Community Mitigation Strategies: Purpose, Components, Key Partnerships, and Decision Making

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Objectives of the Presentation

- Understand community mitigation strategies to respond to an influenza pandemic
- Identify the key components of the decision-making process for use of community mitigation measures during an influenza pandemic

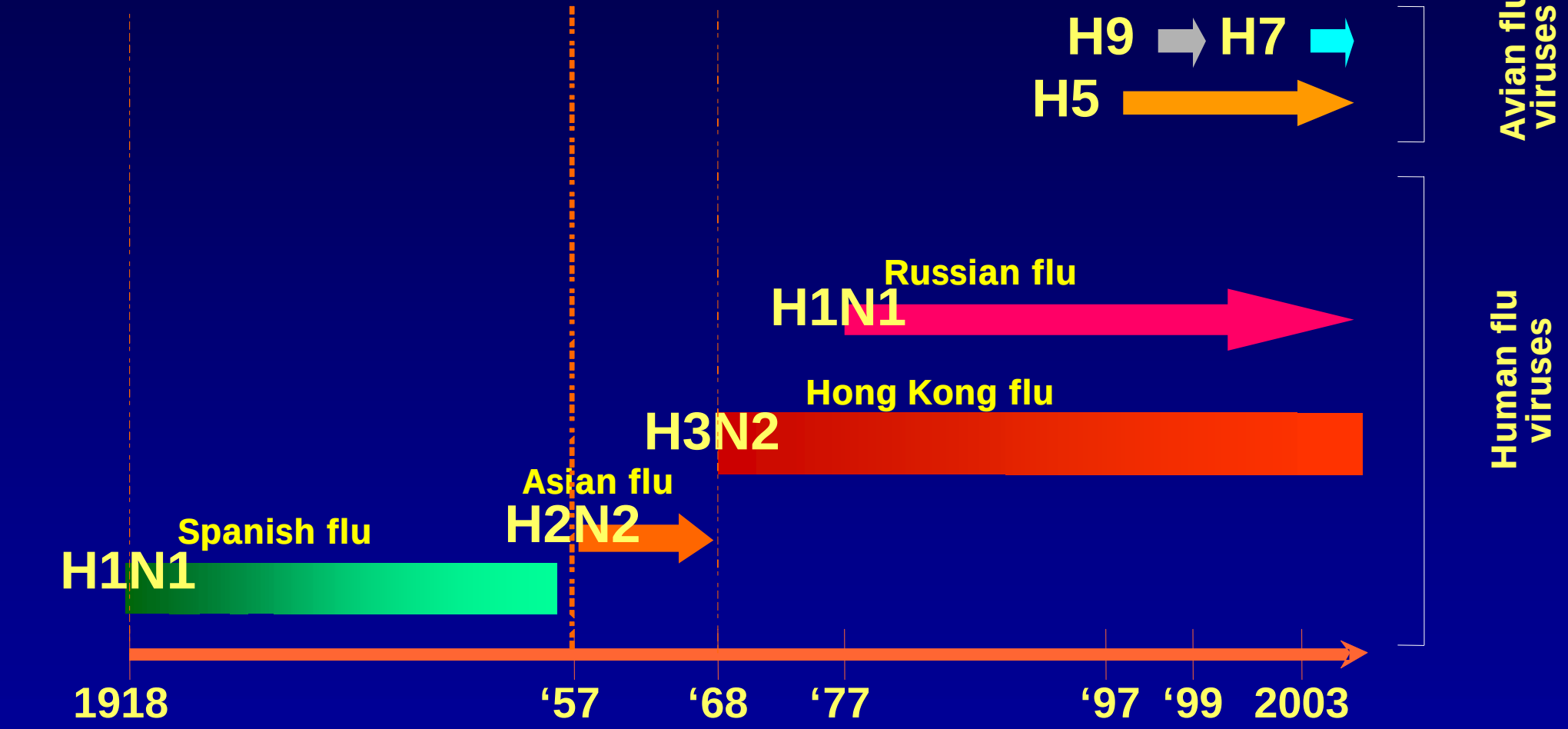
What is a Pandemic?

Criteria:

- New influenza virus in the human population
- Can cause serious illness
- Spreads easily from person to person in sustained way

- Pandemics can be mild, moderate, or severe in their impact
- 2009 H1N1 was a new influenza virus
- Unlike seasonal influenza, most people had little immunity to the virus

Influenza A Periodically Shifts to a new Predominant Subtype



www.cdc.gov/H1N1flu

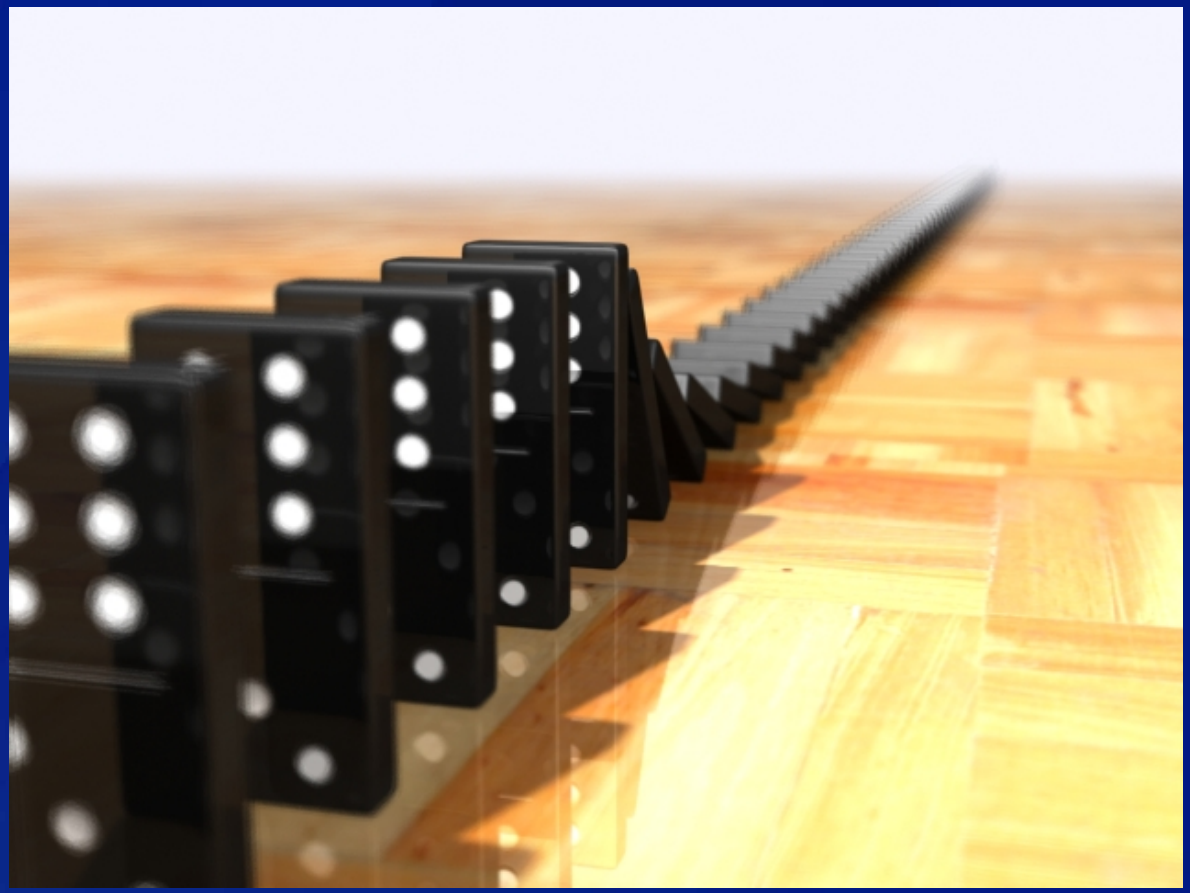
H1N1 Wasn't Severe, So Why Plan Now?

