

Palo Alto Neighborhoods

Pandemic Flu Community Education

Enoch Choi, M.D.

Physician

PALO ALTO MEDICAL FOUNDATION (PAMF), SUTTER HEALTH

&

Mark Liao

PALO ALTO AREA CHAPTER OF THE AMERICAN RED CROSS

&

Ken Dueker, J.D.

Coordinator, Homeland Security

PALO ALTO POLICE DEPARTMENT

Session: February 1, 2007



**American
Red Cross**

Palo Alto Area Chapter



*Palo Alto Medical
Foundation*

A Sutter Health Affiliate

Learning Objectives

- **There will be a pandemic flu**
- **There will be no magic bullet**
- **What should I do to prepare?**

Why We Are Here:

"Prevent - Prepare - Respond - Recover"
(PPRR)

Building a Resilient Community

"It is important for us to tell the truth, not manage the truth. People can manage the truth as long as we tell them the truth."

from Santa Clara County Public Health Department, on

http://www.sccgov.org/SCC/docs%2FPublic%20Health%20Department%20%28DEP%29%2FAttachments%2FPandemicFluQAresponse_forum1.pdf

Pandemic Flu is:

- A **new virus** that:***
- 1) spreads easily from person to person worldwide***
- &***
- 2) is more deadly than seasonal influenza.***



Avian Influenza Is not YET Pandemic Flu

- Literally “bird flu,” a non-human virus that causes illness in birds.
- Very contagious among birds, wild birds ‘carry’ the virus and infect domesticated birds.
- Does not usually infect people, but the latest outbreak has caused human illness and deaths. People get bird flu from close contact with infected birds.
- **Hasn’t been able to effectively pass from person-to-person.**



Influenza Pandemics in the 20th Century

Global pandemics don't happen often:
only three times in the 20th Century.

Years	Flu	Virus	US Deaths
1918-1919	"Spanish"	Type A (H1N1)	550,000
1957-1958	"Asian"	Type A (H2N2)	70,000
1968-1969	"Hong Kong"	Type A (H3N2)	34,000

What is the Truth about Pandemic Flu?

The Santa Clara County Department of Public Health says:

“Every individual and family could be on their own, without care, for quite a while.”

—“Your Guide to Preparing for Pandemic Flu,” Santa Clara County Department of Public Health, *available on* www.sccphd.org.

The Federal Pandemic Flu Plan states:

“Due to stresses placed upon the health care system and other critical functions, civil disturbances and breakdowns in public order may occur. Likewise, emergency call centers may be overwhelmed with calls for assistance, including requests to transport influenza victims.”

from the U.S. National Strategy for Pandemic Influenza: Implementation Plan, available on <http://www.whitehouse.gov/homeland/pandemic-influenza-implementation.html>

Non-governmental pundits are a bit more bleak:

“It is widely recognized that any pandemic will cause a collapse in all medical systems in the U.S. and globally. ... In a word, expect to be on your own. How well you and your family survive will depend on how well you prepare.”

—<http://www.birdflubeacon.com/PandemicPreparation.htm>

"It is the policy of the United States to have in place a comprehensive and effective program to ensure survival of our constitutional form of government, the uninterrupted continuation of national-level essential functions under all circumstances, and the resumption of all government functions and activities quickly following any disruption. This policy is in effect for all hazards but will require specialized planning in the event of an influenza pandemic."

from the U.S. National Strategy for Pandemic Influenza: Implementation Plan, available on <http://www.whitehouse.gov/homeland/pandemic-influenza-implementation.html>

"A flu pandemic would cause massive disruptions lasting for months, and cities, states and businesses must make plans now to keep functioning — and not count on a federal rescue ..."
from Lauran Neergaard, "Chaos Feared In Pandemic Flu Plan," AP News, May 3, 2006.

"Any community that fails to prepare -- with the expectation that the federal government can come to the rescue -- will be tragically wrong."

HHS Secretary Mike Leavitt

from: Ceci Connolly, "U.S. Plan For Flu Pandemic Revealed; Multi-Agency Proposal Awaits Bush's Approval," Washington Post, April 16, 2006; A01.

How is Pandemic Flu Different?

