

COVID-19 and The Status of Healthcare in SW Florida

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A large, stylized leaf graphic in a lighter shade of green, positioned on the left side of the slide. It has a central stem with several large, rounded leaflets branching out.

Our Mission

To be a trusted partner,
empowering healthier lives through
care and compassion.

Our Vision

To inspire hope and be a national
leader for the advancement of
health and healing.

We Are Lee Health

Almost 14,000 employees – largest employer in Southwest Florida

4,000 active volunteers – currently sidelined with pandemic

Approximately 100 locations across region

Four adult acute care hospitals

- Gulf Coast Medical Center
- HealthPark Medical Center
- Cape Coral Hospital
- Lee Memorial Hospital

We Are Lee Health

Golisano Children's Hospital – only one between Tampa and Miami

- Golisano Children's Health Center – Naples
- Golisano Children's Health Center – Port Charlotte

The Rehabilitation Hospital – inside LMH

Trauma Center – at LMH and moving to GCMC

- One of 33 in state
- Serves five county region and over 1 million people
- Handles all accidents, crashes, falls – provides injury prevention outreach



We Are Lee Health

Regional Cancer Center at I75 and Colonial Blvd.

- Partnership with Genesis Healthcare and Florida Cancer Specialists
- One-stop shop for cancer care
- Multidisciplinary Breast Clinic
- Palliative Care Clinic



Vivida Health – Medicaid Provider Service Network

- Launched January 1, 2019
- Exclusively for Medicaid enrollees in Southwest Florida, across a seven-county region
 - Available to 200,000+ Medicaid enrollees in Charlotte, Collier, DeSoto, Glades, Hendry, Lee and Sarasota counties



We Are Lee Health - Wellness

- Community Education
 - National Speakers Series
 - Chronic disease and chronic pain management
 - Free health screenings
- Lee Physician Group designated Patient Centered Medical Homes
 - Case managers
 - Dietitians
- Healthy Life Centers
 - First-of-its-kind information and health education facilities
 - Fort Myers
 - Coconut Point
 - Cape Coral
 - Babcock Ranch
- Community Partnerships
 - Healthy Lee – 300 community partners with numerous initiatives
 - Community Health Needs Assessment – delivering services across the county
 - Healthy Minds



Wherever
you are...



...Lee Health
has you
covered.

We Are Lee Health – Continued Growth

- Lee Health Coconut Point – *Opened December 2018*

- 160,000- square feet
- Outpatient Diagnostics
- 24/7 Emergency Room
- Outpatient Surgery
- Observation Unit
- Healthy Life Center
- Primary Care & Specialty Care Physicians
- Outpatient Lab & Pharmacy



- Gulf Coast Medical Center - *Completion 2021*

- 268-bed expansion – 216 med/surg and 52 ICU
- Consolidation of services – Trauma, Oncology, etc.