- Influenza is unpredictable! We cannot know when the next novel flu virus will emerge or how bad it will be
- H5N1 is still affecting birds and humans and still poses the threat of a severe human pandemic
- For a severe pandemic, many people may suffer and die and a prolonged response may be needed (possibly up to 12 weeks in a community for a wave; multiple waves)
- Advance planning is required
- Tough decisions will be needed during a pandemic
- Planning takes time, partnerships and resources

WHO Stages of Pandemic Response

- Recognize the Event
- Verify the Event – Assessment
- Contain – Implement interventions to reduce disease burden and contain or delay the spread of infection (WHO Rapid Reaction)
- Mitigate – Implement interventions to reduce disease burden in communities and reduce the spread of infection
- Recovery and Prepare for Subsequent Waves – Develop, coordinate and execute restoration plans and measures to mitigate the effects of future waves

How Do We Break the Cycle of Transmission?



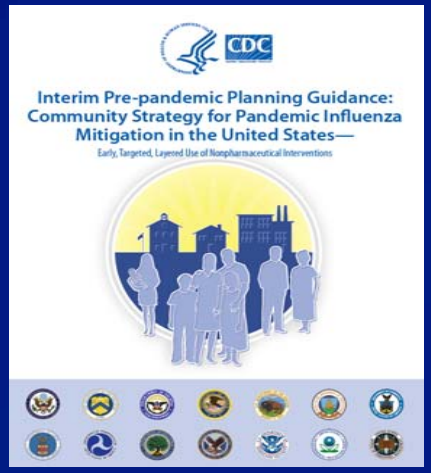
How Influenza Viruses Spread

Flu is spread primarily through respiratory droplets

- Coughing
- Sneezing
- Touching respiratory droplets on self, another person, or an object, then touching mucus membranes (e.g., mouth, nose, eyes) without washing hands

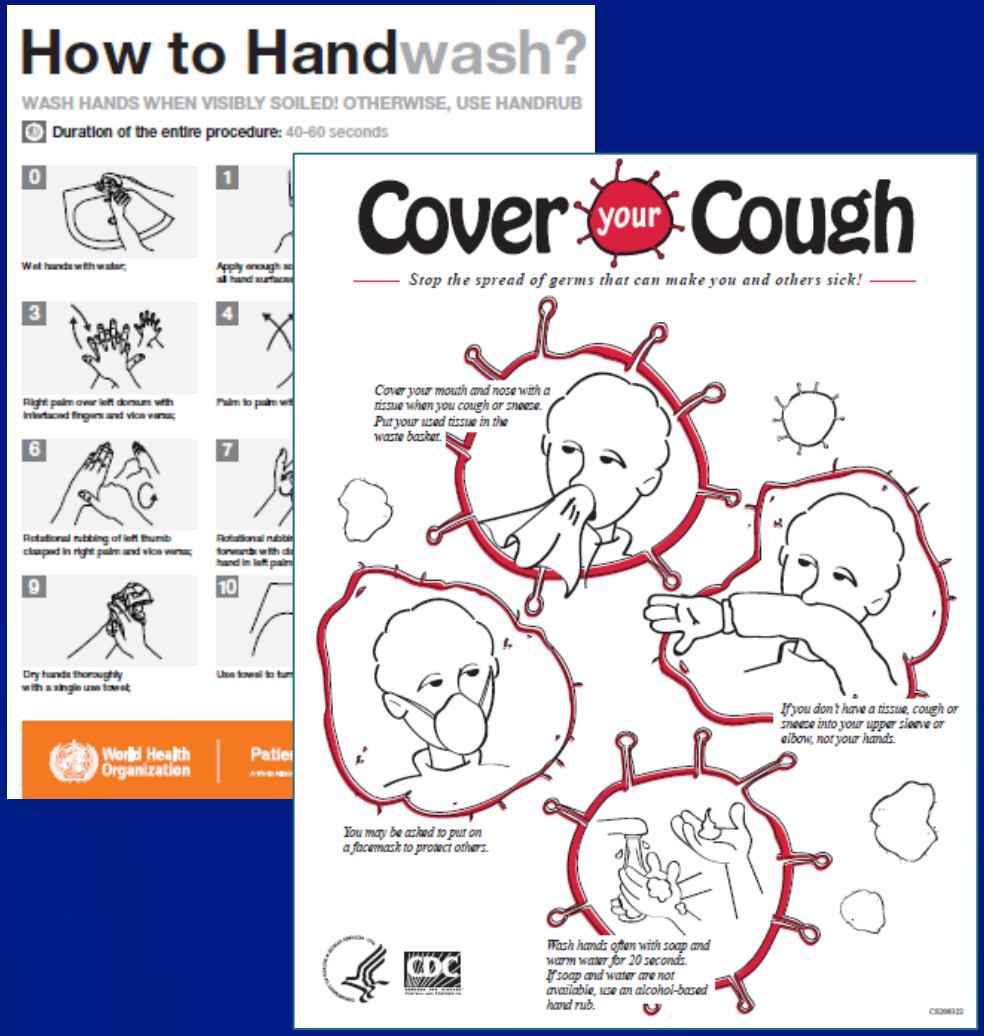
Tools in Our Toolbox

- **Pharmaceutical**
  - Vaccine
  - Antiviral medications
- **Non-pharmaceutical**
  - Infection control measures
  - Community mitigation measures



Infection Control Measures

- Hand hygiene
- Covering coughs and sneezes
- Facemasks
- Environmental cleaning



