





Ministry of Health & Family Welfare Government of India





## Rapid Risk Assessment

#### National Training of Trainers for



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#### Content

- 1. Definition and rationale for Rapid Risk Assessment (RRA)
- 2. Risk assessment methods, tools and process
- 3. Risk assessment components, risk matrix
- 4. Risk assessment outputs
- 5. Examples of risk questions for India

#### Risk = likelihood and consequences



#### Definition and rationale for RRA

What is risk assessment?

A systematic process for gathering, assessing and documenting information to assign a level of risk

Why to conduct risk assessment?

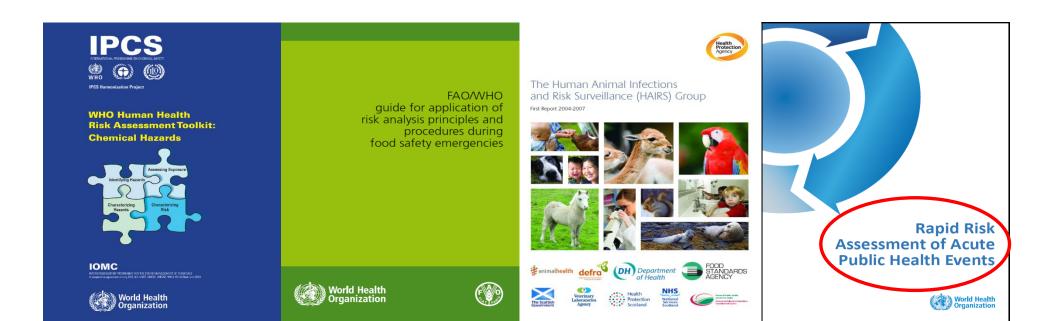
- Characterize the risk (low-moderate-high-very high)
- Support and direct decision-making
- Implement appropriate and timely control measures
- Support effective operational and risk communication
- Improve preparedness

# Risk assessment methods, tools and process

#### Methods & Tools for Rapid Risk Assessment

SMART goals: simple, measurable, achievable, relevant and time-bound

- Minimum number of methods for common understanding
- Simple but not simplistic
- Appropriate to the people undertaking the risk assessment
- Appropriate to the timeframe required for action
- Examples of methods/tools for acute public health events.



### Rapid Risk Assessment Process

- Assembling Risk Assessment team (multidisciplinary team)
- Formulating risk questions
- Undertaking Risk Assessment (components)
  - 1. Assess hazard/threat
  - 2. Assess exposure(s)
  - 3. Assess context (vulnerabilities and threatspecific factors that increase or decrease risk)
- Assigning level of risk.





### Risk assessment components, risk matrix

#### Risk assessment components

#### Hazard/threat

- Hazard can be known or unknown
- If unknown, prioritise potential hazards (biological, chemical, physical and radionuclear hazards)

Exposure

- Number of people likely to have been exposed
- Number of people exposed likely to be affected

#### Context (capacity and control)

- Factors associated with social, health status, behaviour (population density and movement)
- Factors associated with health system (Surveillance, diagnosis, treatment)
- Context (political, conflict, economical)

Documented evidence



#### **Risk Matrix**

Likelihood	Consequences					
	Minimal	Minor	Moderate	Major	Severe	
Almost certain	Common cold					
Highly likely						
Likely	COVID-19					
Unlikely	SARS					
Very unlikely						

#### Risk assessment – characterizing risk

	Risk level	Level of management to be undertaken
Green	Low	Manage through routine procedures.
Yellow	Moderate	Routine procedures may not be sufficient. Management responsibility must be specified; specific monitoring or procedures required.
Orange	High	Local capacity surpassed requiring next level of management, and perhaps government to assist. Establish command and control structure.
Red	Very high	Local capacity overwhelmed requiring highest level of management and government to assist (perhaps international). Activate Emergency Operations Centre (EOC).

### Outputs of risk assessment

#### Risk statement and limitations of RRA

#### **Risk statement**

 Make a concise statement about the level of risk and give evidencebased reasons using key information on likelihood of the event occurring and the impact the event will have

#### Limitations

- Make a brief statement about limitations of the risk assessment
- These limitations should be documented as they will also assist in decisions and follow-up actions

#### **Recommendations**

- Communicate timely and regularly
- Acknowledge uncertainty
- Understand stakeholders' perceptions
- Translate science into non-expert language

#### Limitations and level of confidence

# Incomplete information can lead to low confidence in the outcome

#### BUT

decisions for intervention still have to be made

- As data improves confidence increases
- At all stages of an event the most reliable data available should be used and key limitations should be documented
- This is a cyclical process

### Examples of risk questions for India

#### In scenario of first cases and clusters

- What is the risk of infection for Indian citizens travelling in areas with/without ongoing community transmission?
- What is the risk of introduction of COVID-19 in state X?
- What is the risk of health care associated transmission?
- What is the risk of clusters associated with COVID-19 occurring in other states of India in the coming weeks?

#### In scenario of community transmission

- What is the risk associated with COVID-19 infection for people in state/city X?
- What is the risk of widespread and sustained transmission in India in the coming weeks?
- What is the risk for healthcare systems capacity in India in the coming weeks?
- What is the risk of severe impact on the Indian society?

### Key messages

Risk assessment:

- 1. Supports defendable and proportional decision making, especially where information is limited and the level of uncertainty high
- 2. Is a continuous process should occur many times during an event
- 3. Helps to predict, plan and understand what levels of risk to accept
- 4. Helps communicate levels of risk and rationale for decision making to a technical and wider audience











### Thank you

