

# PANIC FREE RESPONSE TO THE PANDEMIC: THE COVID-19 COMMUNITY PROBLEM

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# Format for Today

- ▣ Meet the virus
- ▣ Scenarios
- ▣ Community Mitigation
- ▣ Homework
- ▣ Discussion



# COVID-19

- ▣ Person to person transmission mostly by respiratory droplets
- ▣ Incubation period is from 2 to 14 days, most cases about 5 days
- ▣ Primary attack rate is unknown but may be as high as 30%
- ▣ Each infected patient can infect 2-3 additional people
- ▣ No confirmed cases in our community but about 100,000 cases in over 50 countries
- ▣ From 10 to 20 times more lethal than most flu strains
- ▣ PUI: Person under investigation

# COVID-19

- ▣ About 80% of cases have mild disease
- ▣ 14% have severe disease with CXR showing pneumonia and low oxygen levels requiring support
- ▣ 5% critical cases that require ICU admission and possibly respiratory ventilator support
- ▣ 1 to 2 % fatality rate
- ▣ Some patient got significantly worse in the second week of illness, some clusters have required up to 32% ICU level treatment

# COVID-19 Special Populations

- ▣ Children have mostly minor illness: cold like symptoms with rare complications, only 2%
- ▣ At risk are those over 60, people with chronic medical problems like COPD, diabetes, cardiac, immunocompromised, and renal patients
- ▣ Concentrated populations like prisons, military bases, colleges, nursing homes at risk for rapid spread



# COVID-19 Symptoms

- ▣ Fever:83-98%
- ▣ Cough: 46-82%
- ▣ Myalgia and Fatigue: 11-44%
- ▣ Shortness of breath occurs early in 31%
- ▣ Diarrhea and nausea occur prior to respiratory symptom in most
- ▣ Some report of asymptomatic patients but carrier incidence is not known

# COVID-19 Diagnosis

- ▣ Usual respiratory blood tests, cultures, swabs, CXR or Chest CT
- ▣ Must fit case definition
- ▣ Currently all specific testing for COVID-19 by viral swabs, blood, and stool or urine are sent to the state-level lab with some specimen going to the CDC.
- ▣ Lack of local testing increases time to diagnosis and may lead to more exposure to Health Care Workers and families

# COVID-19 Treatment

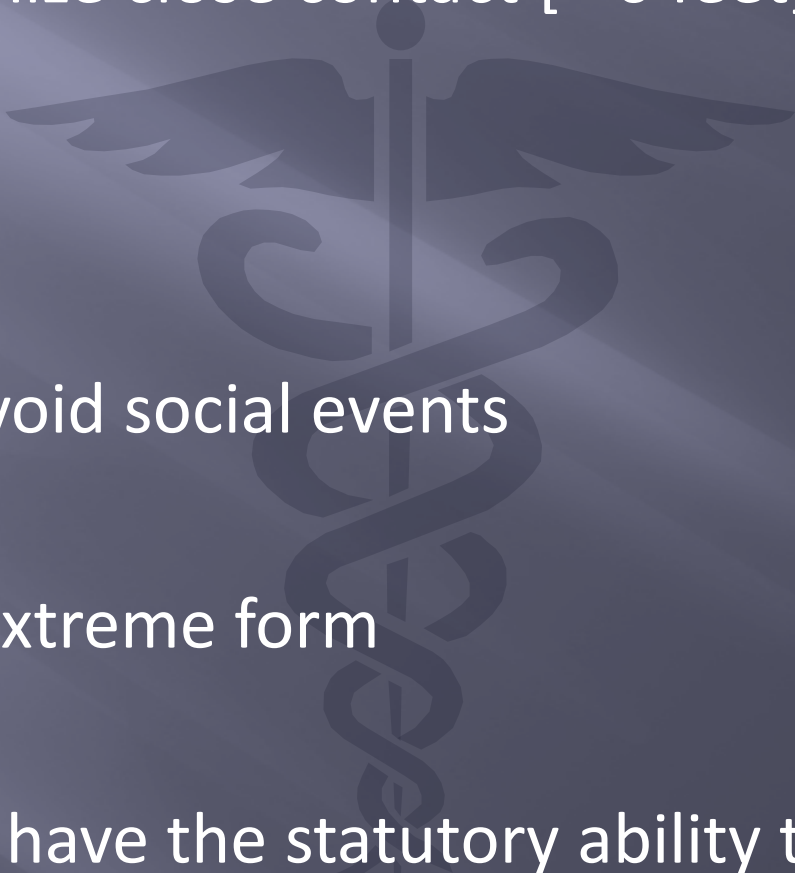
- ❑ No Vaccine currently available but is being developed
- ❑ No antiviral drugs are known to work but investigational, prototype drugs are being tested: remdesivir class
- ❑ Steroids aren't helpful, antibiotics don't help
- ❑ Proper Supportive care and Treatment of symptoms has been shown to decrease mortality
- ❑ Protection of HCW with PPE: N95, isolation gown, gloves, face shield or goggles
- ❑ FCHD has about 8000 N95 masks- the most effective type of mask