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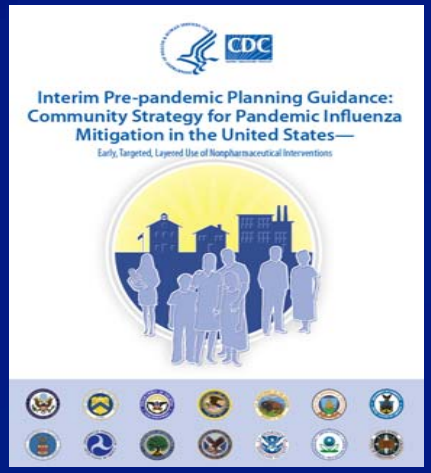
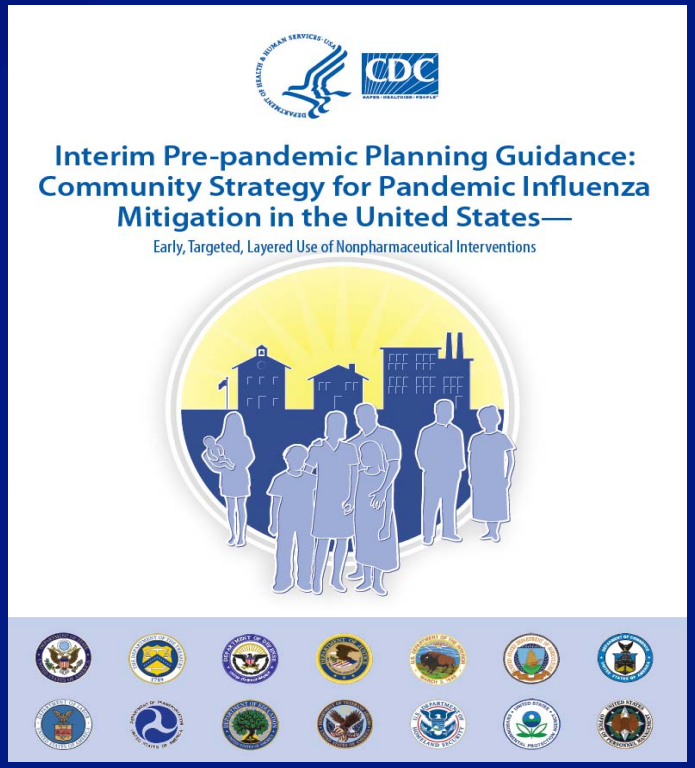


Community Mitigation

- Non-pharmaceutical strategies that do not involve vaccines or medications
- First line of defense to mitigate the spread of influenza
- Measures that are available to everyone

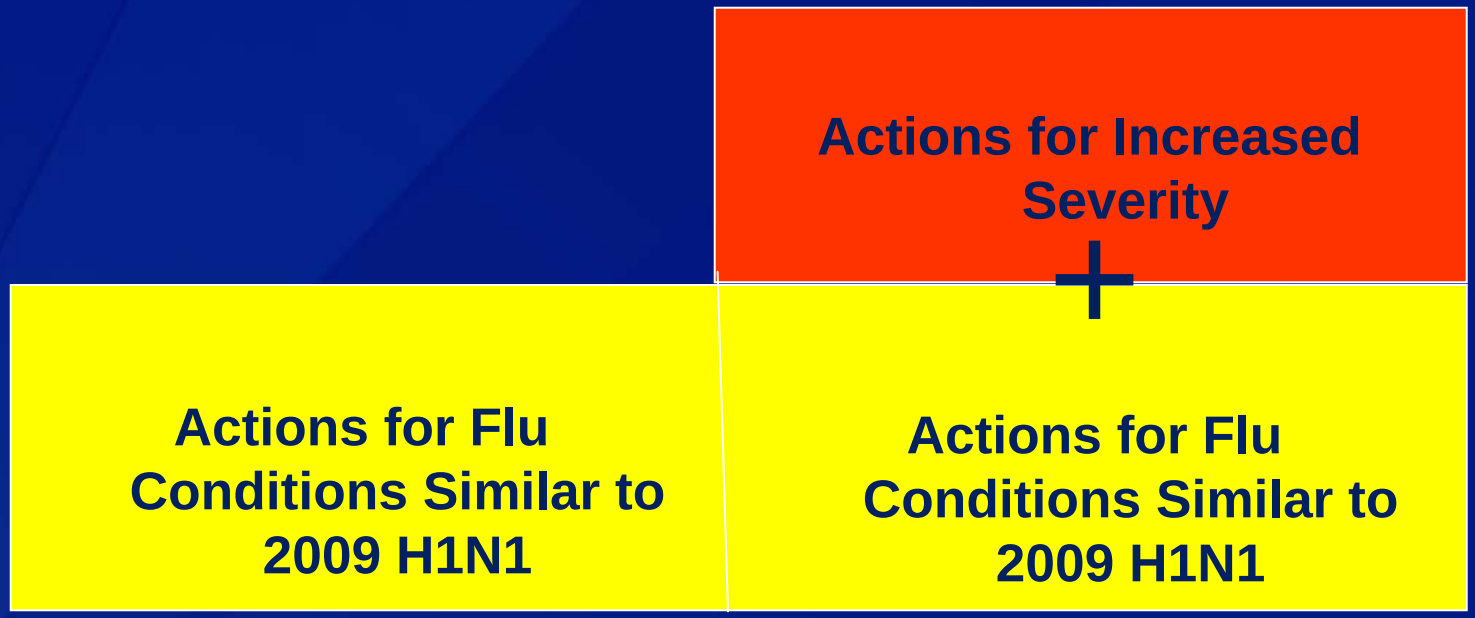


Social Distancing

Community Mitigation Measures Recommended by CDC for 2009 H1N1

- **For ALL levels of severity:**
  - Ask sick people to stay home and treat those at higher risk for complications with antiviral medications
- **If severity increases, consider adding some/all of these measures:**
  - Ask families to keep children at home if there is an ill household member
  - Dismiss children from schools, close child care centers and keep kids and teens from re-congregating in large groups in the community
  - Increase social distancing at work and in the community

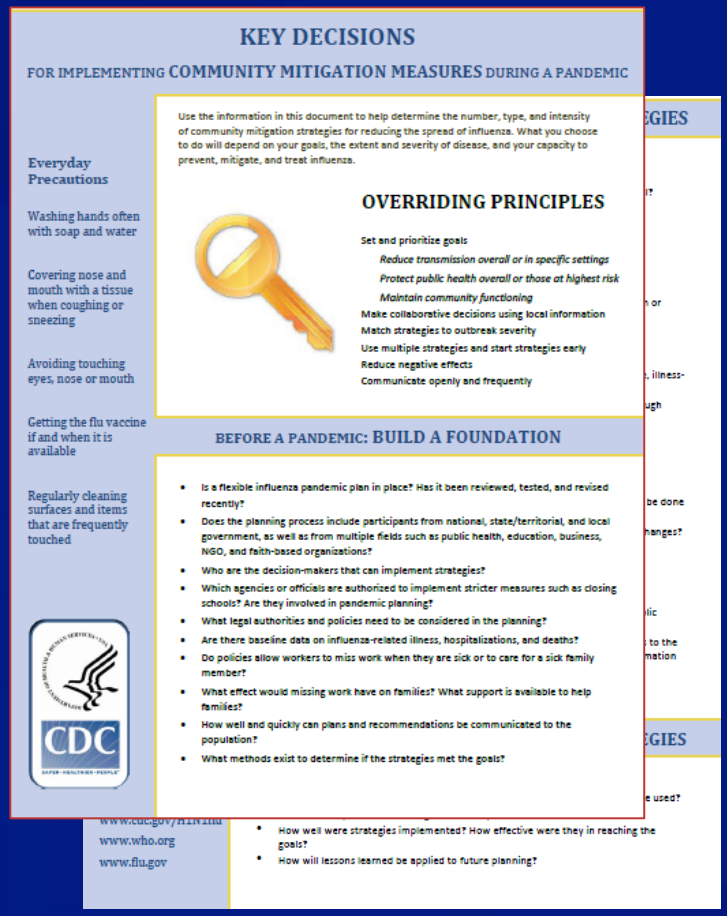
Pandemic Planning: Where Do We Start? Prepare for Two Scenarios



