



A Multi-Modal Approach using Implementation Strategies for IPC Interventions to Promote Health Worker Safety during the COVID-19 Pandemic

1. Introduction to Implementation Science

2. Overview of Implementation (Science) Strategies used to Promote Evidence-based Practices

3. IPC Intervention Design for Health Worker Safety

4. Health Worker Surveillance Tools

Implementation science is "the scientific study of methods to promote the systematic uptake of research findings and other EBPs into routine practice, and, hence, to improve the quality and effectiveness of health services."

Implementation science bridges what we "know" and what we "do!"

KNOW

MIND THE GAP

DO

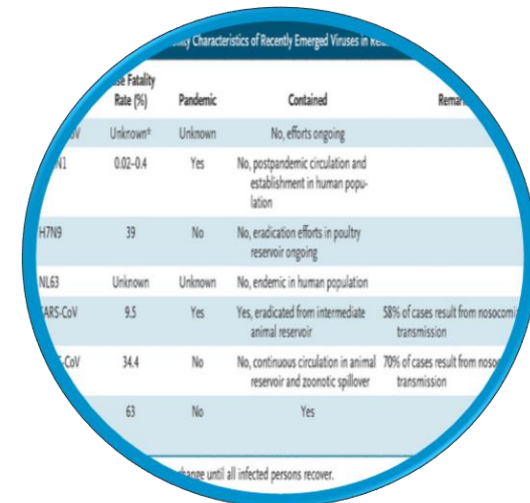
Evidence based practice (EBP) is the conscientious use of current best evidence in making decisions about patient care



Hand Hygiene



Waste
Management



Case Fatality Rate (%)	Pandemic	Contained	Remarks
Unknown?	Unknown	No, efforts ongoing	
0.02-0.4	Yes	No, postpandemic circulation and establishment in human population	
39	No	No, eradication efforts in poultry reservoir ongoing	
Unknown	Unknown	No, endemic in human population	
9.5	Yes	Yes, eradicated from intermediate animal reservoir	58% of cases result from nosocomial transmission
34.4	No	No, continuous circulation in animal reservoir and zoonotic spillover	70% of cases result from nosocomial transmission
63	No	Yes	

Screening

Education

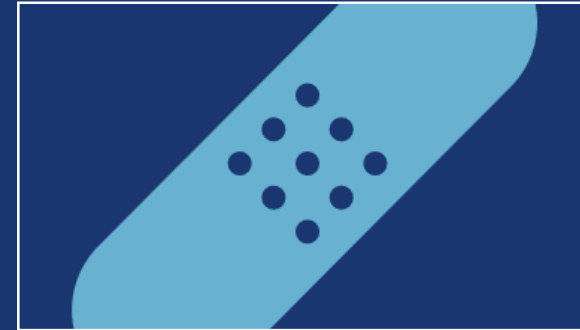
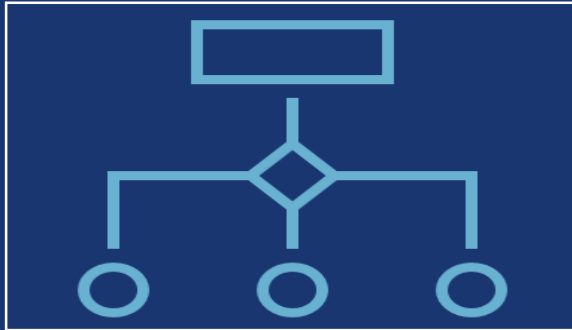
Quality
Management