Key Point: Pandemic Flu is different than an earthquake or most other disasters:

DURATION & DISRUPTION

“In an affected community, a pandemic outbreak will last about 6 to 8 weeks. Multiple waves (periods during which community outbreaks occur across the country) of illness could occur with each wave lasting 2-3 months.”

<http://pandemicflu.gov/plan/pandplan.html>

Vulnerability of Modern Society

- 'Just In Time' (JIT) economy means that there are not surpluses of food, other supplies (far different from 1918)
- Government services are similarly under-resourced
- No dialing 911: “Yo Yo” = you’re on your own

“In the U.S. and elsewhere, in addition to projecting a 35% rate of infection, it is anticipated that there would be food, water, fuel and power shortages. Sanitation problems are also likely. In a pandemic, it is expected that at least 50% of the workers will stay home. Without workers the economy cannot sustain itself. In some areas food distribution centers have enough food and water purification ingredients on hand for only 3 days. Without food and water pandemonium can occur quickly.” <http://www.birdflubeacon.com/PandemicPreparation.htm>

- **Note: The City of Palo Alto has only enough water for less than one day if Hetch Hetchy is out of service.**

What Might Happen Here

“There are only 2,300 hospital beds in the county. In a pandemic, half those beds will be filled with people who had to go to the hospital for other medical reasons, but 3,000-4,000 beds will be needed each week for flu patients.”

– Dr. Martin Fenstersheib, Director of Santa Clara County Health Dept.

“Local health officials estimate that 22,500-31,000 people could die from such a virus in this county alone.”

“Health officials estimate ... the flu could take up to two years to run its course. County health officials predict 23-35 percent of the 1.7 million people living in the county could get sick. That's 450,000-620,000 people who would not be showing up for work. Of those, 61,000-143,000 people could require hospitalization.”

"When you start to do the numbers ... there is no question about a doomsday scenario."

-Former Palo Alto Mayor Judy Kleinberg

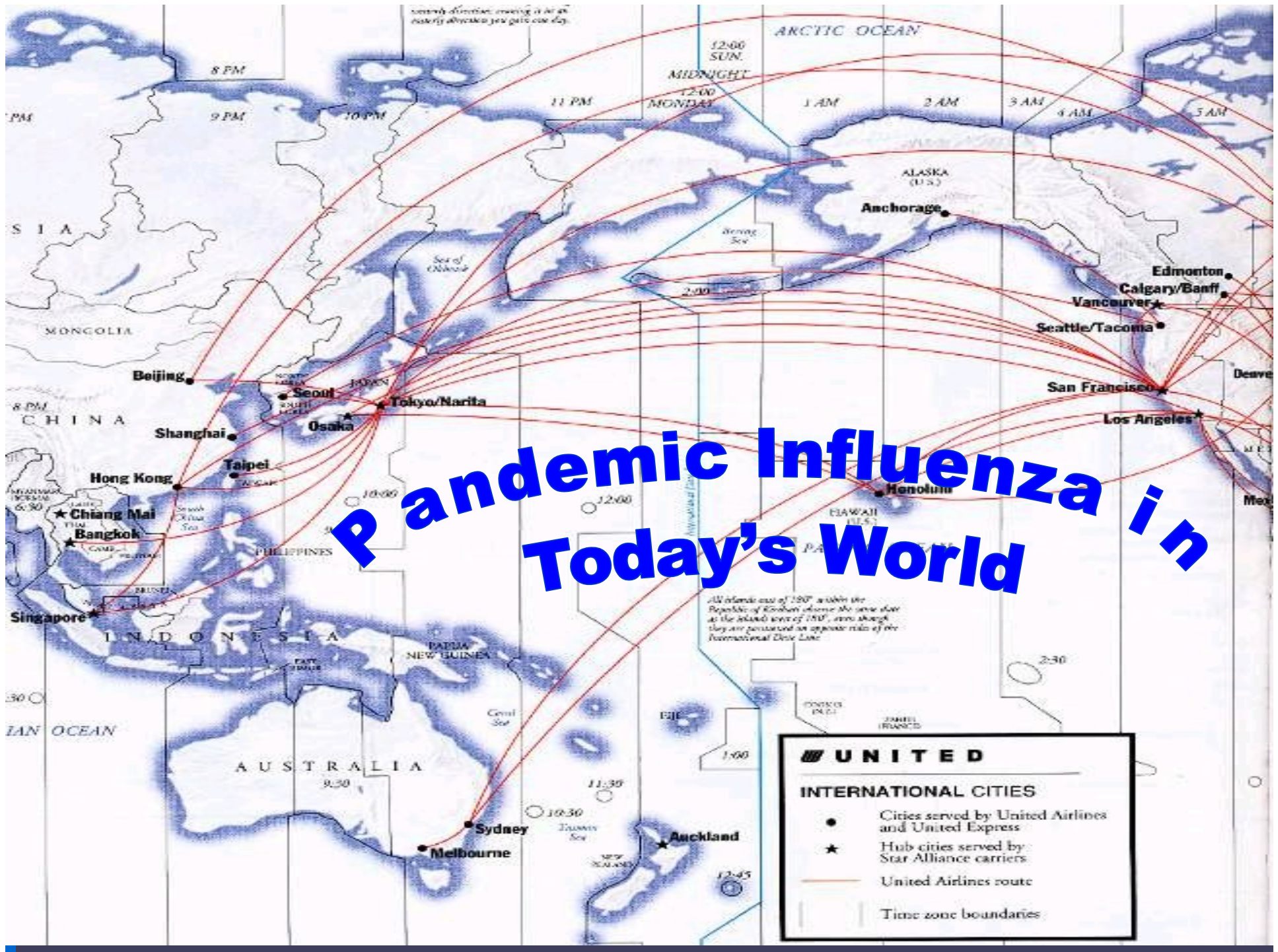
All of the above quotes were in the local paper a few months ago: Lauren McSherry. “Preventing a pandemic: Palo Alto-area prepares for avian flu,” Palo Alto Weekly, June 14, 2006, available on: http://www.paloaltoonline.com/weekly/story.php?story_id=1635

