, powders, sprays or granules that remove organic material (e.g. dirt or body fluids) from surfaces and suspend grease or oil. **Examples:** liquid soap, enzymatic cleaners and detergents

Cold Sterilization: A method of high-level disinfection that requires the reusable thermo-sensitive items to

What Are We Really Assessing?

1. System change
2. Training & Education
3. Monitoring & Feedback
4. Workplace Reminders
5. Institutional Safety Climate

Human factors!!

HEH Human Components

Career development



Workflow



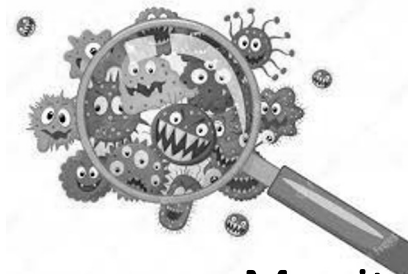
Cost and value



Training



Management



Workforce



Monitoring

All of these Elements Are...

Career development



Workflow



Cost and value



Training



Management



Workforce



UNIVERSITÉ
DE GENÈVE

Monitoring



RELATIONSHIPS

Between...

- Environmental services (EVS) staff themselves
- EVS and nursing staff
- EVS staff and EVS management
- EVS management and the hospital administration
- Hospital administration and EVS departments
- EVS and IPC departments
- Hospitals, training institutions, and regional/national governing bodies





Healthcare Environmental Hygiene Self-Assessment Framework

- Amharic
- Croatian
- Dutch
- ✓ English
- French
- Malay
- Portuguese
- Romanian
- Spanish
- Turkish
- Chinese

INSTRUCTIONS

Please answer the following questions to the best of your abilities. If there are questions that you do not know the answer to, we encourage you to either ask colleagues or share the login information from the survey with them, so that the survey can be completed as accurately as possible. The survey is divided into eight sections, each of which contains 4-22 questions. You can save your work and return to it by clicking "save and return later" at the bottom of the survey.



AAA
Chinese Change

医疗环境卫生自我评估框架

- Amharic
- Croatian
- Dutch
- English
- French
- Malay
- Portuguese
- Romanian
- Spanish
- Turkish
- ✓ Chinese

说明

请尽量回答以下问题。如果有您不知道答案的问题，我们鼓励您向同事询问或者与他们分享调查的登录信息，以便尽可能准确地完成调查。调查分为八个部分，每个部分包含4-22个问题。您可以通过点击调查底部的“保存并稍后返回”来保存您的工作并随时返回。

HEHSAF Answer Key



The Organization
▼

Members & Partners
▼

Research & Projects
▼

Events
▼

Clean Hospitals Day
▼

HEHSAF
▼

News

Library



Healthcare Environmental Hygiene Self-Assessment Framework Scoring Rubric

Please download the PDF below to consult the evaluation grid for interpreting your facility's score.

HEHSAF Scoring Answer Key

Download PDF [▶](#)

HEHSAF Answer Key (2)

- Each scorable question is given points
- The answer key lets you see how many points each question is worth

Clean-Hospitals-HEHSAF-Scoring-Rubric.pdf 4 / 16 | 100%

	is adequately staffed, this number should be 1 or greater than 1.		
2.4	Do you follow international and/or national guidelines for healthcare environmental hygiene?	Yes	8
		No	0
		Don't know	0
2.5	Does your healthcare facility have different protocols for different risk zones (Example: offices vs. patient rooms vs. operating theaters)?	Healthcare environmental hygiene protocols do not vary from one zone to the next	0
		Some protocols are adapted to high-risk zones, such as operating theaters/transplant wards	4
		All healthcare environmental hygiene protocols are adapted to each risk zone	8
		Don't know	0
2.6	Are there additional protocols available for the person who cleans the patient zone?	Yes	7
		No	0
		Don't know	0
2.7	Is there a plan in place to improve HEH in your facility (either at the individual program or institutional level)?	Yes	7
		No	0
		Don't know	0
2.8	Does your facility have an antibiotic stewardship program in place?	Yes, there is a full program in place	8

HEHSAF Scoring Levels

The scores are calculated out of a maximum of 500 points

Total Score (range)	Level of Healthcare Environmental Hygiene
0-125	Inadequate
126-250	Basic
251-375	Intermediate (or Consolidation)
376-500	Advanced (or Embedding)

