



# Managing COVID in Populations

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# Objectives

- Discuss the history of pandemics
- Describe the difference between containment and mitigation strategies
- Go step-by-step through essential functions during pandemic mitigation
- Review the current evidence-based strategies
- Discuss some hurdles affecting frontline healthcare workers

# Affiliations/Credentials

- Physician specializing in both Emergency Medicine and EMS
- Medical Director of the Los Angeles County Fire Department
- Testing Coordinator for Los Angeles County – 3/18 – 4/17
- Emergency Physician at Providence Little Company of Mary Medical Center, Torrance



# Pandemics

- None of this is new
- Epidemics and pandemics have occurred throughout recorded history
  - Point-to-point travel



# Containment vs. Mitigation

- Containment – Attempt to reduce spread from infected to non-infected people to STOP an outbreak
  - Contact tracing, quarantines, etc.
- Mitigation – Attempt to SLOW the spread of an outbreak and lessen its impact.
  - Social distancing, lockdowns, etc.



# Containment vs. Mitigation

- Containment strategies work when the disease is:
  - Readily identifiable
  - Limited numbers
- Mitigation assumes
  - The outbreak cannot be stopped
  - Containment efforts continue but it is accepted that true containment is not achievable

# Essential Functions During Mitigation

- Surveillance and detection
- Clinical management
- Prevention of spread in the community
- Maintaining essential services



# Surveillance and Detection

- Lab capacity
  - Personnel to perform
  - Organizing ordering
  - Equipment
  - Lab availability
  - Communicating results
- Good data
  - Quick
  - Accurate
  - Geography
  - Demographics
  - Actionable





# What This Looks Like in Practice

- Symptom screening
  - Identify cases
  - Isolate
  - Access to testing
  - Timely results
- If positive:
  - Contact trace
  - Bring contacts in for testing or place on quarantine
- Lather, rinse, repeat



# Clinical Management

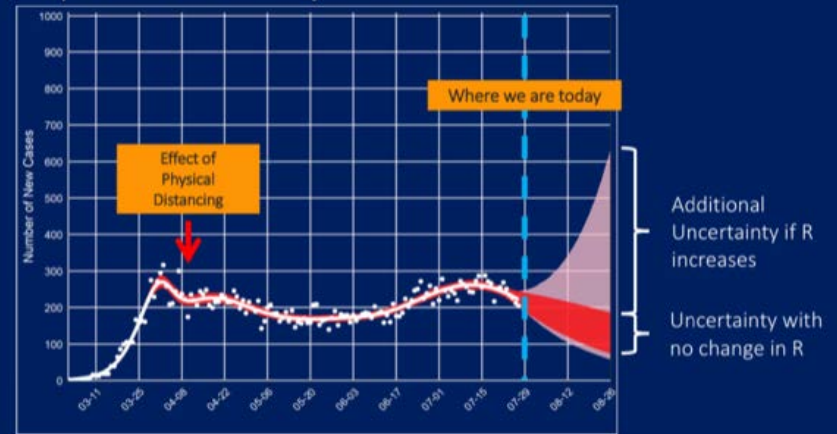
- Patient management
  - Adequate supplies of:
    - PPE
    - Medical Equipment
    - Beds
    - Staff
  - Evidence-based medicine
  - Staff trained/up-to-date in fast-changing recommendations
- Health service continuity
  - Looking at system-wide data
  - Moving patients across the state
  - Discharge planning