Think about “What If”

- What if you had to stay at home for 30 days? 90 days? 120 days?
- What if the schools were to be ordered closed?
- What if the power and phones went out?
- What if the water system failed?

- What if there were an earthquake right in the middle of the pandemic? (Judy Kleinberg’s “favorite” what-if)

Change your mindset: You are not a victim. 12



An Ounce of Prevention ...

- The best thing you can do is avoid getting Pandemic Flu in the first place!
- Understand:
 - There is no vaccine for Pandemic Flu today
 - Anti-Virals are in short supply and may not be effective against mutated forms of virus
 - You won't be going to the hospital: you should learn how to do "home care"
 - People will die: There are not enough ventilators to handle all the victims who might need them.

Pandemic Flu

Mode of Transmission



Primarily close contact – large droplets spread by coughing, sneezing, talking.



Preventing the Spread of Flu

Palo Alto Area Red Cross

Presented by:
Mark Liao



Healthy Habits

- Clean your hands
- Cover your cough or sneeze
 - *Cough or sneeze into your upper sleeve if you don't have a tissue*

Terminology

- Social distancing
- Isolation & Quarantine:
 - *Isolation* is a medical term of art meaning keeping exposed/sick patients away from healthy people.
 - *Quarantine* can apply to seemingly-healthy people and can be mandated or voluntary. *Quarantine* is for people who have possibly been exposed to the disease but are not necessarily symptomatic. When someone is placed in quarantine, they are also separated from others, since they may still become infectious and then spread the disease to others.

To Wash Your Hands

1. Wet hands with **warm**, running water and apply liquid soap
2. Rub hands vigorously for at least **15 seconds**, covering all surfaces and fingers
3. Scrub **nails** by rubbing them against the palms of your hand

To Wash Your Hands

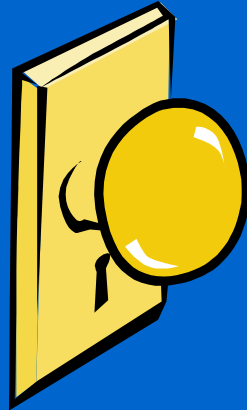
4. Rinse your hands with water
5. Dry your hands thoroughly with a paper towel, use it to turn off the faucet.