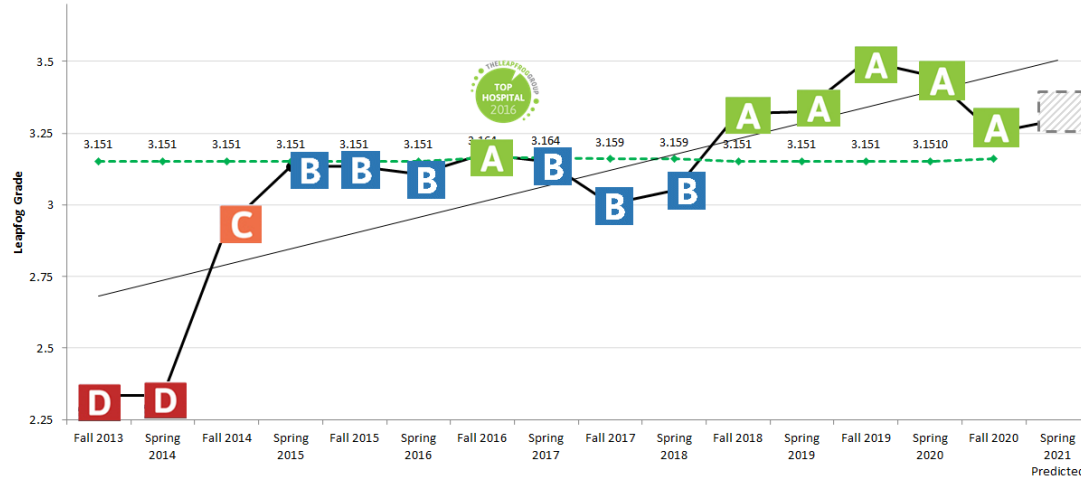
- Addition Plans in the Works

- Cape Coral Hospital expansion
- Re-envisioning Lee Memorial Hospital
- 21,000 square ft. primary care office in Estero
- 45 acre development at 41 and Coconut Rd.
- Workforce housing projects