Plan

Restructure

Finance

Policy



Implementation

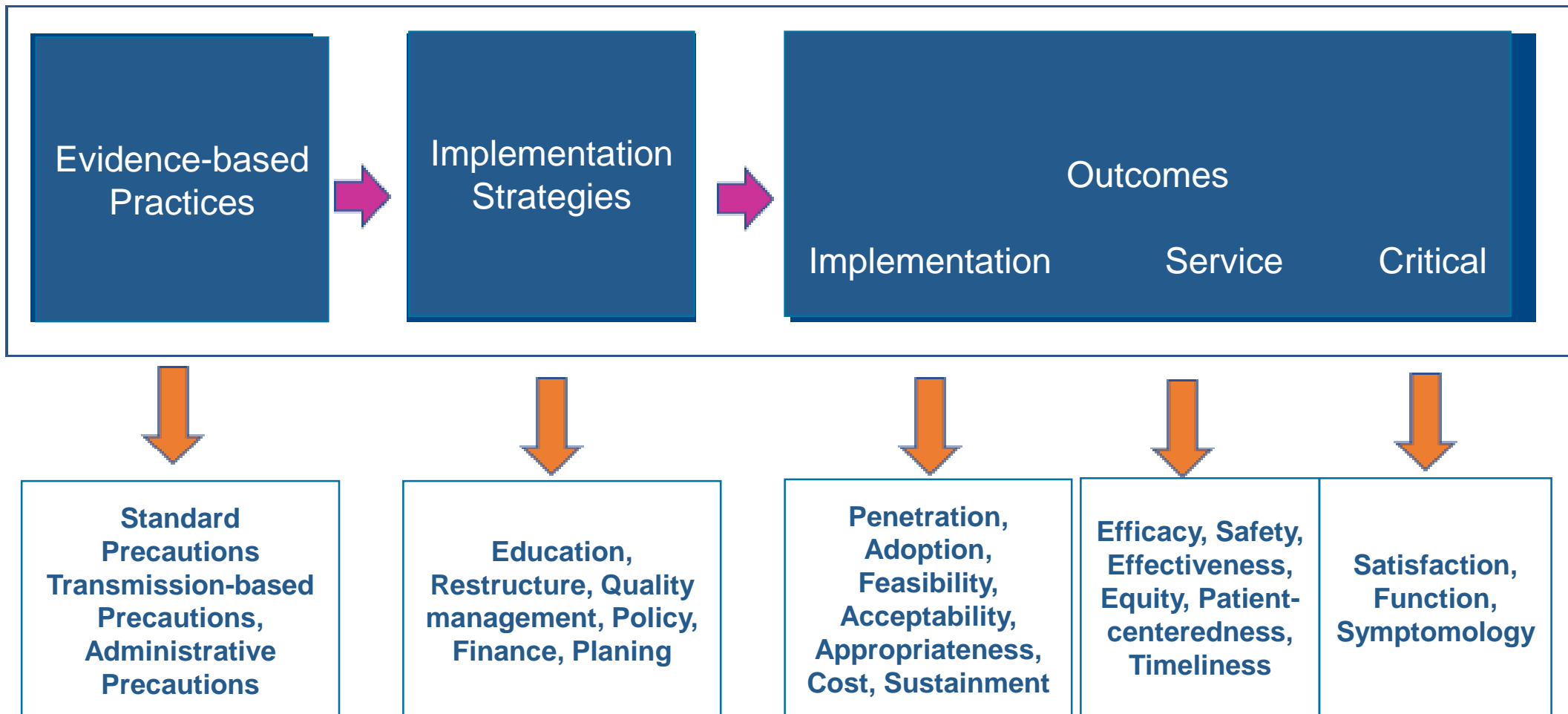
Acceptability
Feasibility
Sustainability
Penetration
Fidelity
Cost
Adoption
Appropriateness

Service

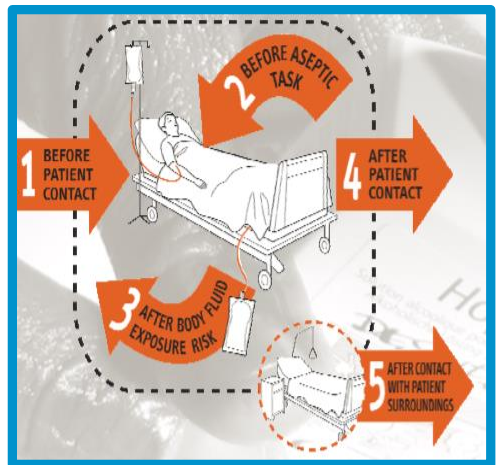
Efficacy
Safety
Effectiveness
Equity
Patient-centeredness
Timeliness