Alcohol Hand-Cleaners

- It is acceptable to use waterless alcohol hand sanitizer when your hands aren't visibly dirty
- Apply a small amount into your hand, rub it in well covering your entire hand until it is dry.

Some surfaces to keep clean

- Door knobs
- Switches
- Handles
- Toys
- Telephone receivers



Virus can live up to 2 days on surfaces like door handles

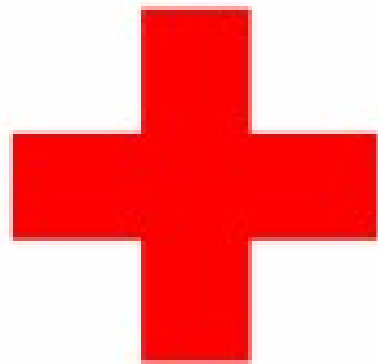
Virus can live 30 days or longer in bird carcasses, fecal matter or other fluids

Cleaning Disinfectants

- You can buy commercially available disinfectants to clean hard surfaces, *or*
- Mix $\frac{1}{4}$ cup bleach with 1 gallon water
- *(1 tablespoon in 1 quart of water)*

- *See the hand-out for detailed instructions*

The Role of the American Red Cross during a Flu Pandemic



**American
Red Cross**

Palo Alto Area Chapter

The Red Cross will...

- Educate, prepare and inform
- Provide food and supply distribution to those under isolation/quarantine
- Continue to provide every-day emergency services

We need you...

- We need you to:
 - Prepare a disaster kit which includes **everyday** supplies you may need during a pandemic
 - Stay healthy!



www.paarc.org
Palo Alto Area Red Cross

- **People clinically ill (25 - 35%): 450,000 to 620,000**
- **Hospitalizations: 61,000 to 143,000**
- **Deaths: 22,500 to 31,000**



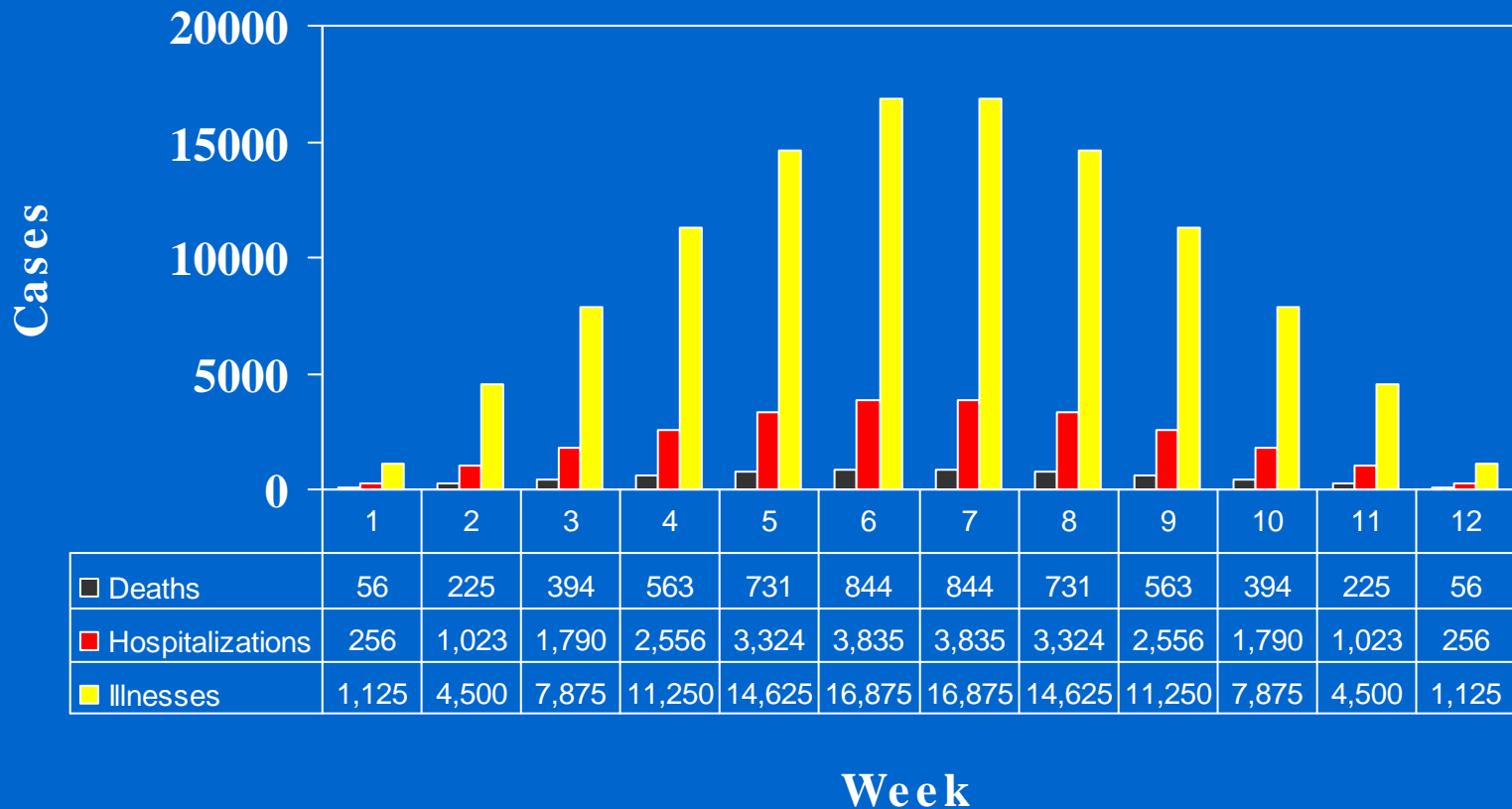
**Santa Clara County
Estimates for a major pandemic**