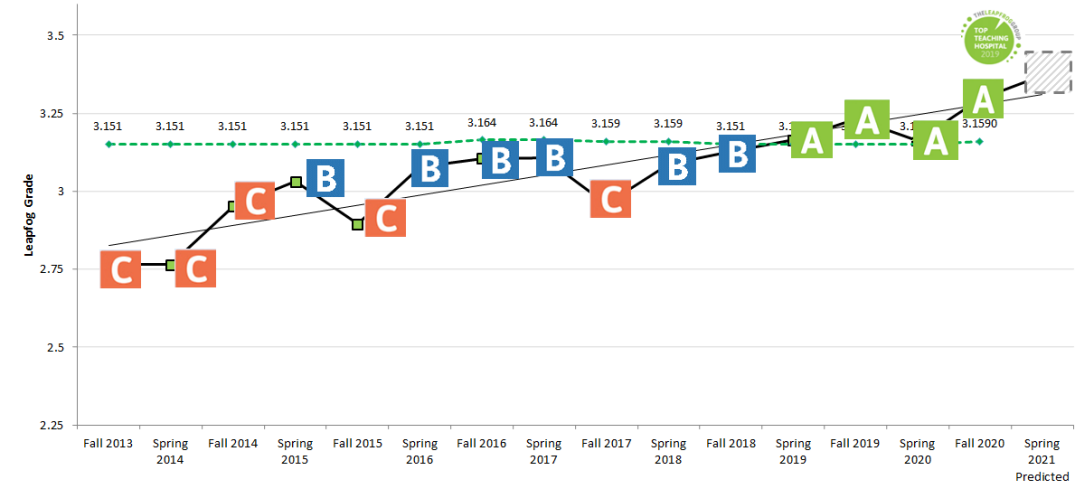


Safety First, And Always – Straight A's

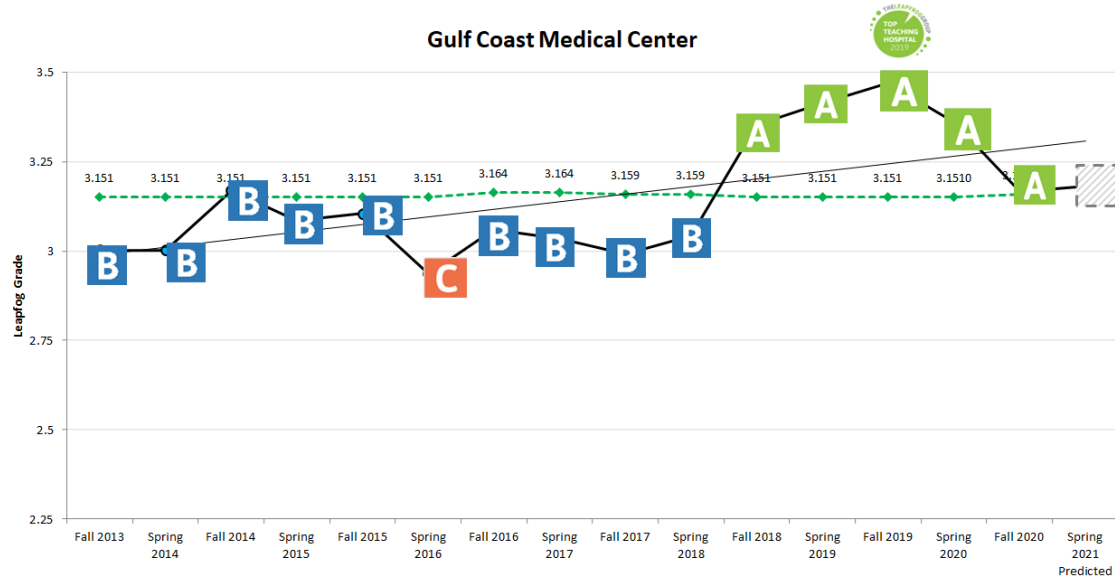
Cape Coral Hospital



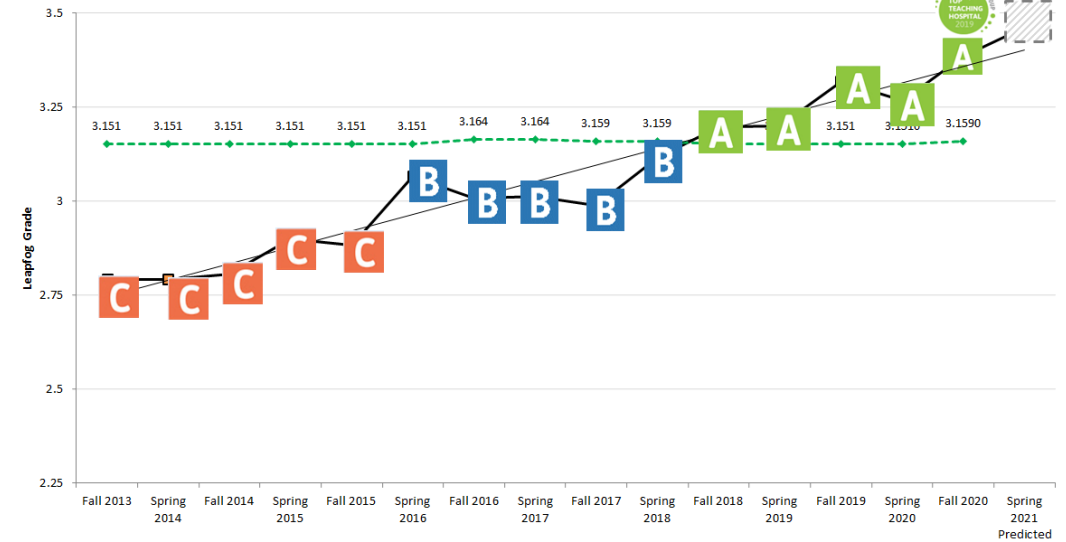
HealthPark Medical Center



Gulf Coast Medical Center



Lee Memorial Hospital





COVID – 19

A Once in a Lifetime Pandemic

COVID-19 Pandemic



National Archives

Combating influenza in Seattle in 1918, workers wearing masks on their faces in a Red Cross room

Respiratory Illness Related Pandemics

Pandemics occur when a virulent new strain of respiratory virus appear and there is little or no immunity in the population allowing the virus to spread quickly from person to person around the globe

Spanish Flu 1918 Spanish news sources where the only news sourced reporting the flu during the war as wartime censorship covered up the news for fear of despair resulting in the pandemic being named the Spanish Flu

Wuhan Flu 2019 was felt to have originated in Wuhan, China but was renamed COVID-19 for Coronavirus Disease 2019.