Clinical

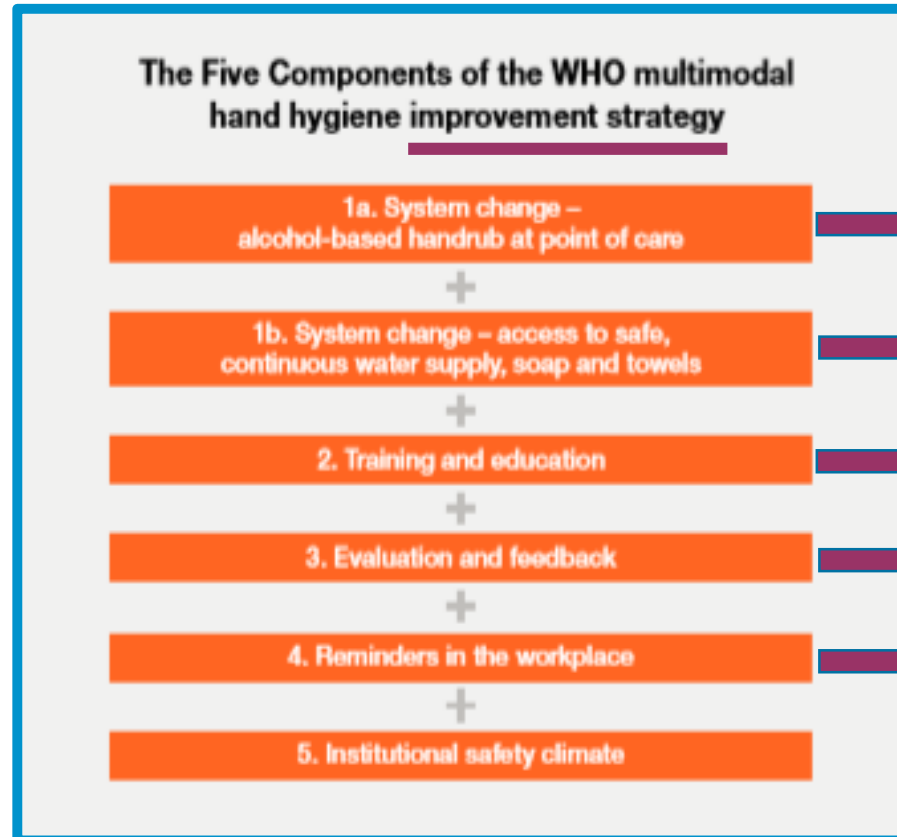
Satisfaction
Function
Symptomology



Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Adm Policy Ment Health*, 36(1), 24-34. doi:10.1007/s10488-008-0197-4



EBP: Hand Hygiene



Implementation Strategies



Restructure

Plan

Education

Quality Management

Education

Outcomes

Efficiency
Compliance
(Penetration)
Adoption

WHO. (2009). A Guide to the Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy. https://www.who.int/gpsc/5may/Guide_to_Implementation.pdf?ua=1

Education

Quality
Management

Plan

Restructure

Finance

Policy

Education

- **Develop materials** (guidebooks, guidelines, brochures, posters)
- **Educate** (trainings, educational sessions)
- **Educate through peers** (inform local opinion leaders)
- **Inform and influence stakeholders** (use mass media)

Quality Management

- **Develop and organize quality monitoring systems**
- **Audit and feedback to health workers in real-time/bedside**
- **Re-examine implementation is unsuccessful**
- **Provide clinical supervision**
- **Use data warehousing techniques**

Plan

- **Select strategies** (develop an implementation blueprint, stage strategy scale-up)
- **Build Buy-in** (conduct local consensus discussions, identify/prepare champions)
- **Initiate Leadership** (recruit, designate, train for leadership)
- **Establish Relationships** (Build academic partnerships, develop resource sharing agreements)

Restructure

- **Revise professional roles**
- **Develop clinical teams**
- **Change record/data collection and maintenance systems**
- **Alter physical structures**

Finance

- **Modify incentives** (utilize non-financial incentives)
- **Initiate Financial Support** (assess for new funding mechanisms)

Policy

- **Develop ToRs, SOPs, technical guidance documents that may not be readily accessible.**

Education

Quality
Management

Plan

Restructure

Finance

Policy

Considerations before starting developing an intervention:

1. What are some of the most important IPC challenges within your health facility? (Review any assessment tools used to assess IPC at the HF) *IPC Scorecard!
2. What have you already done to address the challenges? Why did it not work?
3. What resources (financial, non-financial, consumable, and human) do you have available at the health facility?
4. Are there any infrastructural or engineering challenges at your HF?
5. How is health worker morale?
6. Is there a strong administrative/political commitment to change
7. How have HF operations and/or service delivery changed since the first cases of SARs-CoV 2 presented to the facility?