HEHSAF Scoring Definitions

Inadequate: environmental hygiene practices and hand hygiene promotion are deficient. Significant improvement is required

Basic: some measures are in place, but not to a satisfactory standard. Further improvement is required

Intermediate: an appropriate environmental hygiene promotion strategy is in place and environmental hygiene practices have improved. It is now crucial to develop long-term plans to ensure that improvement is sustained and progresses

Advanced: optimal environmental hygiene promotion and practices have been sustained and/or improved, helping to embed a culture of safety in the health-care setting

Potential Significance: The Role of Self-Assessment Tools In IPC

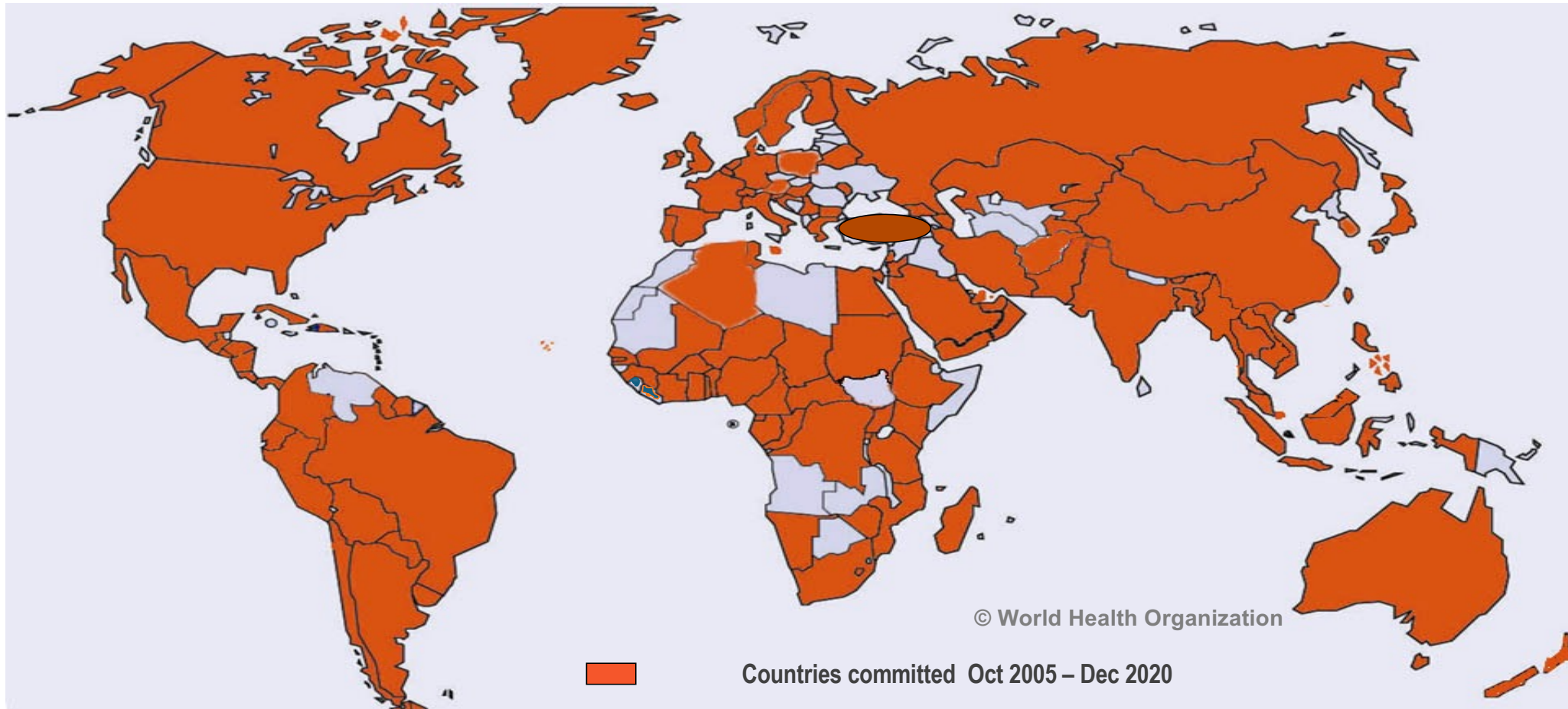
**Hand Hygiene
(HHSAF)**

**IPC Core
Components
(IPCAF)**

**Environmental
Hygiene
(HEHSAF)**

142 countries committed to address health care-associated infection

World population coverage : > 98 %



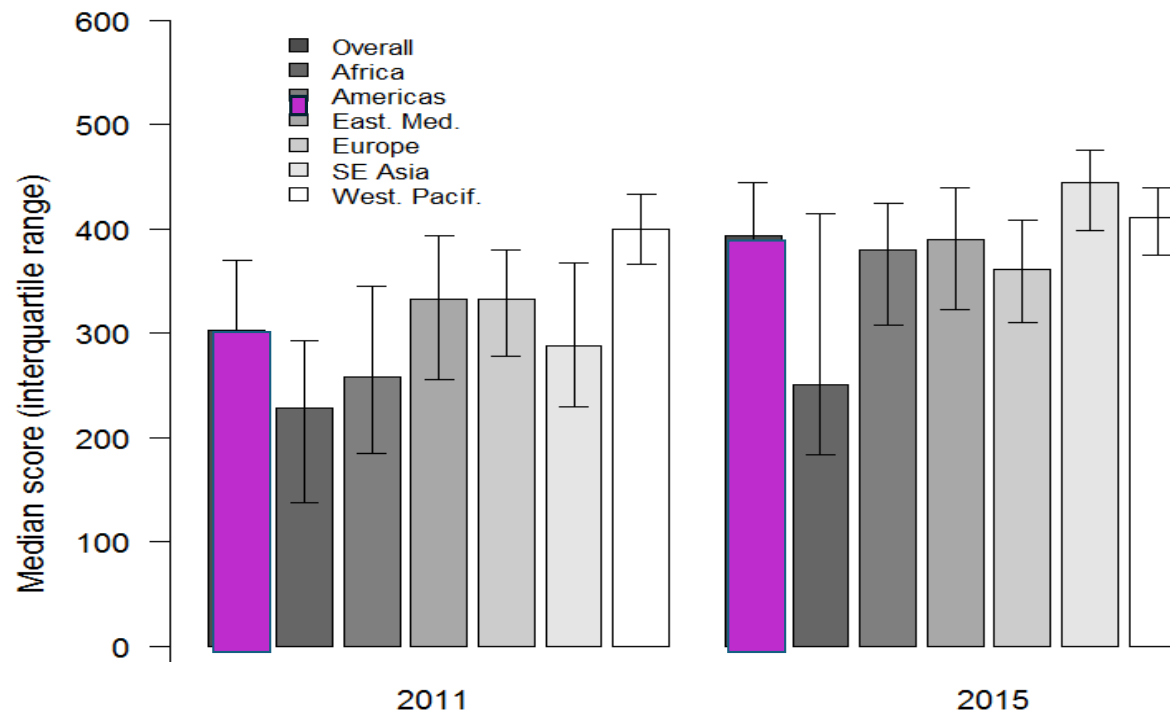
The Type of Data that can be Generated With Such Surveys

- If we can implement a global survey for HEH, what kind of data can we expect?
- The next slides are some data from hand hygiene from the HH self-assessment global surveys with WHO...