- A recent study of US blood donations from December 13, 2019 to January 17, 2020 from 9 states found evidence of the virus as early as December 2019

History Repeats Itself

Spanish Flu Pandemic 1918

Origin: first cases noted in Europe, America, Asia

Pathogen: H1N1

At risk: Young, Healthy

Death Toll: 20- 50 (+) million worldwide

Spread: WW1 troops moving around the world help spread the virus

Early Drug Therapies: People were prescribed high dose *Bayer aspirin*, a newly available drug at the time with toxic doses leading to aspirin poisoning in many patients.

COVID-19 Pandemic 2020

Origin: first cases noted in Wuhan, China

Pathogen: SARS CoV-2

At risk: Elder, Comorbidities

Death Toll: Over 1.8 million thus far

Spread: Ease of international travel spread the virus world wide

Early Drug Therapies: Initially, hydroxychloroquine. Doesn't work.

Several drugs have been approved by the FDA through emergency use authorization (EUA) bypassing traditional study and peer review.

Cold vs Influenza vs COVID



National Museum of Health / AP

Emergency hospital in Fort Riley, Kansas 1918

Antibiotics Do Not Treat Viruses

- Many of the symptoms of a cold, flu and COVID-19 are similar
- Diagnostic tests are rarely used to determine if you have a cold but your doctor may decide to do a swab to test for influenza or COVID-19
- Currently only influenza has medications with FDA approval for treatment
- Antibiotics **do not** treat any viral respiratory illness and should only be prescribed for suspected bacterial respiratory infections
- The risk of unnecessary antibiotics for a viral illness can include: serious diarrhea illness associated with antibiotics or development of bacterial resistance

Do I have a cold?



National Archives

Police ready for their shift wearing Red Cross Mask

Symptoms of a Cold and Treatment

Cause

- More than 200 viruses can cause the common cold but rhinovirus is the most common type

Who is mostly likely affected

- All ages but can be seen frequently in children

Onset

- Gradual

Symptoms (usually milder than influenza)

- Sneezing, stuffy nose, runny nose, sore throat, coughing, post nasal drip

Prevention/Treatment

- [Hand washing](#) is one of the best way to help prevent viral illness
- Antibiotics do not help treat a cold
- Medications for symptomatic relief such as medication for congestion