Intervention design considerations:

1. Start with 1 or 2 critical IPC challenges at your HF
2. Identify who are the key “players” involved in making the IPC practice successful
3. Bring those “players” together for a small focus group session; get buy-in from this group regarding the different implementation strategies
4. Develop a short list of strategies that will be feasible and acceptable to implement at the HF
5. At least one of the strategies should be an education strategy
6. Identify 2-4 other strategies to be used
7. Put all of the different strategies into a group; review and see if the selected strategies make “sense” in terms of addressing the IPC challenge
8. Begin to think about how to be implement the selected strategies; communicate your implementation plan with HF administration and key players
9. Assess for improvement; make changes as needed, stop HW infections

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*None until all infected persons recover.



Education



Quality Management



Restructure

IPC challenge: Screening

Training??

Monitoring and evaluation??

Task-shifting??

Characteristics of Recently Emerged Viruses in recent years

Viruses	Case Fatality Rate (%)	Pandemic	Contained	Remarks
1918-19	Unknown*	Unknown	No, efforts ongoing	
H1N1	0.02-0.4	Yes	No, postpandemic circulation and establishment in human population	
H7N9	39	No	No, eradication efforts in poultry reservoir ongoing	
NL63	Unknown	Unknown	No, endemic in human population	
MERS-CoV	9.5	Yes	Yes, eradicated from intermediate animal reservoir	58% of cases result from nosocomial transmission
E-CoV	34.4	No	No, continuous circulation in animal reservoir and zoonotic spillover	70% of cases result from nosocomial transmission
SARS-CoV-2	63	No	Yes	

*None until all infected persons recover.

IPC challenge: Screening



Education

Quality Management

Training??

Monitoring and evaluation??



IPC Improvement!

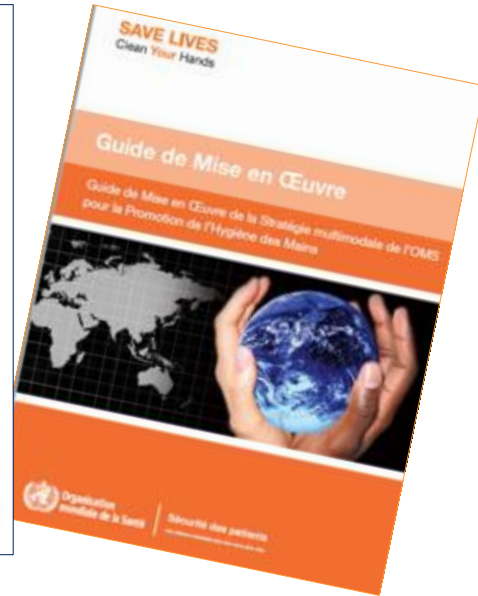
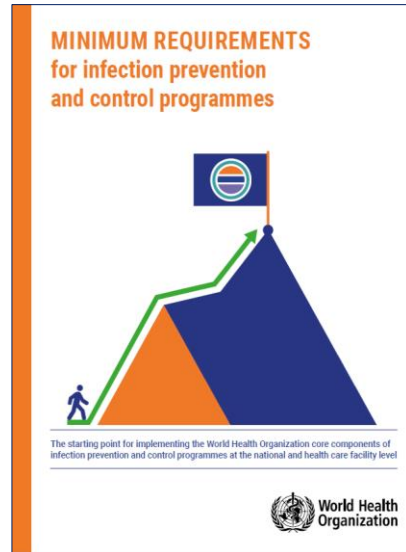
Restructure

Policy

Task-shifting??

Contracts??