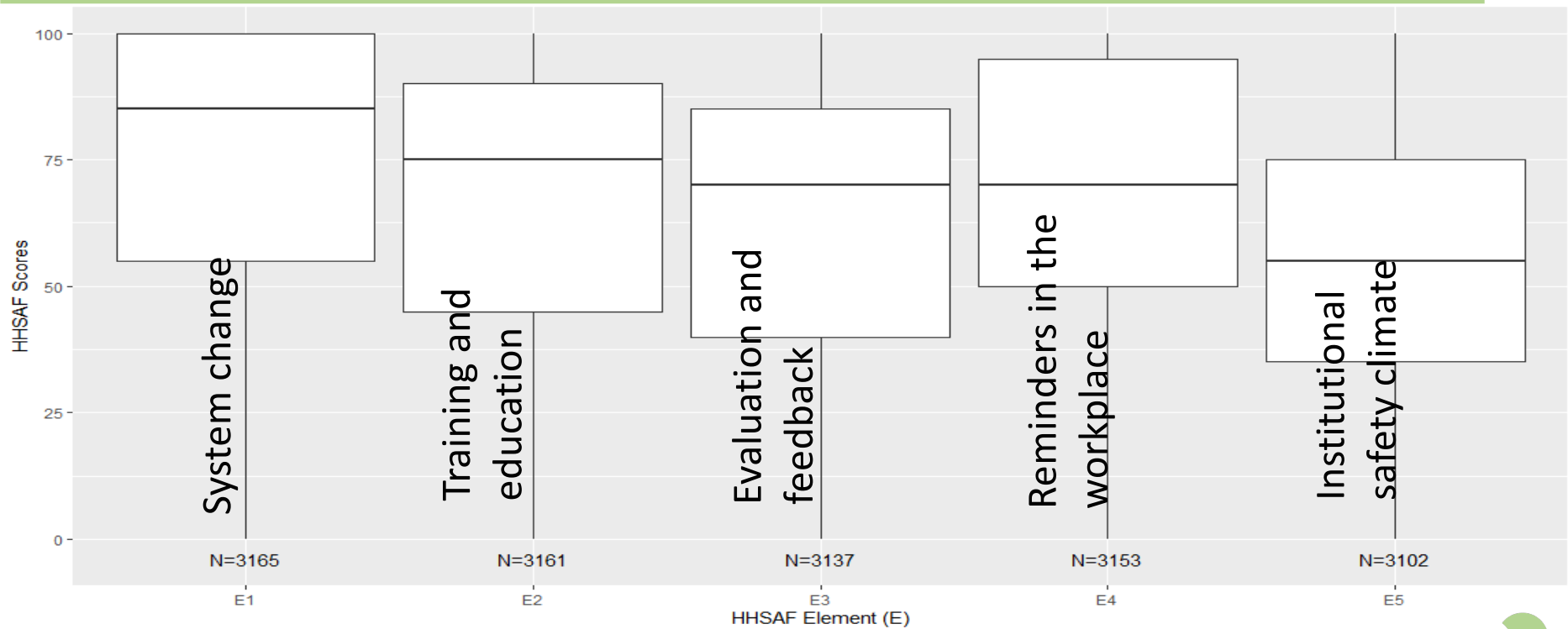
Tracking Improvement

WHO Hand Hygiene Self-Assessment; Total score in hospitals* in 2011 & 2015



Kilpatrick et al. *J Hosp Infect* 2018 *only in hospitals participating in both surveys in 2011 & 2015

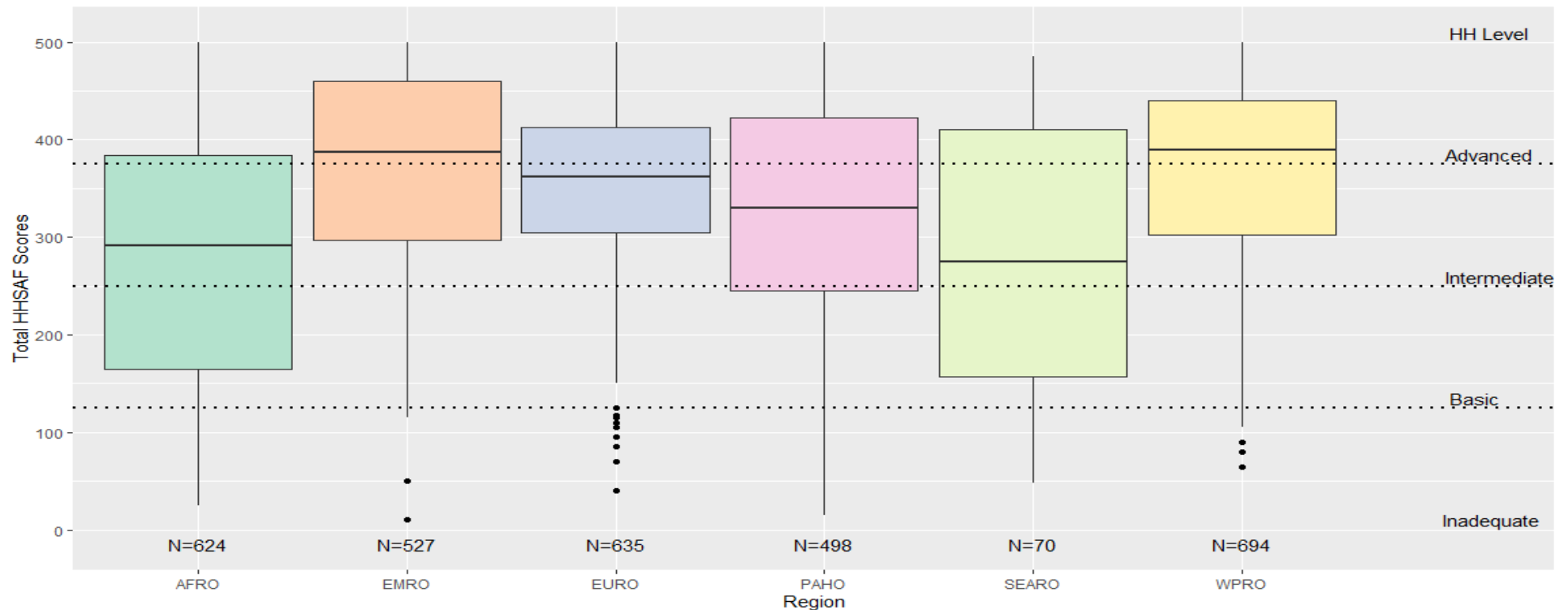
Worldwide Hand Hygiene Implementation Level