Key Decisions For Implementing Community Mitigation Measures During a Pandemic

Planning for using community mitigation measures should include these decisions:

- What to do? (some, all, none)?
  - Sick people stay home
  - Dismiss students or close schools
  - Keep children at home
  - Quarantine families with ill person
  - Social distancing at work or in the community
  - Cancel religious services
  - Cancel large gatherings or events



KEY DECISIONS

FOR IMPLEMENTING COMMUNITY MITIGATION MEASURES DURING A PANDEMIC

Use the information in this document to help determine the number, type, and intensity of community mitigation strategies for reducing the spread of influenza. What you choose to do will depend on your goals, the extent and severity of disease, and your capacity to prevent, mitigate, and treat influenza.

Everyday Precautions

Washing hands often with soap and water

Covering nose and mouth with a tissue when coughing or sneezing

Avoiding touching eyes, nose or mouth

Getting the flu vaccine if and when it is available

Regularly cleaning surfaces and items that are frequently touched

OVERRIDING PRINCIPLES

Set and prioritize goals

- *Reduce transmission overall or in specific settings*
- *Protect public health overall or those at highest risk*
- *Maintain community functioning*

Make collaborative decisions using local information

Match strategies to outbreak severity

Use multiple strategies and start strategies early

Reduce negative effects

Communicate openly and frequently

BEFORE A PANDEMIC: BUILD A FOUNDATION

- Is a flexible influenza pandemic plan in place? Has it been reviewed, tested, and revised recently?
- Does the planning process include participants from national, state/territorial, and local government, as well as from multiple fields such as public health, education, business, NGO, and faith-based organizations?
- Who are the decision-makers that can implement strategies?
- Which agencies or officials are authorized to implement stricter measures such as closing schools? Are they involved in pandemic planning?
- What legal authorities and policies need to be considered in the planning?
- Are there baseline data on influenza-related illness, hospitalizations, and deaths?
- Do policies allow workers to miss work when they are sick or to care for a sick family member?
- What effect would missing work have on families? What support is available to help families?
- How well and quickly can plans and recommendations be communicated to the population?
- What methods exist to determine if the strategies met the goals?

www.who.org

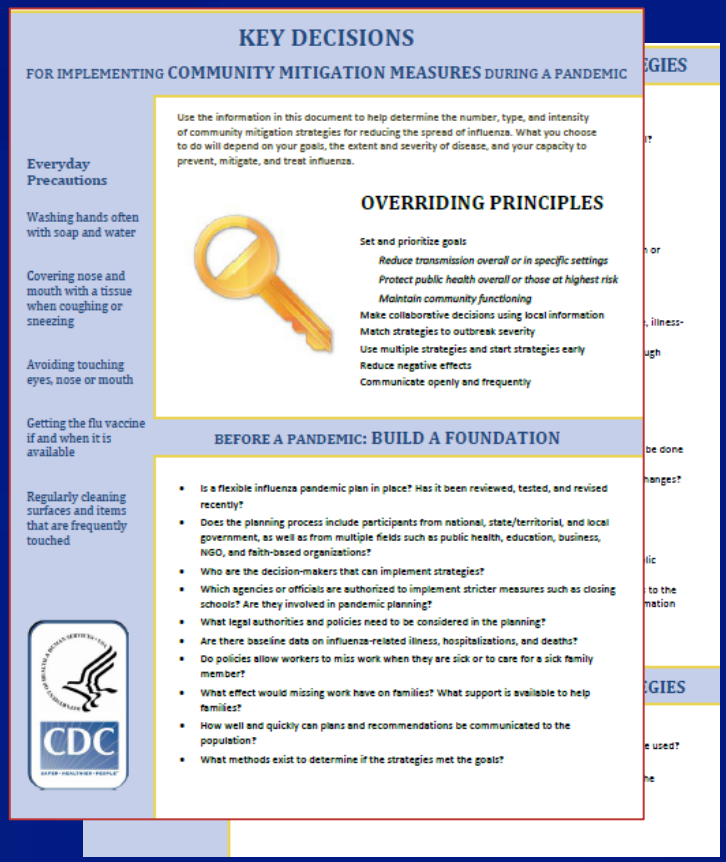
www.flu.gov

- How well were strategies implemented? How effective were they in reaching the goals?
- How will lessons learned be applied to future planning?

Key Decisions For Implementing Community Mitigation Measures During a Pandemic

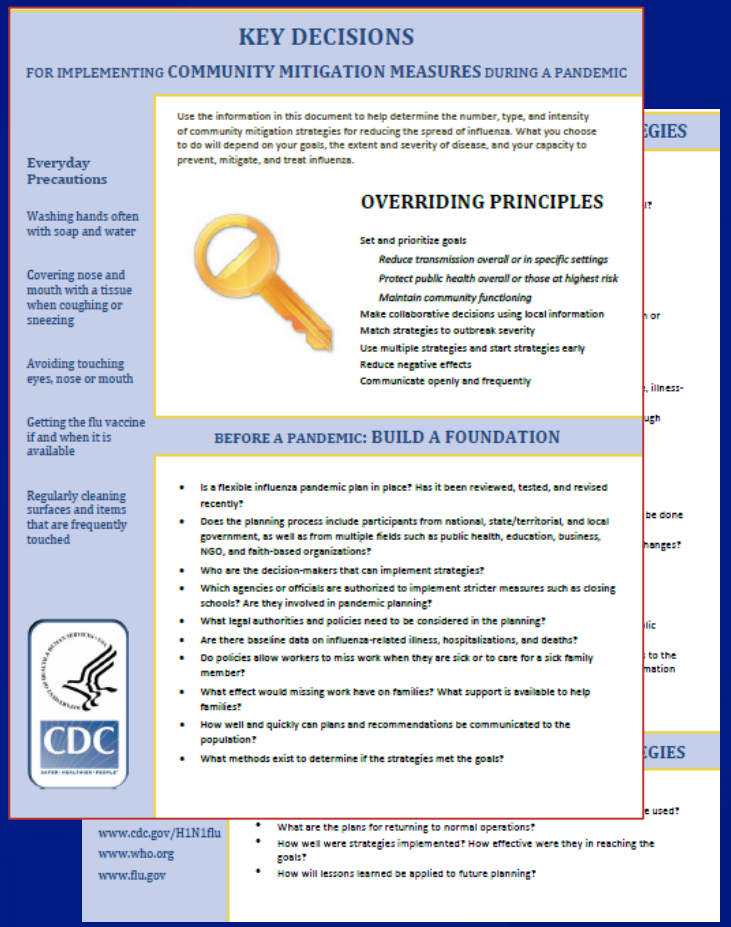
Planning for using community mitigation measures should include:

- What to do?
- When to do it?
- How to get best outcome?