COVID-19 RESPONSE



WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR AFRICA SUPPORTS THE COVID-19 RESPONSE

Technical Tools for Health Worker Safety

Tool 3 - Tool for assessing national SARS-Cov-2 protection policy for health workers

When to use it?

It is used as part of an initial situational analysis for the development of a national action plan. It will also be used as part of the monitoring and evaluation plan to measure progress over time.

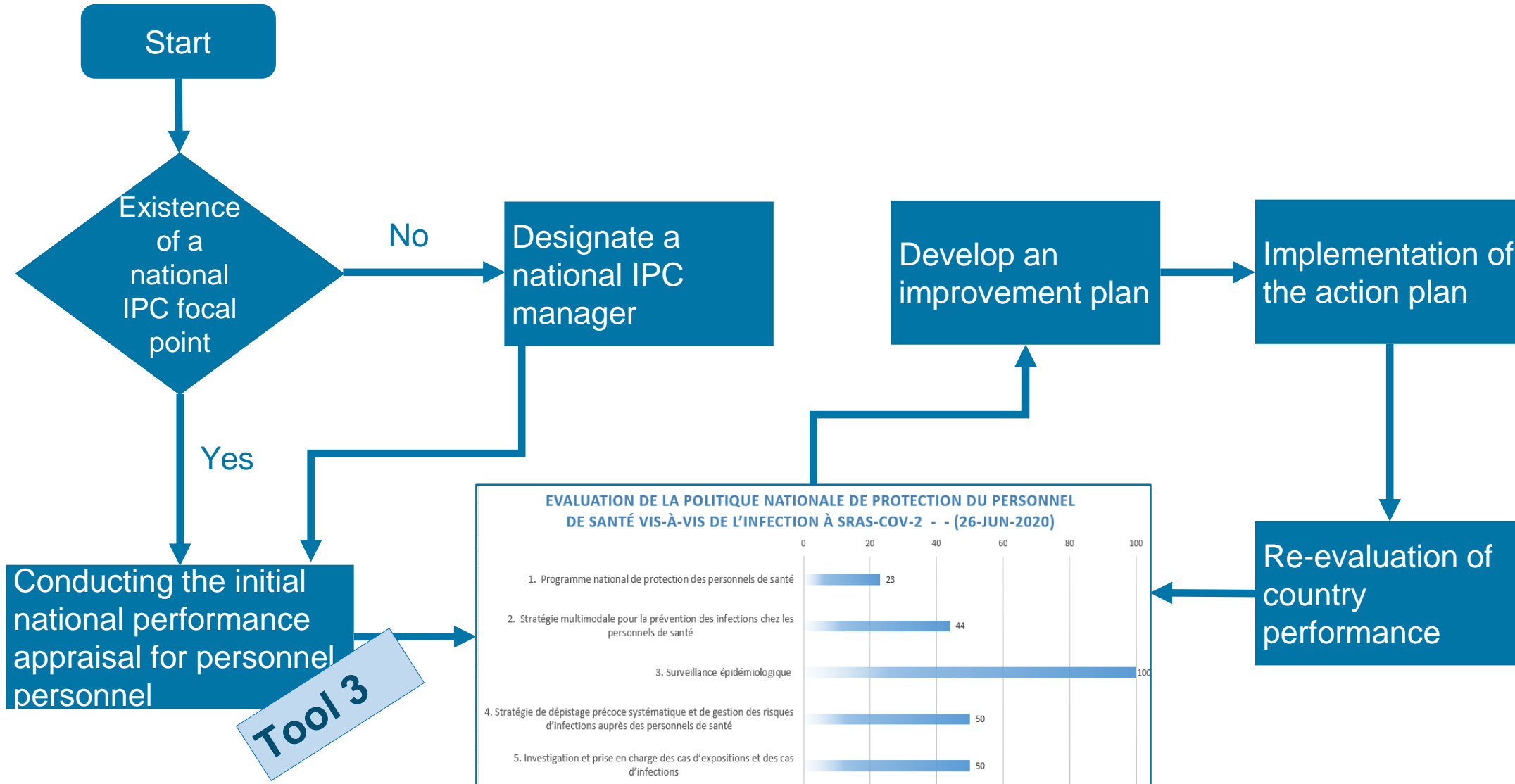
Who should use it?