Overall median score: 365, IQR 278 – 430 – Intermediate HH level, *The Lancet Inf Dis*

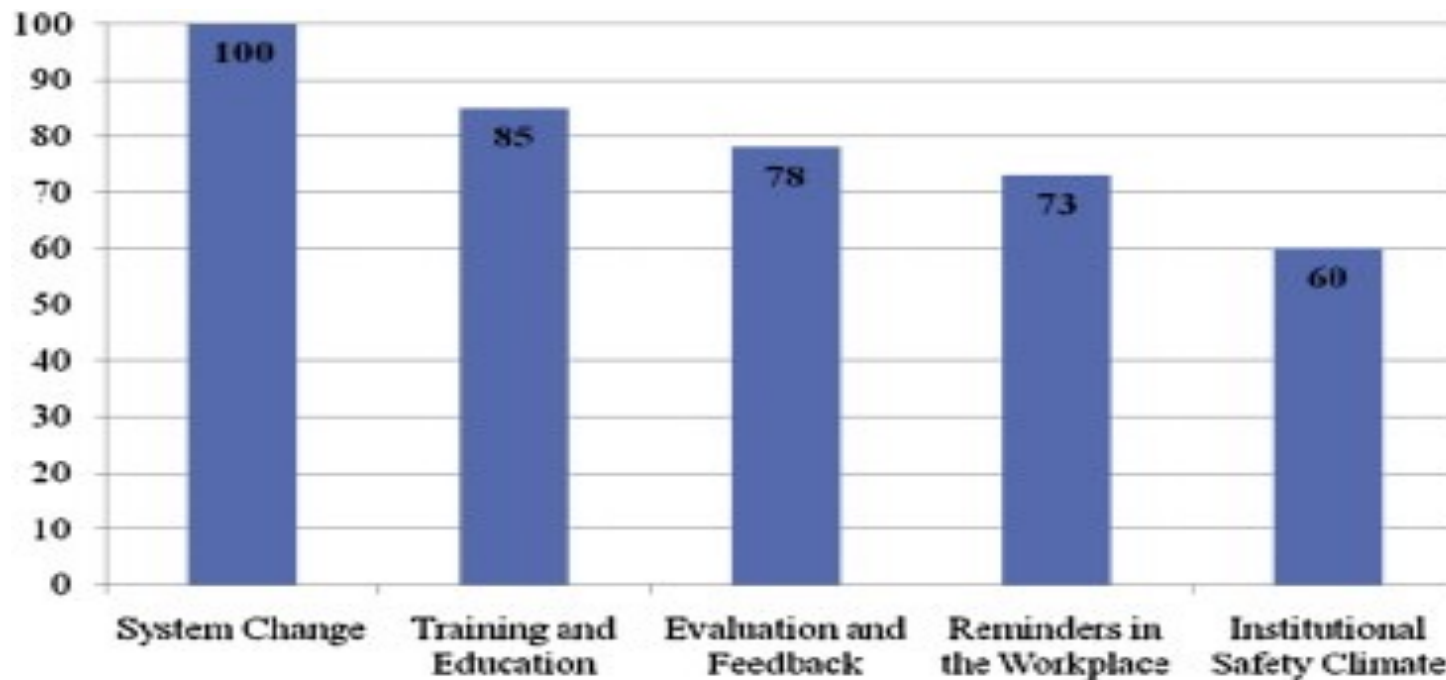
Regional Comparisons

Worldwide hand hygiene implementation level by WHO region



SEARO 276 (IQR 157-411, Intermediate) versus EMRO 388 (297-460), Advanced) *The Lancet Inf Dis*