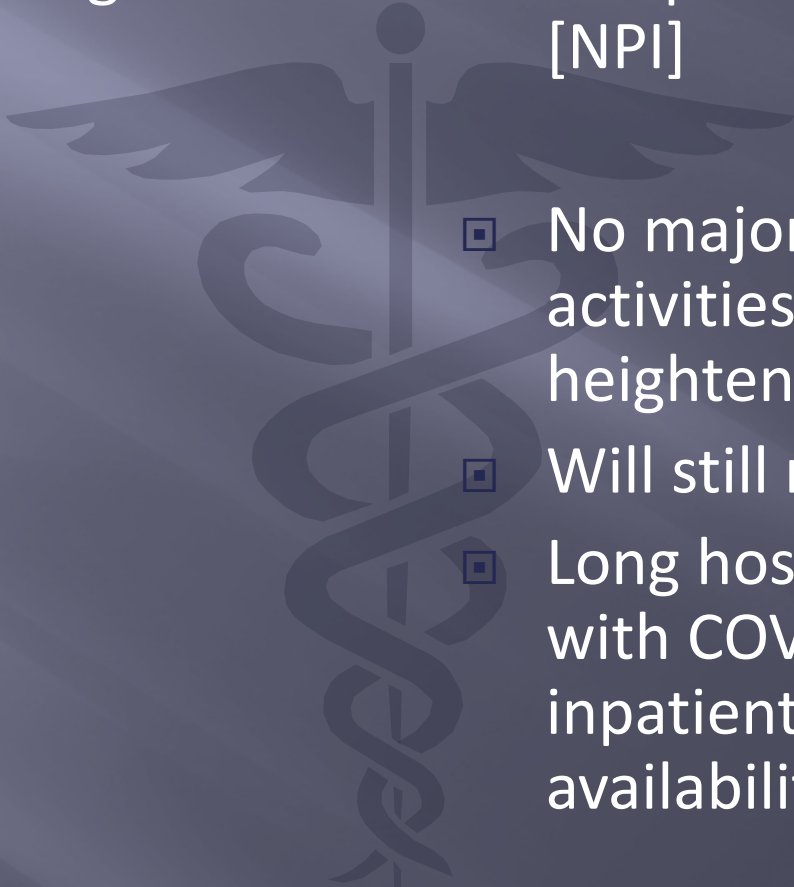
# COVID-19 Treatment

- ▣ We have a process in place to monitor PUI
- ▣ Encourage potential patients to call ahead for separate triage or waiting areas, mask potential patients
- ▣ Use AIIR, but these are limited in number [Airborne Infection Isolation Room]
- ▣ Everyone needs to improve their personal Hygiene game with frequent hand washing and/or sanitizer, sleeve sneezes and coughs, don't share personal items, stay home if you are ill.
- ▣ Daily cleaning of high touch areas in public areas

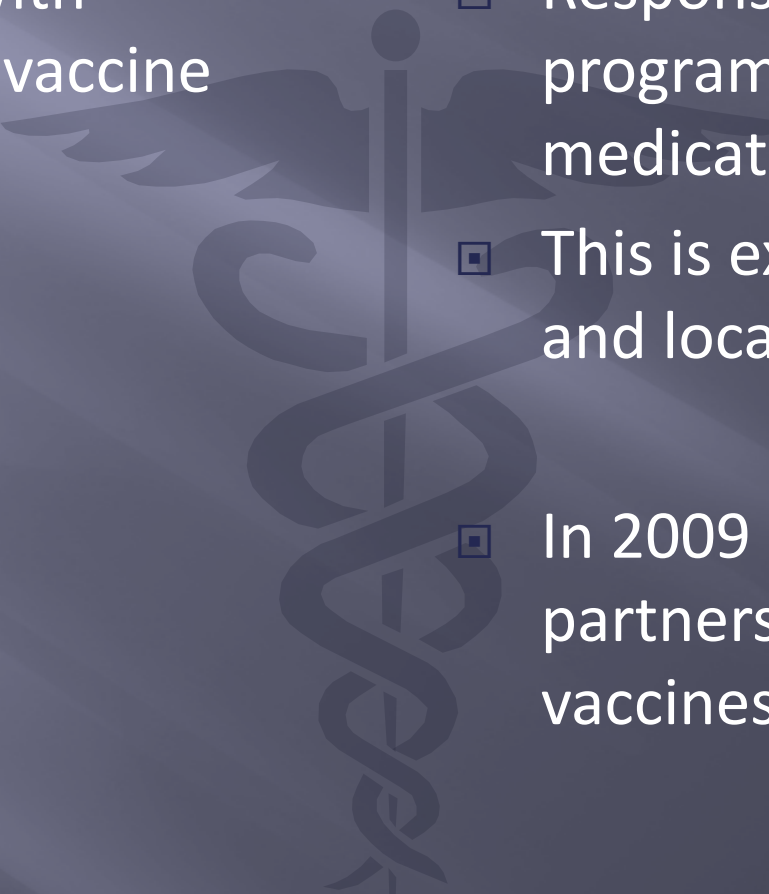
# COVID-19 Treatment by Social Distancing is a Nonpharmaceutical Intervention [NPI]