Overriding Principles for Making Decisions about Implementing Community Mitigation Measures

- What to do?
  - First step: Set and prioritize goals
  - Match strategies to outbreak severity



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www.cdc.gov/H1N1flu

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- What are the plans for returning to normal operations?
- How well were strategies implemented? How effective were they in reaching the goals?
- How will lessons learned be applied to future planning?

Severity of Pandemic and Focus of Response

Everyone

High Risk for complications

Very vulnerable

During H1N1, the People at Higher Risk for Complications from Influenza

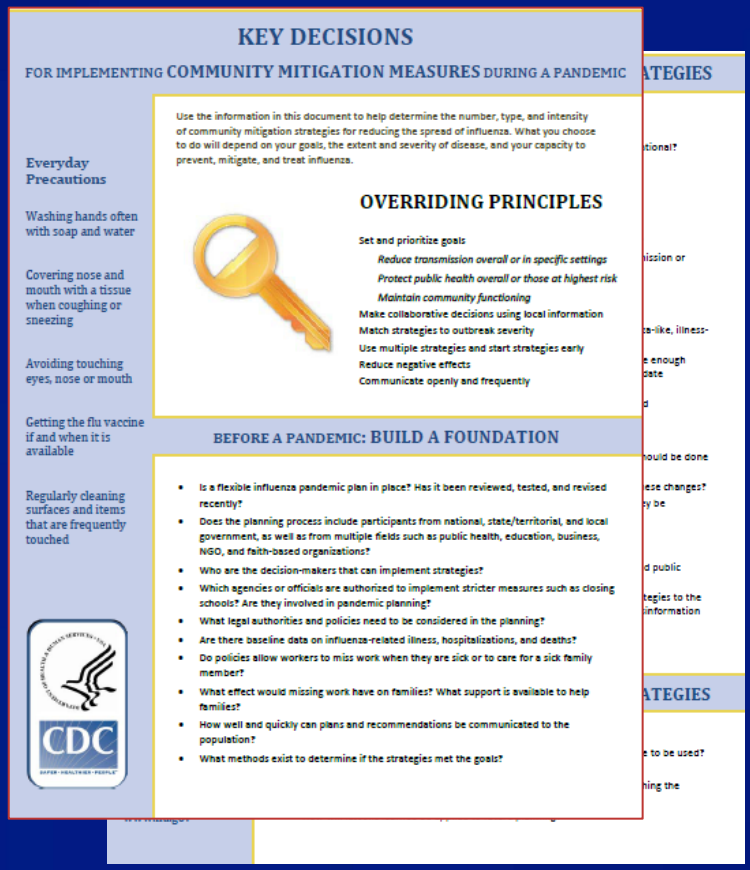
- Children less than 5 years of age
- Pregnant women
- Adults and children who have asthma, heart disease, diabetes, and certain other chronic medical conditions
- Adults and children who have suppressed immune systems (caused by medications or by HIV)
- People over 65 years of age

Children

- Introduce influenza to household
- More susceptible
- Shed more virus and shed virus longer than adults
- Not good at hygiene
- Have more close contacts with others/day

Overriding Principles for Making Decisions about Implementing Community Mitigation Measures

- Who makes decisions?
  - Make collaborative decisions using local information and local acceptability



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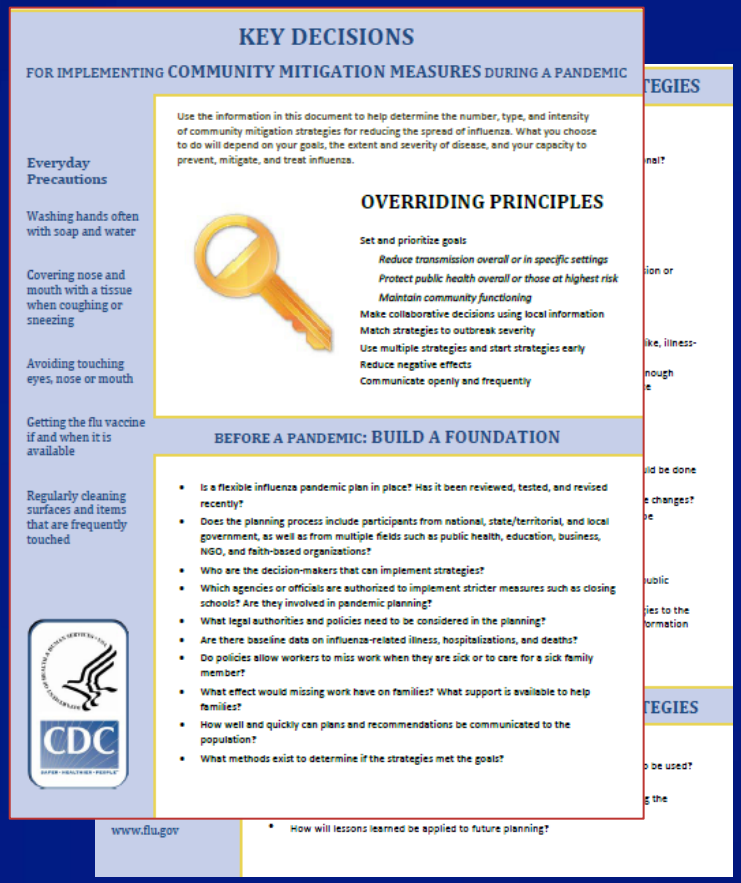
Overriding Principles for Making Decisions about Implementing Community Mitigation Measures, cont.

- When to do it?
  - Match strategies to outbreak severity
  - Use multiple strategies and start strategies early
- How to get best outcome?
  - Assess public reaction
  - Reduce negative effects
  - Communicate openly and frequently



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CDC

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Before a Pandemic: Build a Foundation

- Is a flexible pandemic plan in place? Has it been tested and recently updated?
- Does the plan include and identify stakeholders, decision makers, authorities, and policies?
- Are there systems for gathering data on influenza-related illness, hospitalizations and deaths?
- Are there policies and support for ill persons who need to miss work?
- How can the plans be communicated to the public?
- What methods exist to determine if the strategies met the goals?

During a Pandemic: Select and Start Strategies

- Examine the epidemiology
  - Need active surveillance
  - Determine extent and severity of influenza-like illness
  - Are there certain groups of people or areas of the country more affected?
- Consider health care
  - Determine capacity and availability of health care facilities and availability of antiviral medicines

During a Pandemic: Select and Start Strategies, cont.