Pandemic Impact Health Care System

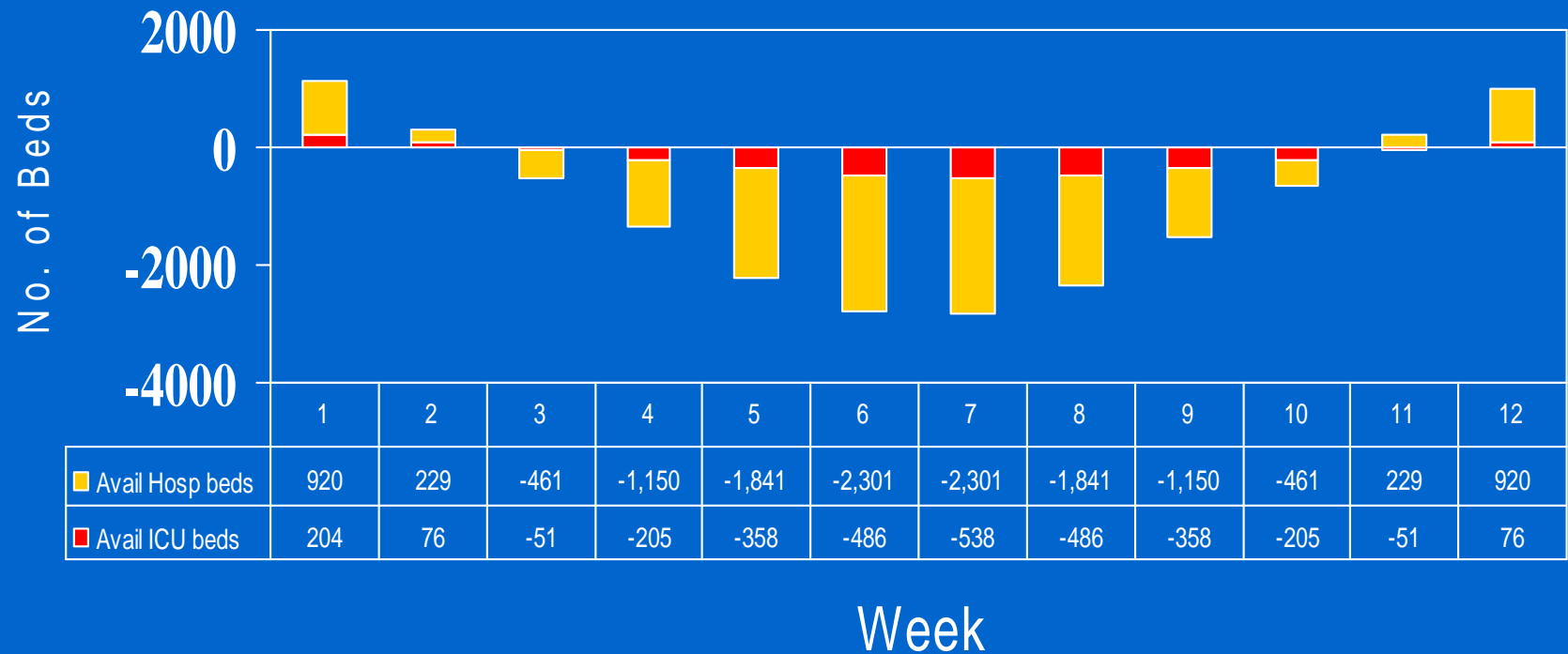
- Extreme staffing and bed shortages.
- Shortage of key supplies and critical equipment (ventilators).
- Hospital morgues, medical examiner, and mortuary services overwhelmed.
- Demand will outpace supply for months (waves of illness lasting 1-2 years).

