

Sally Goza, MD, FAAP AAP President

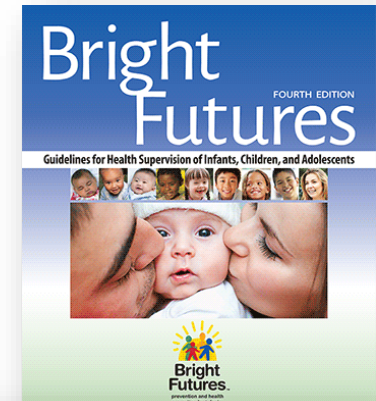
American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



AAP Guidance on Providing Pediatric Well-Care During COVID-19

- The AAP strongly supports the continued provision of health care for children during the COVID-19 pandemic
- Well-child care should be provided consistent with the *Bright Futures Guidelines for Health Supervision of Infants, Children and Adolescents (4th Edition)* and the corresponding *Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)*

The image displays a detailed periodicity schedule table. The table is organized into columns representing different age groups: Newborn, Infant, Toddler, Preschool, School Age, and Adolescent. Each column contains a grid of boxes, some of which are shaded in various colors (green, yellow, purple, blue) to indicate the frequency of recommended health care visits. The rows list various health care services such as 'Well-child visit', 'Immunization', 'Screening', and 'Counseling'. The table is titled '2014 Recommendations for Preventive Pediatric Health Care' and includes the logos of the American Academy of Pediatrics and Bright Futures.

Childhood Vaccination Should Occur in Primary Care Medical Home

Care that is:

- Accessible
- Family-centered
- High quality/cost effective
- Coordinated
- Compassionate
- Culturally effective



and for which the Primary Care Child Health Professional shares responsibility

Investment in our primary care infrastructure will be especially crucial as children return for catch-up immunizations, and the fall influenza vaccination season arrives, and a potential vaccine to prevent COVID-19 becomes available. Resources needed to help children and their families achieve their maximum potential.

Immunization Rates and Office Visits Have Fallen During COVID-19 Pandemic

- Since the onset of the pandemic, a significant drop in well-child visits has resulted in delays in:
 - Vaccinations
 - Appropriate screenings and referrals
 - Anticipatory guidance to assure optimal health
- Since mid-March, immunization rates among children have fallen 60-80 percent
- This drop in childhood immunizations was noted in the May 8 *Morbidity and Mortality Weekly Report* (MMWR)

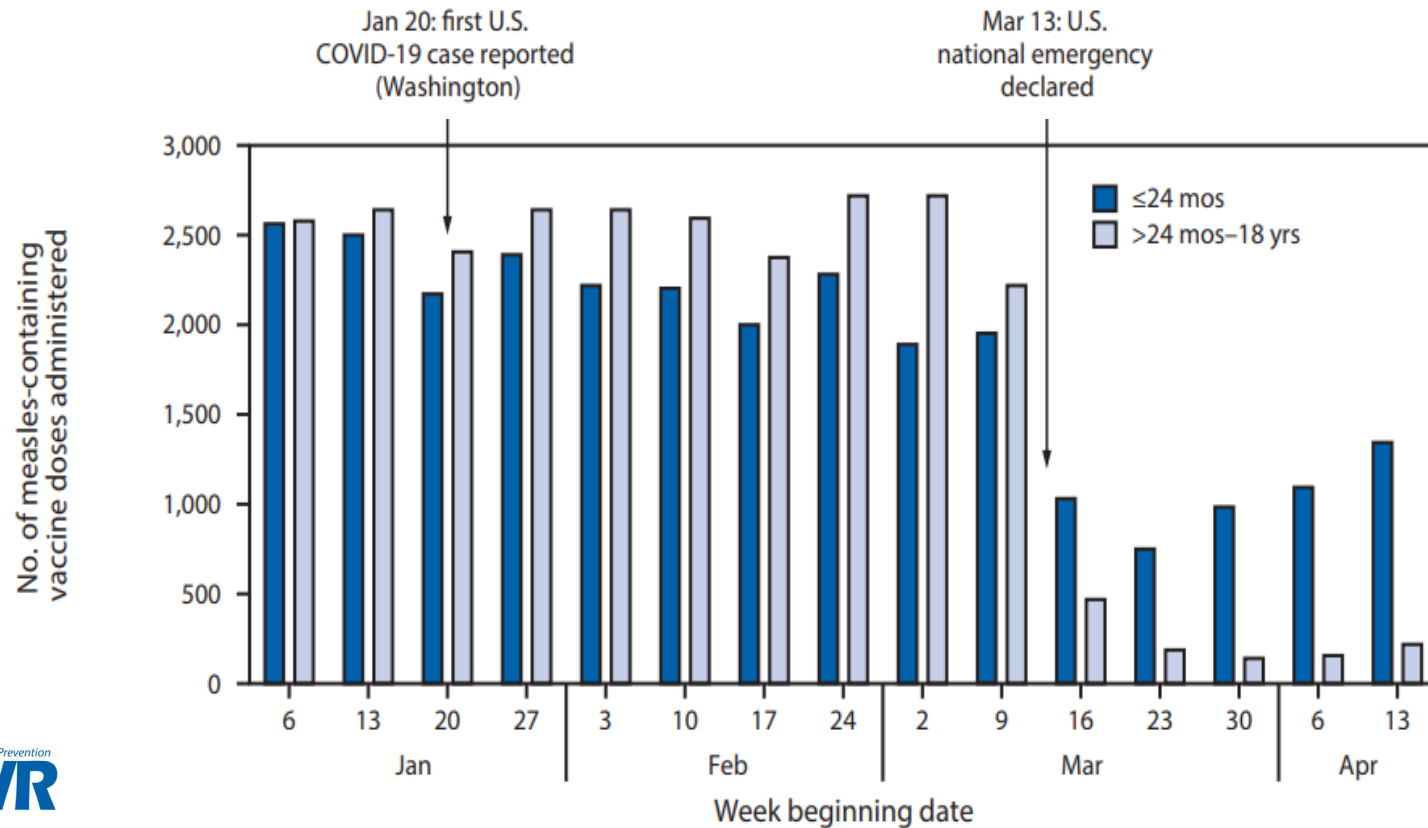
Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020