National IPC Committee, in principle made up of the Ministry of Health team, representatives of all stakeholders (technical and financial partners, field actors, related programs, other sectors, etc.).

How should it be used?

Inclusive approach with the objective of achieving consensus results

Guide for Implementing a National ICP Policy for the Protection of Health Workers (Tool 3)



Tool 3

Tool 2 – Exposure Risk Assessment for Health Workers

When to use it?

Whenever there is a risk of exposure of a health care worker to SARS-CoV infection 2

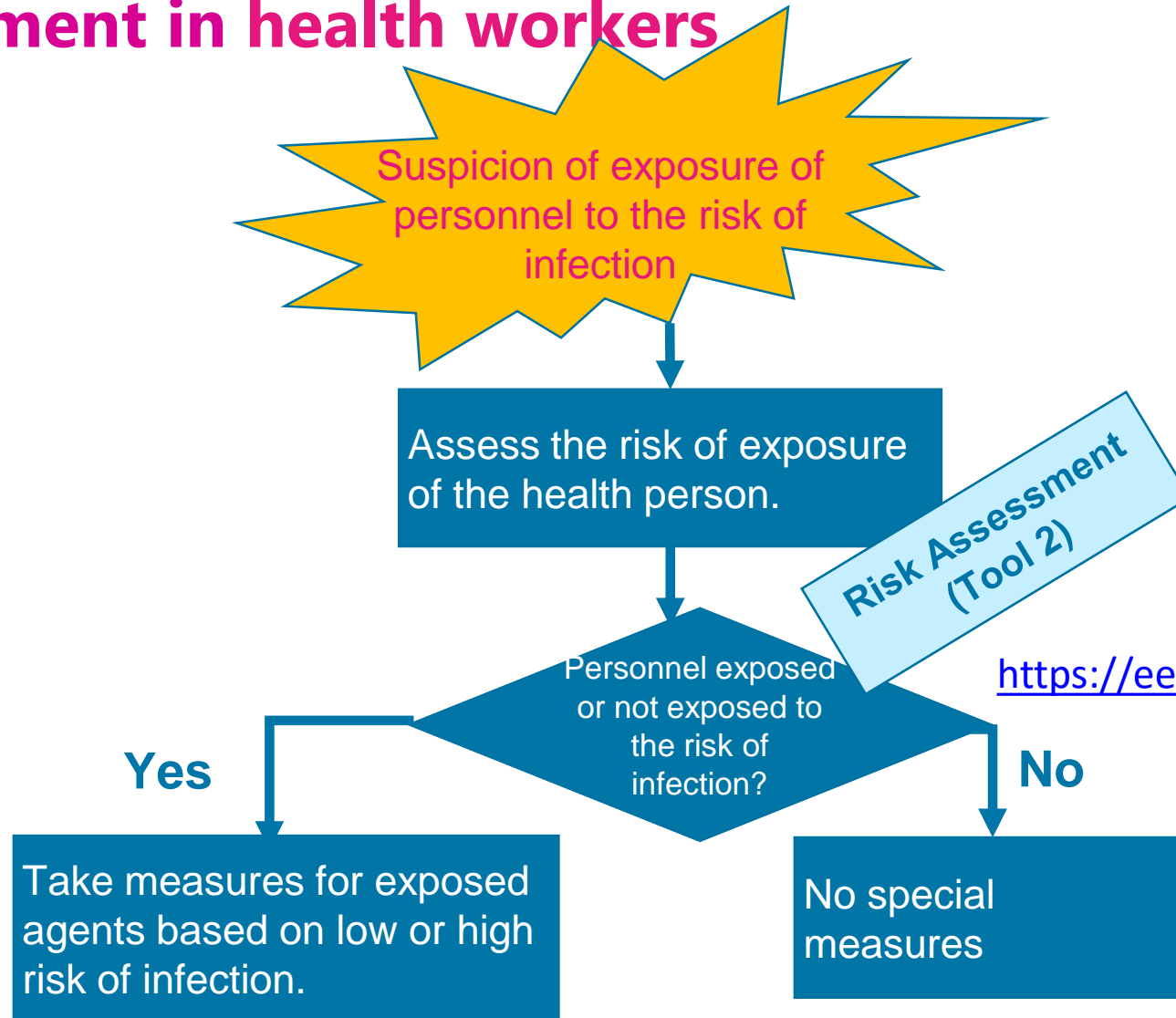
Who should use it?