Identification of Areas for Improvement



Median component scores for US facilities participating in the WHO HSAF survey 2011 (n = 129)
B Allegranzi, L Conway, E Larson, D Pittet *Am J Infect Control* (2014) 42:224-30

HEHSAF Status of the Data

- Translated in 11 languages
- Over 220 completed surveys
- From over 30 countries
- 57 additional incomplete surveys with useable data



How can you use the HEHSAF?

- It will help IPC and HEH managers have meaningful conversations about HEH with healthcare facility decision makers
- Help industry to accompany their clients through the process of identifying areas for improvement
- It will give you a vision of the topography of each facility's HEH program, allowing you to better position your possible solutions
- Currently over 30 participating countries

What do do after the tool is filled out?

The HEHSAF is designed to help identify and assess gaps in HEH programs

It helps IPC and HEH managers have meaningful conversations about HEH with healthcare facility decision makers

Next steps are for institutions to decide:

1. WHICH gaps to address first
2. HOW to address them

Of course it is important to adapt to adopt, and choose solutions that make sense for YOUR institution and cultural and resource contexts!

How can changes be implemented?

1. Self-assessment of needs
2. Hierarchy of institutional priorities
3. Feasibility/resource assessment
4. Implementation
5. Monitoring and assessment of implementation
6. Add improvements where needed
7. Monitor again
8. Allocate continued support to initiative when and where it's needed



How can changes be implemented (cont.)?

1. Self-assessment of needs
2. Hierarchy of institutional priorities
3. Feasibility/resource assessment
4. Implementation
5. Monitoring and assessment of implementation
6. Add improvements where needed
7. Monitor again
8. Allocate continued support to initiative when and where it's needed

The HEHSAF



To keep in mind: Self-assessment is only the first step to improvement; there is a lot of work to do after

Return on Investment

- For Hand Hygiene ROI is up to 23x
- How much for healthcare environmental hygiene??
- Much more difficult to calculate and is varied...BUT we have some data on outbreak costs with pathogens associated with the environment



Global Buy-in Depends On Perceived Cost And Value



The Global Survey

How to get to the next level?

Idea is to do a global survey, but difficult to do dissemination and data protection and management

Currently looking at trying to get funding to launch a global survey, hopefully over the next 12 months

... and I'm sure there will be plenty of new challenges for that!



Thank you!

www.webbertraining.com/schedulep1.php

September 19, 2024 [THE PHYSICS OF FLYING FECES](#)
Speaker: **James Gauthier**, Webber Training

October 10, 2024 [RELATIONSHIPS AMONG PATIENT SAFETY CLIMATE, STANDARD PRECAUTION ADHERENCE, HEALTHCARE WORKER AND PATIENT OUTCOMES](#)
Speaker: **Prof. Amanda J. Hessels**, Columbia University, School of Nursing

October 17, 2024 [LONGITUDINAL GENOMIC SURVEILLANCE TO TRACK PATHWAYS LEADING TO CLOSTRIDIODES DIFFICILE COLONIZATION AND INFECTION IN AN ICU](#)
Speaker: **Prof. Evan Snitkin**, University of Michigan Medical School

October 18, 2024 [\(FREE European Teleclass\)](#)
[SPECIAL LECTURE FOR CLEAN HOSPITALS DAY](#)
Speaker: **Prof. Didier Pittet**, University of Geneva, Switzerland

October 23, 2024 [\(Australasian Teleclass\)](#)
[CLOSTRIDIUM DIFFICILE INFECTION – ONE HEALTH AND THE RISE IN COMMUNITY-ASSOCIATED INFECTION](#)
Speaker: **Prof. Tom Riley**, The University of Western Australia

Thanks to Teleclass Education
PATRON SPONSORS



diversey.com



virox.com



gamahealthcare.com