Influenza



US Navy

Influenza ward US Navel hospital on Mare Island, Calif. Dec. 10, 1918

Symptoms of Influenza and Treatment

Cause

- There are two main types of influenza (flu) virus. Type A and Type B

Who is most likely affected

- Children
- Over the age of 65

Onset

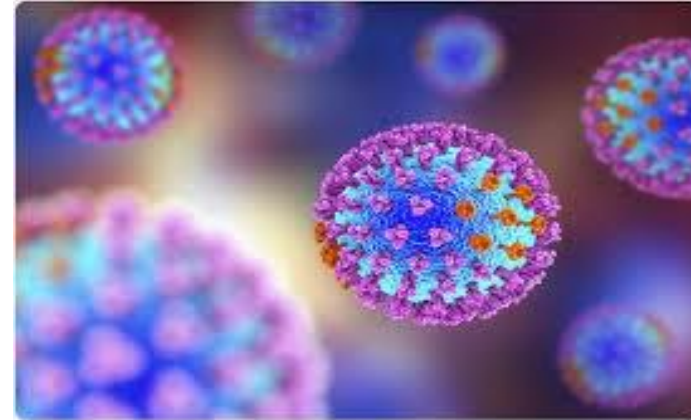
- Sudden

Symptoms

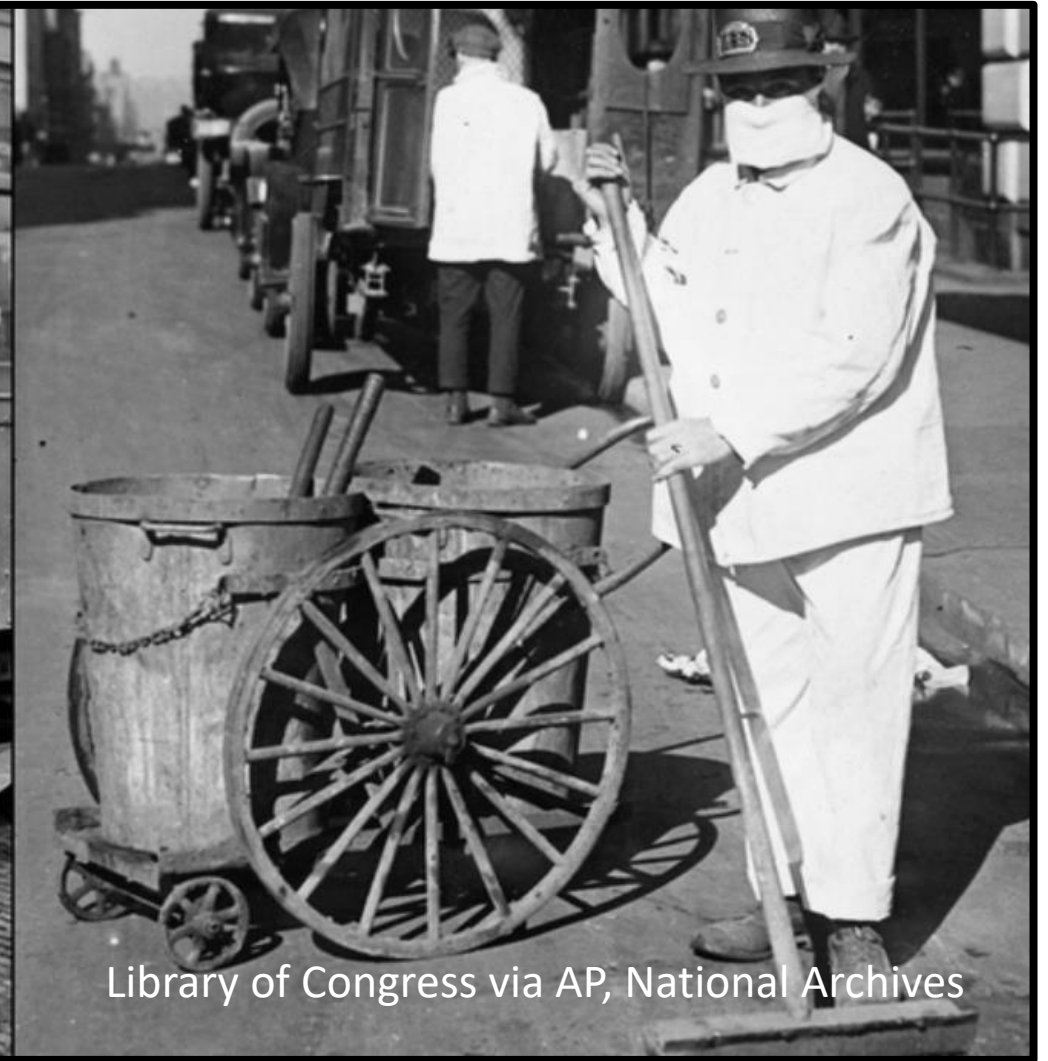
- Fever or chills, muscle or body aches, stuffy nose, runny nose, sore throat, coughing, headache, fatigue

Prevention/Treatment

- [Influenza vaccine](#) is the best way to prevent seasonal influenza
- Antiviral medication such as Tamiflu are sometimes prescribed
- [Hand washing](#) is one of the best ways to prevent viral illness