- Implement strategies
  - Select strategies that match the situation
  - Determine when and in what order to implement
  - Address needed changes to legal authority or policy
  - Identify resources and obstacles
  - Focus on public communication and concerns
  - Measure benefits and reduce negative effects

- At the beginning of a novel influenza virus outbreak , we may have little information
- We may have to provide guidance to schools, businesses, and the public, nonetheless
- Sometimes we have to change our recommendations as more information is known

CDC Guidance for School Dismissal/Closure, 2009 H1N1 Pandemic

- Initially, little information was known and early data from Mexico seemed to indicate severe disease
- April 28th – first guidance on school dismissal released (7 day dismissal and then reassess)
- May 1st – revised guidance on school dismissal (schools close for 14 days)
- May 5th – revised school guidance (does not recommend pre-emptive school closure)
- August 7th – final school guidance released (base school dismissal on local conditions and severity of disease)

Measures in school settings

Pandemic (H1N1) 2009 briefing note 10

11 SEPTEMBER 2009 | GENEVA -- WHO is today issuing advice on measures that can be undertaken in schools to reduce the impact of the H1N1 influenza pandemic. Recommendations draw on recent experiences in several countries as well as studies of the health, economic, and social consequences of school closures. These studies were undertaken by members of a WHO informal network for mathematical modelling of the pandemic.

Experience to date has demonstrated the role of schools in amplifying transmission of the pandemic virus, both within schools and into the wider community. While outbreaks in schools are clearly an important dimension of the current pandemic, no single measure can stop or limit transmission in schools, which provide multiple opportunities for spread of the virus.

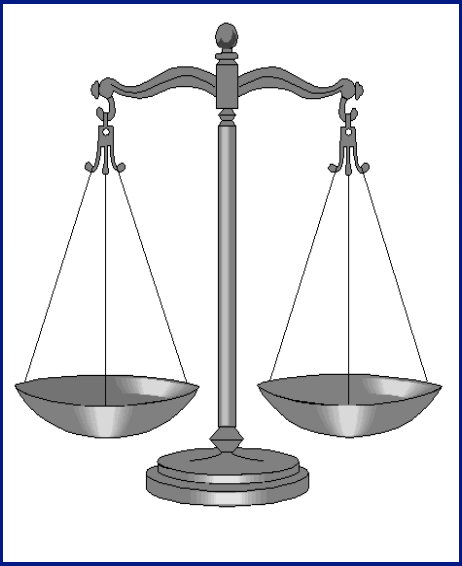
WHO recommends the use of a range of measures that can be adapted to the local epidemiological situation, available resources, and the social role played by many schools. National and local authorities are in the best position to make decisions about these measures and how they should be adapted and implemented.

WHO continues to recommend that students, teachers, and other staff who feel unwell should stay home. Plans should be in place, and space made available, to isolate students and staff who become ill while at school.

Schools should promote hand hygiene and respiratory etiquette and be stocked with appropriate

How Will You Address Challenges to Implementing the Strategies?

- What are the key public concerns affecting the community? Are there rumors you can counter?
- What can you do to empower personal responsibility and protective action?
- What secondary effects can you expect from the interventions under consideration? Can these secondary effects be reduced?
- Will the community support the interventions? What can you do to increase public cooperation?



When Should You Start Using Community Mitigation Measures?

- Historical analyses and mathematical modeling show earlier action may be better
- However, acting early may be difficult
- Using several measures together have shown (theoretically) to have more impact
- Surveillance date are needed to assess severity and transmission of disease, as well as affected areas and differences in outbreaks
- Proactive actions vs. reactive actions will be based on severity, extent of disease, acceptability

After a Pandemic: Stop and Evaluate Strategies

- Duration of measures should be based on effectiveness, public support, and adherence
- What are the triggers for stopping strategies?
- How difficult will it be to stop strategies? Should some strategies continue to be used?

After a Pandemic: Stop and Evaluate Strategies, cont.

- What are the plans for returning to normal operations?
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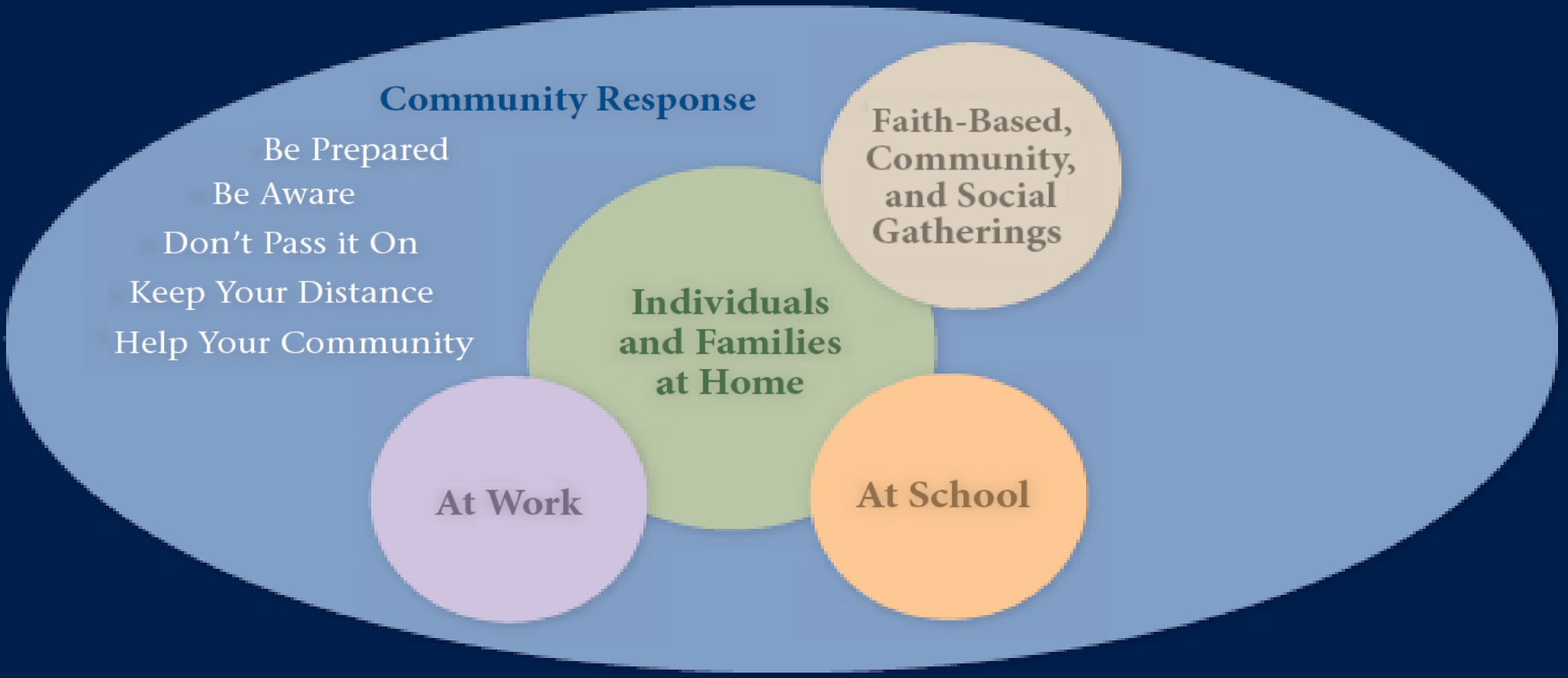
Individual, Family, and Community Response to Pandemic Influenza