Specially trained health managers, called referents in the framework of the national personnel protection program.

How should it be used?

Exhaustive expertise on a case-by-case basis by a competent and authorized referent.

Guide for the use of tools for the exposure risk assessment in health workers



<https://ee.humanitarianresponse.info/x/ivjWHkfg>

Take organizational measures for the availability of referring physicians (investigators) at the point of care.

Tool 4 – Case investigation

When to use it?

Whenever a health worker has a confirmed SARS-CoV 2 infection

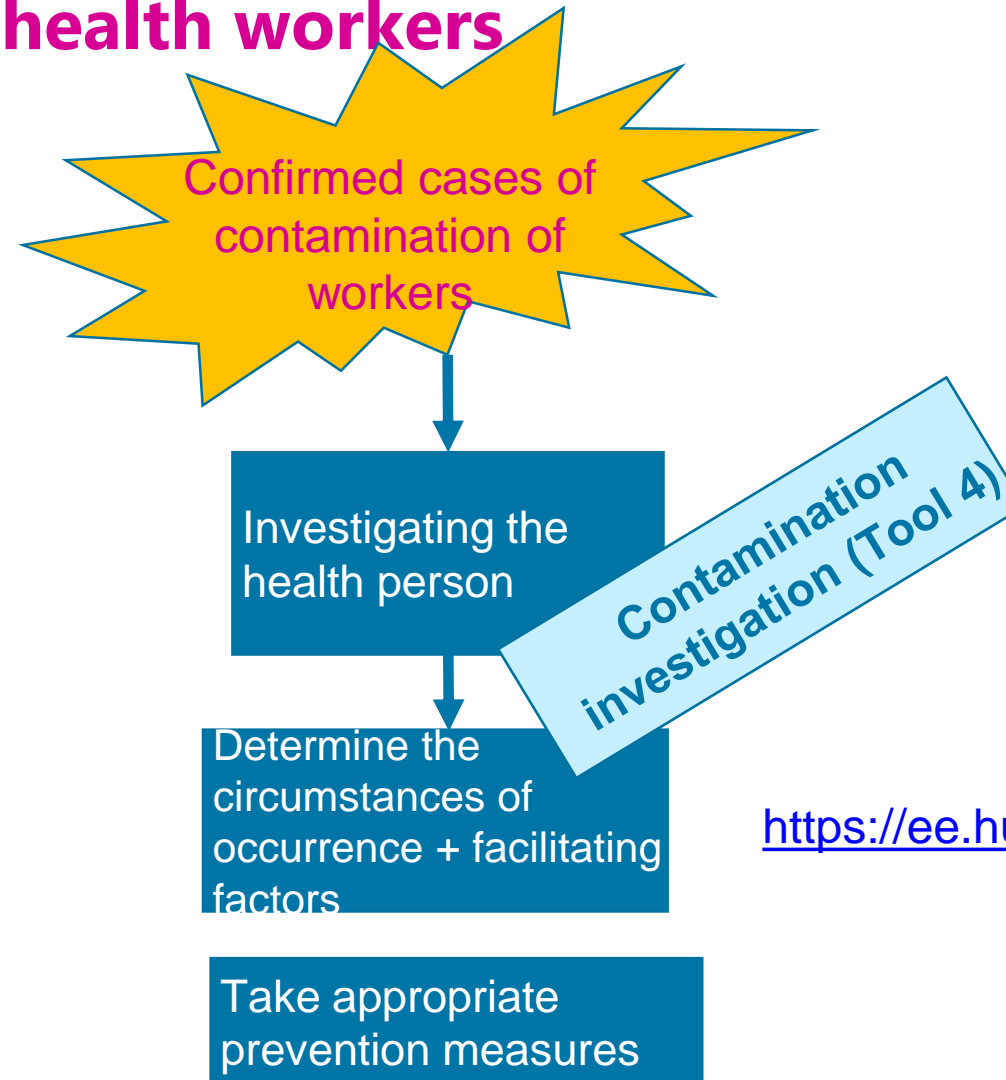
Who should use it?