Surge and Capacity Challenges

SANTA CLARA COUNTY HEALTH DEPT



Surge and Capacity Challenges



Pandemic Flu

Influenza Symptoms

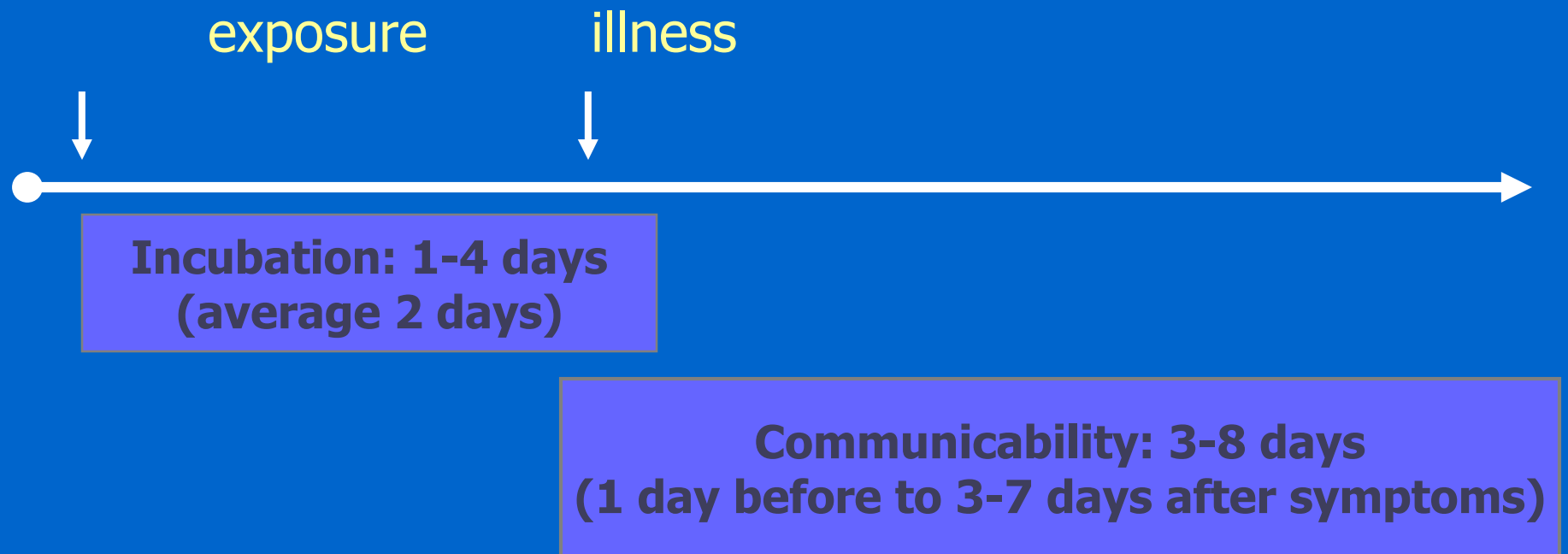
- **Rapid onset of:**
 - Fever
 - Chills
 - Body aches
 - Sore throat
 - Non-productive cough
 - Runny nose
 - Headache.
- **Children may present with GI symptoms.**

Unlike seasonal flu which is hardest on the very young and the elderly, pandemic flu hits those with strong immune systems: "Illness rates will be highest among school-aged children ..."