COVID-19



Library of Congress via AP, National Archives

Conductor checks for mask and street cleaners must mask

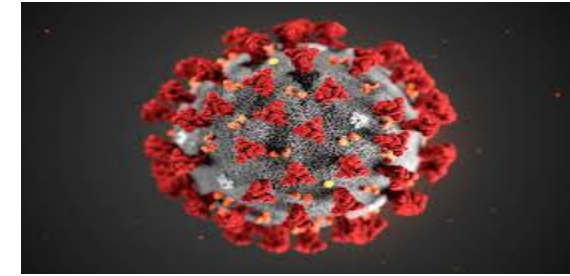
Symptoms of COVID-19

Cause

- SARS-CoV-2

Who is most likely affected

- Older adults
- People with certain medical conditions may be at higher risk for severe illness i.e. diabetes, heart disease, kidney disease



Onset

- Sudden

Symptoms

- Fever or chills, muscle or body aches, cough, shortness of breath, **new loss of taste or smell**, diarrhea

Prevention/Treatment

- COVID vaccine
- A specific viral medication has not been developed

Testing for COVID-19



American soldier has his throat sprayed to prevent Influenza

Types of COVID-19 test

2 types of test are available

Viral test

- Tells you if you have a current infection
- A swab is used to collect a specimen from your nose or nasopharynx and the specimen is tested in your doctor's office, sent to a laboratory, or home kits are becoming available

Antibody test

- Tells you if you have had an infection in the past
- A blood test is obtained and tested for antibodies to SARS-CoV-2
- This can be performed in a laboratory, home kits are becoming available

Who should get tested for COVID-19

- People who have symptoms of COVID-19.
- People who have had close contact (within 6 feet for a total of 15 minutes or more) with someone with confirmed COVID-19
- People who have taken part in activities that put them at higher risk for COVID-19 because they cannot socially distance as needed, such as travel, attending large social or mass gatherings, or being in crowded indoor settings
- People who have been asked or referred to get testing by their healthcare provider or state health department



Quarantine versus Isolation



Bettmann / Bettmann Archive

Fresh air Influenza Camp where found to be the best way to curb the pandemic. Patients required to stay there until cured.

COVID-19 Quarantine vs Isolation

- **Quarantine** keeps someone who has had close contact with someone who has had COVID-19 away from others

If you have had close contact with someone who has COVID-19

- Stay home for 14 days after your last contact.
- Check your temperature twice a day and watch for symptoms of COVID-19.
- If possible, stay away from people who are at higher-risk for getting very sick from COVID-19.



- **Isolation** keeps someone who is sick or tested positive for COVID-19 away from others, even in their own homes

If you are sick or think or know you have COVID-19

Stay home until after

- At least 10 days since symptoms first appeared *and*
- At least 24 hours with no fever without at fever reducing medicine *and*
- Symptoms have improved

If you tested positive for COVID-19 and do not have symptoms

- 10 days have passed



COVID-19 Medications



Nurses in a Boston hospital ready to take care of Influenza patients

COVID-19 Treatment Guidelines

Hydroxychloroquine **is not** recommended for treatment of COVID-19 in hospitalized or non-hospitalized patients

Remdesivir an antiviral medication has shown some in-vitro activity against SARS-CoV-2 and has emergency use authorization in hospitalized COVID-19 positive adults and children

- Recommendation is for hospitalized patients who have oxygen saturations $\leq 94\%$
- Not recommended for patients on ventilators
- It has not been shown to improve mortality or reduce progression to mechanical ventilation
- Demonstrated a benefit in shorter time to clinical improvement

Supportive care in the hospital

Clinicians close daily supervision over your case and providing recommendation for therapies as needed

Respiratory Therapy use of medications and therapy improve your breathing

Nursing

- Administer medications for symptoms and treatment of COVID
- Helping you into special positions throughout the day to improve lung function
- Up out of bed, walking in your room
- Moral support

Pharmacy collaboration and oversight of the combinations of therapies for treatment of COVID-19

Ancillary and Support Services all play a role in helping the journey of your return to health

Novel Therapies



Emergency hospital in Massachusetts in October 1918

Convalescent Plasma and Monoclonal Antibodies

Convalescent Plasma

- Collected from individuals who have had COVID-19 and have high titers of antibody
- Currently approved for hospitalized patients