Specially trained health managers, called referents in the framework of the national personnel protection program.

How should it be used?

Exhaustive expertise on a case-by-case basis by a competent and authorized referent, making full use of all epidemiological, clinical and biological data.

Guide for the use of tools for the investigation of confirmed cases in health workers



<https://ee.humanitarianresponse.info/x/d9nt4fKx>

Take organizational measures for the availability of referring physicians (investigators) at the point of care.

Some important ways to foster a culture of IPC at your healthcare facility:

1. Make sure all IPC policies are visible, available, and up-to-date
2. Engage healthcare facility leadership and managers to support IPC practices
3. Make it “second nature!” Do the same way, every time!
4. Involve colleagues—mentor each other!!
5. Always inform new employees of the IPC practices at the healthcare facility
6. Monitor and Evaluate IPC data
7. Reduce HAI infections
8. Prepare for emergencies and use these emergency to invest in IPC continuity of practice
9. Make the right behavior the easy one!

Further materials

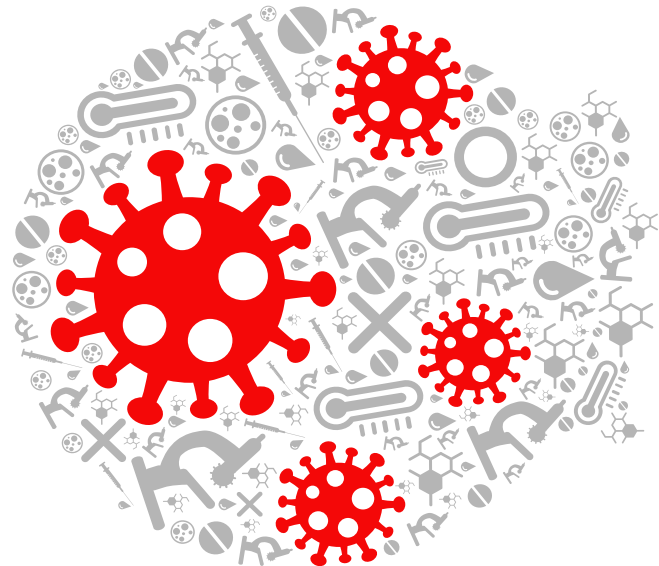
For complete list of implementation strategies, see page 147 in:

Powell BJ, McMillen JC, Proctor EK, et al. A compilation of strategies for implementing clinical innovations in health and mental health. *Med Care Res Rev.*

2012;69(2):123-157.

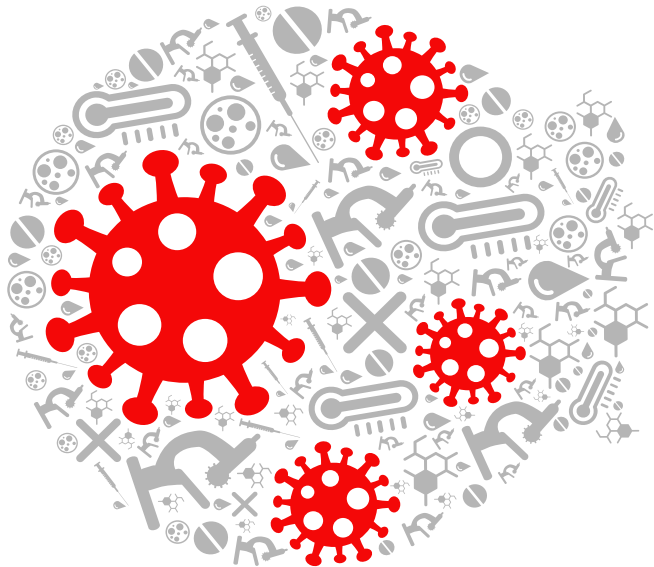
doi:10.1177/1077558711430690.

<https://pubmed.ncbi.nlm.nih.gov/22203646/>



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**COVID-19
RESPONSE**



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THANK YOU