<http://pandemicflu.gov/general/>

Pandemic Flu

Influenza virus



Pandemic Flu Levels of Care

At Home Care

- ◆ Isolation
- ◆ Oral Hydration
- ◆ Oral Antibiotics

(for secondary pneumonia)



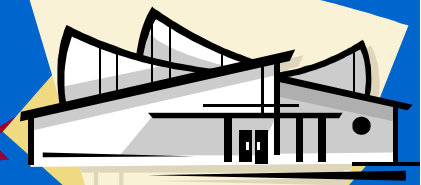
Influenza Care Centers

- ◆ Intermediate (minimally staffed with physicians and nurses)
- ◆ Board & Care
- ◆ IV hydration
- ◆ Oxygen only (no ventilators)

Hospital Care

- ◆ Critical Care
- ◆ Ventilators
- ◆ Ancillary Services

(Lab and X-ray)



Public Health Preparedness & Response System

A NETWORK of Shared Responsibility to Minimize Impact!

- ◆ People
- ◆ Plans
- ◆ Products
- ◆ Practice

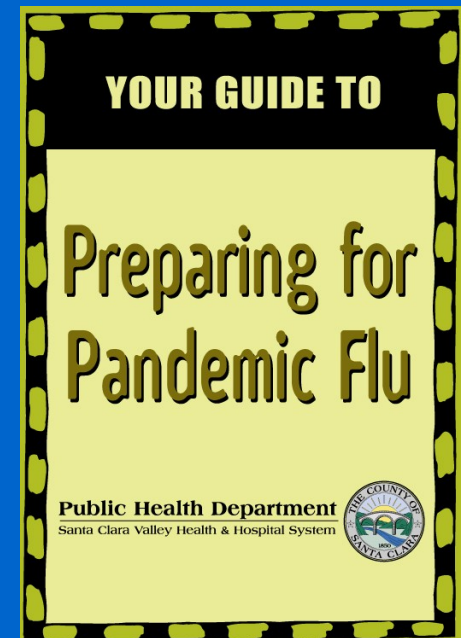


Pandemic Flu

Home Preparation

Because access to healthcare services will be limited, most people will be cared for at home.

- Know how to isolate the ill person(s) within your home. Home Isolation Checklist will be available at www.sccphd.org
- Make sure your home and office emergency preparedness kits include recommended supplies for pandemic flu.
- Always practice “cover your cough” and other measures to protect members of your household.



Pandemic Flu

Stay Informed!

Watch and read the news/check the Web:

www.sccphd.org for local information about pandemic flu including Fact Sheets and Your Guide for Preparing for Pandemic Flu

www.pandemicflu.gov for national information about pandemic and avian (bird) flu.

www.who.int for international information about pandemic flu and other international health concerns.

www.redcross.org for information about creating an emergency preparedness plan and kit.

Prevention Strategies

- N95 Masks
- Surgical Masks
- Face Shields
- Other prophylaxis
 - Pneumovax vaccination
 - What about influenza vaccinations?
 - Tamiflu?

Where to Get Info in the Event of Pandemic

The Santa Clara County Public Health Information Line (PHIL) will have updated, recorded information on pandemic influenza and other current health issues.

Staff are available to answer questions, Mon–Fri, 9 a.m.– 4 p.m.
408-885-3980

City of Palo Alto website – www.cityofpaloalto.org/oes/pandemic

Tune your radio to **KZSU 90.1 FM** to receive emergency bulletins from the City of Palo Alto and Stanford University.

Action Plan

- Prepare your household: get supplies (see Appendix / hand-outs)
- Make a family plan
- Help your neighbors get aware/prepared
- Get training: first aid, CPR, pandemic-specific learning
- Take the Pandemic Volunteer Worker Preparation class
- Get active: PAN BPC Program, PANDA, Neighborhood Watch, Red Cross, ARES/RACES Ham Radio

Questions?