Monoclonal Antibodies

- Emergency use Authorization approval for Bamlanivimab and REGN-CoV2
- Approved for non hospitalized patients who are at risk for progressing to hospitalization
- Proposed benefits: prevent disease progression and decrease viral load
- Possible risk: attenuation of bodies own immune response for future COVID-19 infection. Altering or decreasing immune response to COVID-19 vaccine

Vaccinations



National Archives

Open air barber shop in Berkley, California

mRNA Vaccines for COVID-19 Vaccination

- COVID-19 mRNA vaccines have been rigorously tested for safety before being authorized for use in the United States
- Vaccines using mRNA technology is new, but these type of vaccines have been studied for more than a decade
- mRNA vaccines **do not** contain a live virus and **do not carry a risk** of causing disease in the vaccinated person
- The mRNA from the vaccine never enters the nucleus of the cell and does not affect or interact with a person's DNA

<https://www.cdc.gov/vaccines/covid-19/hcp/mrna-vaccine-basics.html>

How do mRNA vaccines work?

- mRNA vaccines have strands of genetic material called mRNA inside a special coating which helps the mRNA enter the muscle cells
- mRNA is instructions for the cell on how to make a piece of the “spike protein” found in SARS-CoV-2
- Once the piece of the spike protein is made, the cell breaks down the mRNA strand and disposes of them using enzymes in the cell (The mRNA strand never enters the cell’s nucleus or affects genetic material)
- The protein (antigen) is then displayed on the cell surface which causes the immune system to begin producing antibodies and activating T-cells to fight off what it thinks is an infection



- These antibodies are specific to the SARS-CoV-2 virus, which means the immune system is ready to protect against future infection

Pfizer COVID-19 Vaccine

Administration

Age indications:

- 16 years and older

Administer:

- The vaccine will be administered in two separate administration approximately 21 days apart
- Intramuscular injection into the arm

Side effects

- The vaccine has similar side effects to influenza vaccination
- Injection site pain, fatigue, headache, muscle pain, chills, joint pain, fever, injection site swelling, injection site redness, nausea, malaise, and lymphadenopathy

Moderna COVID-19 Vaccine

Administration

Age indications:

- 18 years and older

Administer:

- The vaccine will be administered in two separate administration approximately 28 days apart
- Intramuscular injection into the arm

Side effects

- The vaccine has similar side effects to influenza vaccination
- Injection site pain, fatigue, headache, muscle pain, chills, joint pain, fever, injection site swelling, injection site redness, nausea, malaise, and lymphadenopathy

Protecting yourself in the community and work



Bettmann / Bettmann Archive

Typist wears her Influenza mask in 1918

Preventing Respiratory Illnesses

Wash your hands frequently either with soap and water for 20 seconds “Happy Birthday to You” or an alcohol based hand gel which is at least 70% alcohol

Avoid close contact with people who have colds or respiratory symptoms

Cover your mouth and nose when coughing or sneezing with a tissue and then wash your hands

Avoid touching your eyes, nose and mouth

Social distancing of 6 feet or more

Avoid gatherings in which social distancing cannot occur

Wear a mask when in social environments



We are all in this together



Bettmann / Bettmann Archive

Outdoor prayer at the Cathedral of Saint Mary of the Assumption

The Future Of Healthcare

What Does the Future Hold?

Lower hospital bed utilization but sicker patients in the hospital

Demographics will drive healthcare needs for next 20-30 years

Movement to outpatient services – labs, surgery, imaging, infusion, etc.

Value-based care vs. fee for service – Population Health

Remote monitoring, hospital at home, telemedicine

Entrance of large tech companies – Amazon, Google, etc.

Consolidation – larger systems, greater efficiencies

Continued governmental involvement – ACA, Medicare/Medicaid, etc.

Increased consumerism – on demand services, technology, price transparency, etc.

Personalized medicine – genomics, etc.

Questions?

Thank You