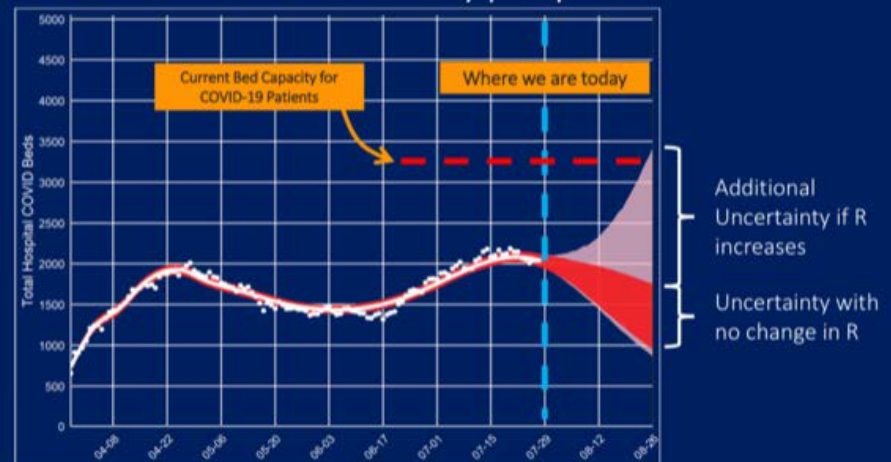
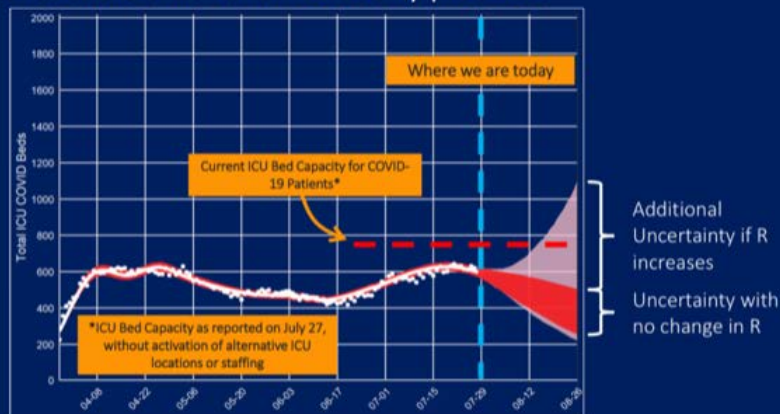
# What This Looks Like in Practice



Hospital New Patient Projections



Predictions of Demand in LA County | ICU Beds



# Prevention of Spread in the Community

- Medical countermeasures
  - Vaccination
  - Prophylaxis
- Non-medical countermeasures to contain/mitigate infections





# Maintaining Essential Services

- Essential services continuity
- Recovery



# Current Evidence\*?

- Green Light (Benefit outweighs risk)



- Remdesivir
- Dexamethasone
- High flow nasal cannulas and CPAP to avoid ventilators
- Proning/repositioning
- Convalescent plasma
- NSAIDs/Tylenol
- Anticoagulation (if evidence of clotting)

- Yellow Light (Benefit may or may not outweigh risk)



- Hydroxychloroquine +/- azithromycin for treatment
- Vitamin D
- Vitamin C
- Zinc

- Red Light (Risk outweighs benefit)

- Hydroxychloroquine +/- azithromycin for prophylaxis
- Supratherapeutic doses of vitamins/minerals for prophylaxis



\*As of 8/1/20

# Biggest Hurdles

- Supply Chains/Manufacturing
  - PPE, Testing, etc.
- Politics
- Disinformation

**What we need to know**



**Dr. Rashid Buttar**

THE CORONAVIRUS AGENDA

**PLANDEMIC**

COMING SUMMER 2020

Prior to the completion of the full-length documentary we'll be releasing a series of vignettes. The first installment features renowned scientist, ju



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COVID-19 : EXCLUSIVE INTERVIEW WITH DR. RAOULT  
HYDROXYCHLOROQUINE



**FRONTLINE DOCTORS**

RESTORING PEACE & PROTECTING FROM HARM

**at Texas Doctor  
akes Claim of  
Silver Bullet'  
COVID-19  
Treatment**



# Resources Used

- <http://www.oecd.org/coronavirus/policy-responses/flattening-the-covid-19-peak-containment-and-mitigation-policies-e96a4226/>