Establish Partnerships: Education Leaders

- Outreach to leaders in schools, child care centers and universities is needed for pandemic planning and response
- Authorities for school dismissal/closure needs to be examined as part of planning
- Schools can be important partners in giving public health messages to parents and students
- Planning will be needed if school services (e.g. lunch) are disrupted

Establish Partnerships: Businesses and Employers

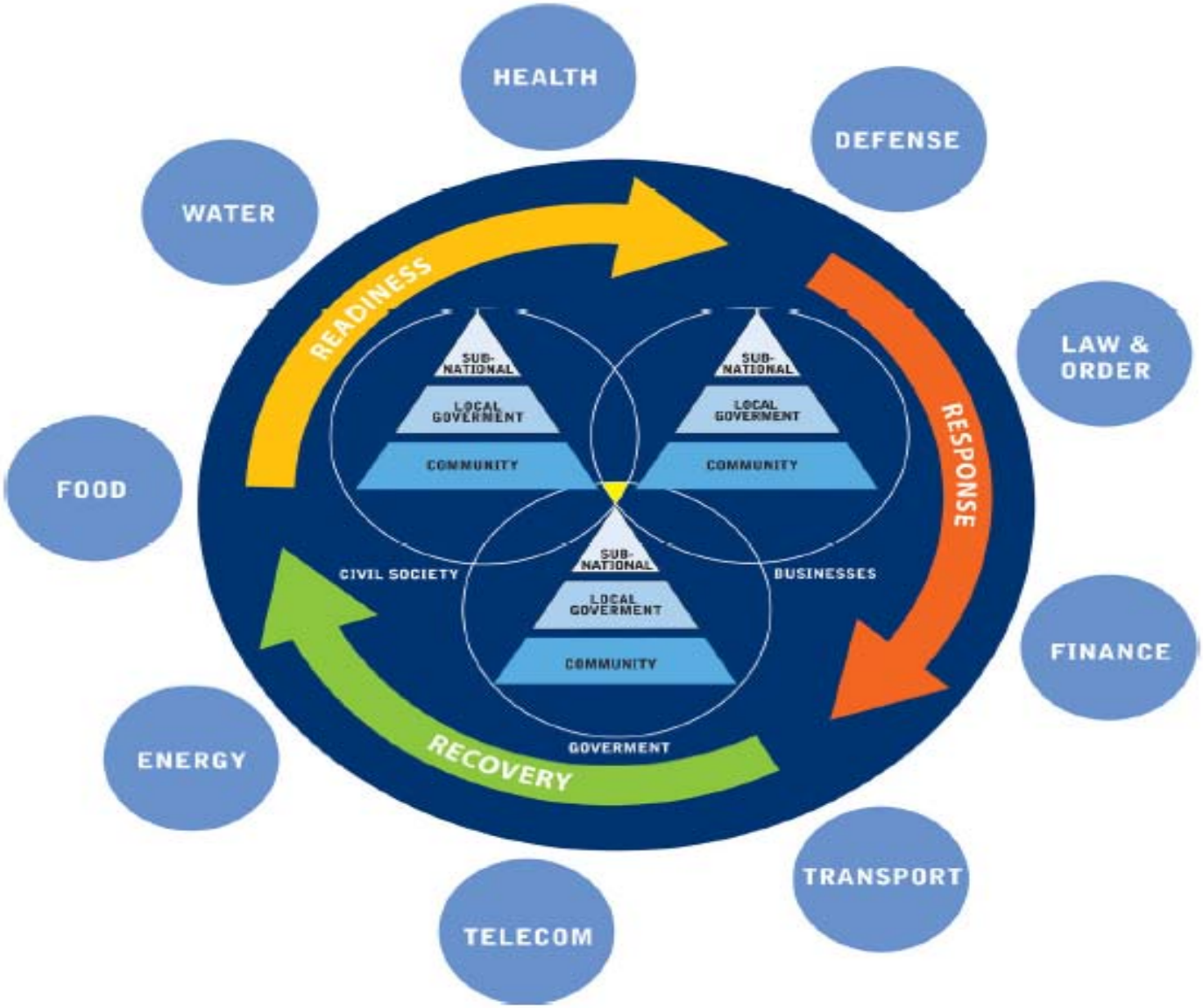
- Businesses play key roles in planning and response
  - Protect the health of the workforce
    - Influence whether sick workers can stay home
    - Use hygiene and social distancing measures at workplace
  - Keep businesses operational (especially critical infrastructure)
  - Assure functioning of communities

Key Issues for Businesses/Employers

- Business Continuity Planning – how to keep the community functioning during a severe pandemic?
- Pandemic planning needs to include representatives from businesses and outreach to small businesses
- Some businesses may need special instructions: (bird markets, health care, government and private businesses that provide critical functions [food, electricity])

WHO WHOLE-OF-SOCIETY PANDEMIC READINESS

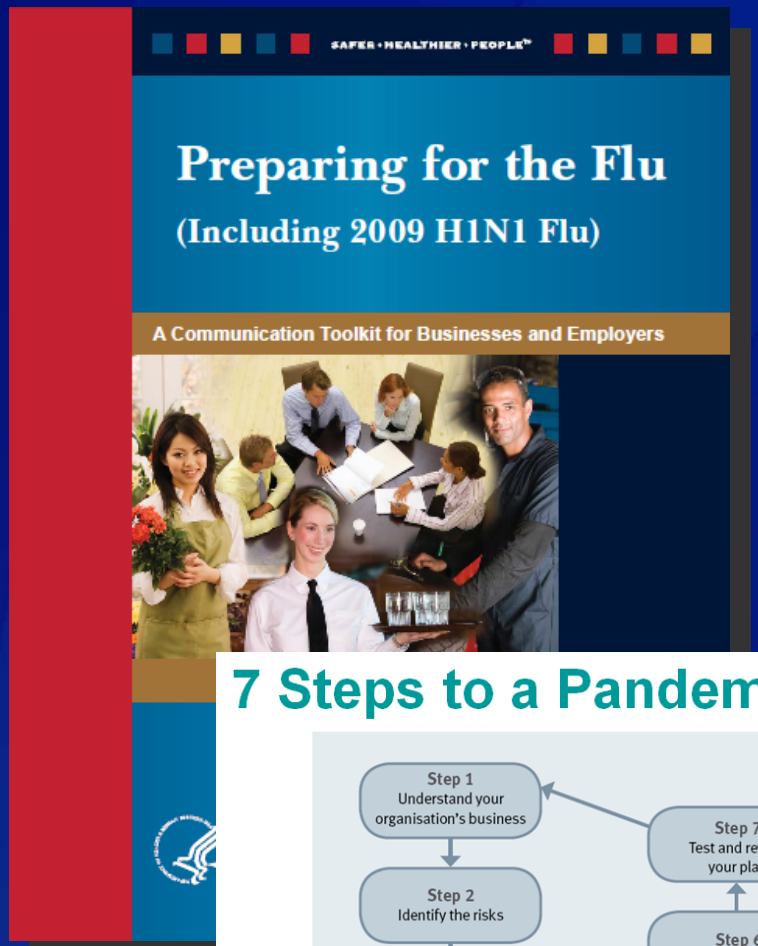
WHO Guidelines for Pandemic Preparedness and Response in the Non-health Sector (2009)