- ▣ Mask Patients, minimize close contact [ $< 6$  feet]
  - ▣ Stay home if ill
  - ▣ Work from home, avoid social events
  - ▣ Quarantine is most extreme form
  - ▣ Health Departments have the statutory ability to order this in Indiana
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# Scenario 1

- ▣ Isolated cases without large scale community infection
  - ▣ Nonpharmaceutical Interventions [NPI]
  - ▣ No major disruptions of normal activities while maintaining heightened surveillance
  - ▣ Will still need more PPE than usual
  - ▣ Long hospital stays associated with COVID-19 may still stress inpatient resources and bed availability
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## Scenario 2

- ▣ Large scale outbreak with concurrently available vaccine and/or anti-viral drugs
  - ▣ Response: mass vaccination program and/or POD type medication distribution points
  - ▣ This is exercised regularly by ISDH and local health departments
  - ▣ In 2009 FCHD and community partners gave 19588 H1N1 vaccines in a short period of time
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## Scenario 3

- ▣ Widespread local disease without vaccine or anti-viral drugs
- ▣ NPI may include bans on social events, games, travel
- ▣ Will effect all aspects of the community
- ▣ Will require answers to previously unknown problems like how do we get food to people that are shut in for 10-14 days?
- ▣ Safe volunteerism



# Community Mitigation Guidelines

- ▣ Developed by CDC, promulgated in 2017, uses lessons from previous pandemics
- ▣ Works best with community input rather than out of town expert input
- ▣ Meetings like today are essential
- ▣ School, business, nonessential services closings and cancellations have many consequences to workers and employers. These will be reserved for large scale outbreaks of illness after joint discussions. However, they are effective in certain circumstances
- ▣ If pharmaceutical measures become available during the outbreak FCHD will coordinate distribution in accordance with ISDH/CDC recommendations

# Keeping up with a very fluid situation

- ▣ Avoid: websites with a known political lean
- ▣ Avoid: reliance on some older disaster plan
- ▣ Avoid: planning local measures and responses that the Home Office or company legal might not like
- ▣ Avoid: organizational resistance to proper Public Health directives
- ▣ Do: If you are in a leadership position develop up to date contact lists in your organization.
- ▣ Do: Make sure you can be found!
- ▣ Tom Harris c812-987-3015, fchd 812-948-4726, er 812-948-6742, h 812-923-6358
- ▣ CDC.gov maintains an excellent website
- ▣ Do: call the FCHD with questions or concerns

# Homework

- ▣ 4 types of Pandemic Flu Checklists
- ▣ Use these to plan and synchronize responses
- ▣ Find out the particular concerns of your organization
- ▣ Use a short suspense date, as the rate of spread in the US is too early to call
- ▣ Practice good hygiene measures. Get all your friends to do the same
- ▣ Get the regular flu shot. Get all your friends to do the same.

# Why all this matters: by the numbers

- ▣ Floyd County Population is roughly 76000
- ▣ Attack rate of 15% [from previous pandemics] = 11400 cases
- ▣ COVID-19 Mortality rate of 2% = 228 deaths possible
- ▣ Conceptually, 4.75 school buses full of victims
- ▣ Floyd County has about 1300 deaths from all causes each year, so Pandemic of this strength would increase our mortality by 18%
- ▣ About 1 million US Deaths using this model
- ▣ Even a modest outbreak can stress resources and cause disruption

# COVID-19

Questions and Discussion