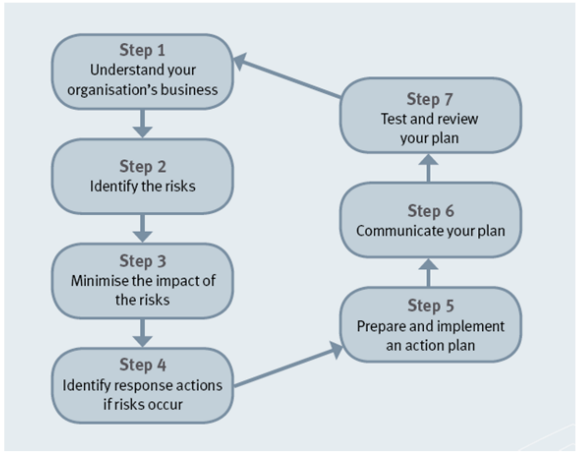
Key Issues for Continuity of Function of Government

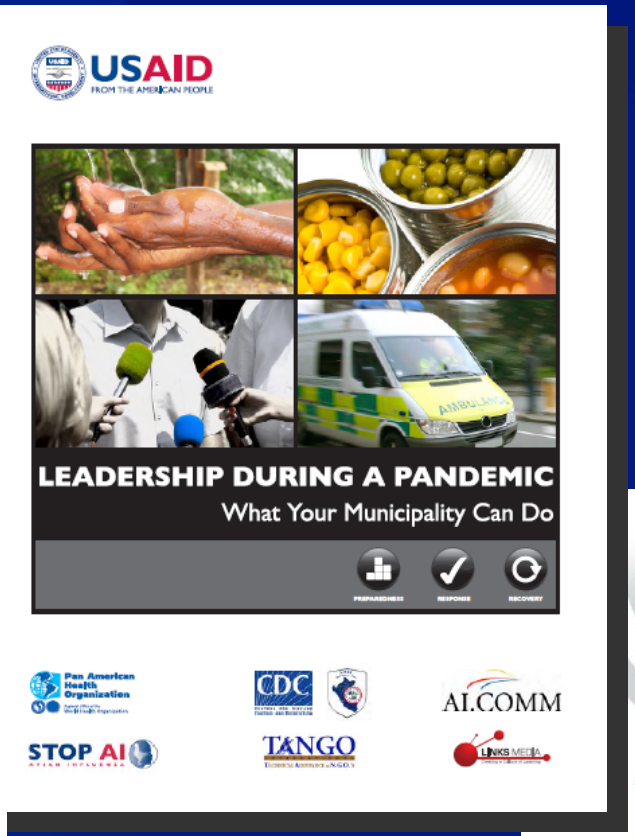
- Continuity planning – how to keep the public health and government functioning during a severe pandemic?
- Determine critical services
- How to keep continuity of functioning with increasing absenteeism?
- Develop a plan now!

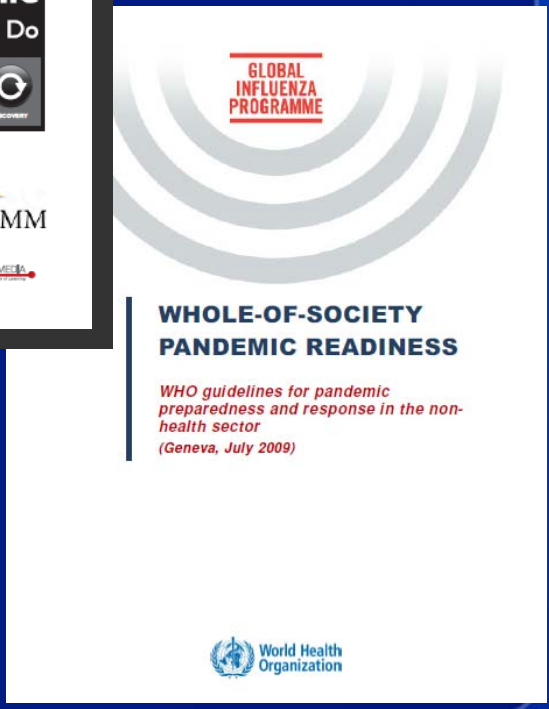
Tool Kit Resources to Help Business Pandemic Planning



7 Steps to a Pandemic Plan







Establish Partnerships: Community and Faith-based Organizations

International Federation of Red Cross and Red Crescent Societies

ICRC

- Faith leaders and community organizations can provide timely, credible information
- Reach populations difficult for government agencies to reach
- Encourage people to prepare and to practice healthy habits
- Provide information and encouragement in ways that are appropriate and meaningful for the community
- Serve as a safety net by providing services that might be disrupted
- Provide emotional comfort and support

Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO

13 January 2011

World Health Organization

Country	2003		2004		2005		2006		2007		2008		2009		2010		2011		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	2008	deaths	2009	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	0	0	0	0	0	0	0	0	0	0	8	5
Bangladesh	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Cambodia	0	0	0	0	4	4	2	2	1	1	1	0	1	0	1	1	0	0	10	8
China	1	1	0	0	8	5	13	8	5	3	4	4	7	4	2	1	0	0	40	26
Djibouti	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	25	9	8	4	39	4	29	13	1	0	120	40
Indonesia	0	0	0	0	20	13	55	45	42	37	24	20	21	19	9	7	0	0	171	141
Iraq	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2
Myanmar	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Nigeria	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1
Pakistan	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	3	1
Thailand	0	0	17	12	5	2	3	3	0	0	0	0	0	0	0	0	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	0	0	0	0	0	0	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	8	5	6	5	5	5	7	2	0	0	119	59
Total	4	4	46	32	98	43	115	79	88	59	44	33	73	32	48	24	1	0	517	306

Total number of cases includes number of deaths.
WHO reports only laboratory-confirmed cases.
All dates refer to onset of illness.
Indonesia numbers indicate cumulative total of sporadic cases and deaths which occurred during 2009.

59% mortality

Closing Comments

Leadership

Imagination

Resilience

Question and Answer Session

Thank You.

Please contact:

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