Jeanne M. Santoli, MD¹; Megan C. Lindley, MPH¹; Malini B. DeSilva, MD²; Elyse O. Kharbanda, MD²; Matthew F. Daley, MD³; Lisa Galloway¹; Julianne Gee, MPH⁴; Mick Glover⁵; Ben Herring⁶; Yoonjae Kang, MPH¹; Paul Lucas, MS¹; Cameron Noblit, MPH¹; Jeanne Tropper, MPH, MS, MBA¹; Tara Vogt, PhD¹; Eric Weintraub, MPH⁴

On March 13, 2020, the president of the United States declared a national emergency in response to the coronavirus disease 2019 (COVID-19) pandemic (1). With reports of laboratory-confirmed cases in all 50 states by that time (2), disruptions were anticipated in the U.S. health care system's ability to continue providing routine preventive and other nonemergency care. In addition, many states and localities

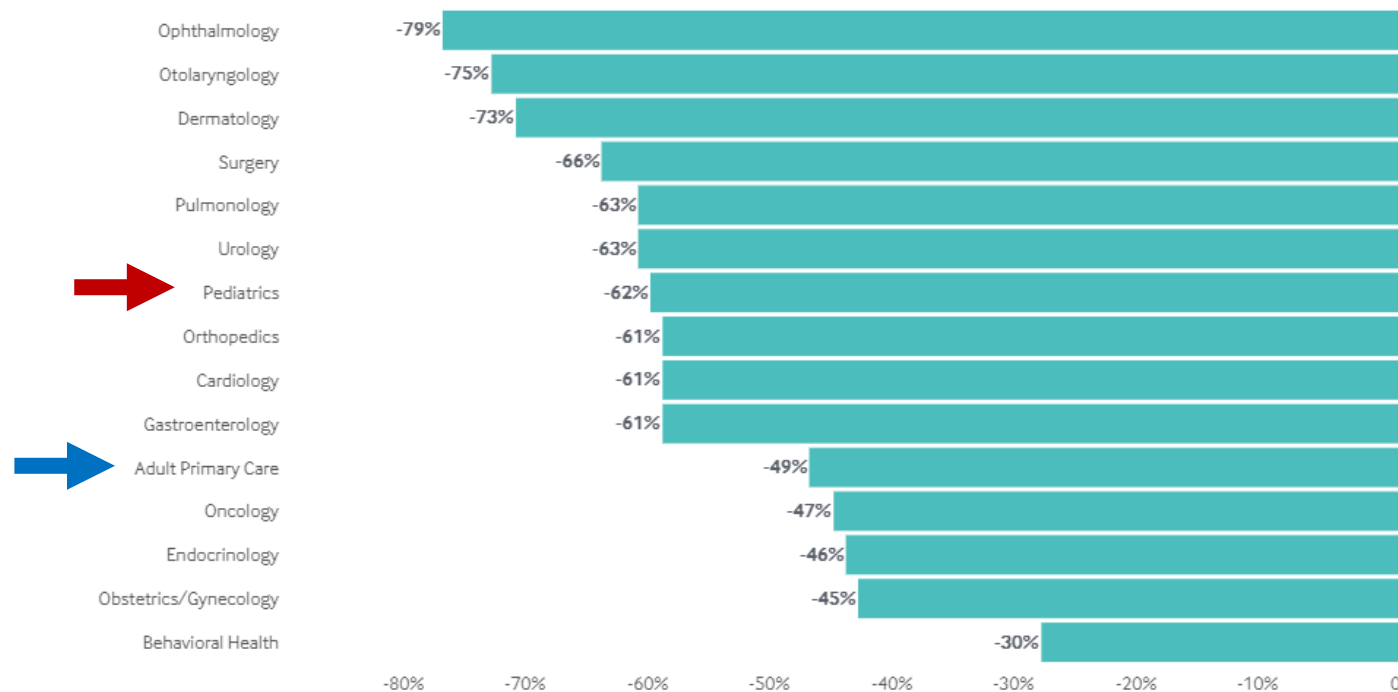
differences in cumulative weekly vaccine doses ordered between period 2 and period 1 were calculated for all noninfluenza vaccines[§] that the Advisory Committee on Immunization Practices (ACIP) recommends for children and, as an example, for measles-containing-vaccines.[¶] VSD is a collaborative project between CDC's Immunization Safety Office and eight U.S. health care organizations serving publicly and privately insured

Weekly Changes in Vaccine Safety Datalink (VSD) Doses Administered for Routine Pediatric Vaccines (January 6- April 19, 2020)



Declines in Outpatient Visits by Specialty

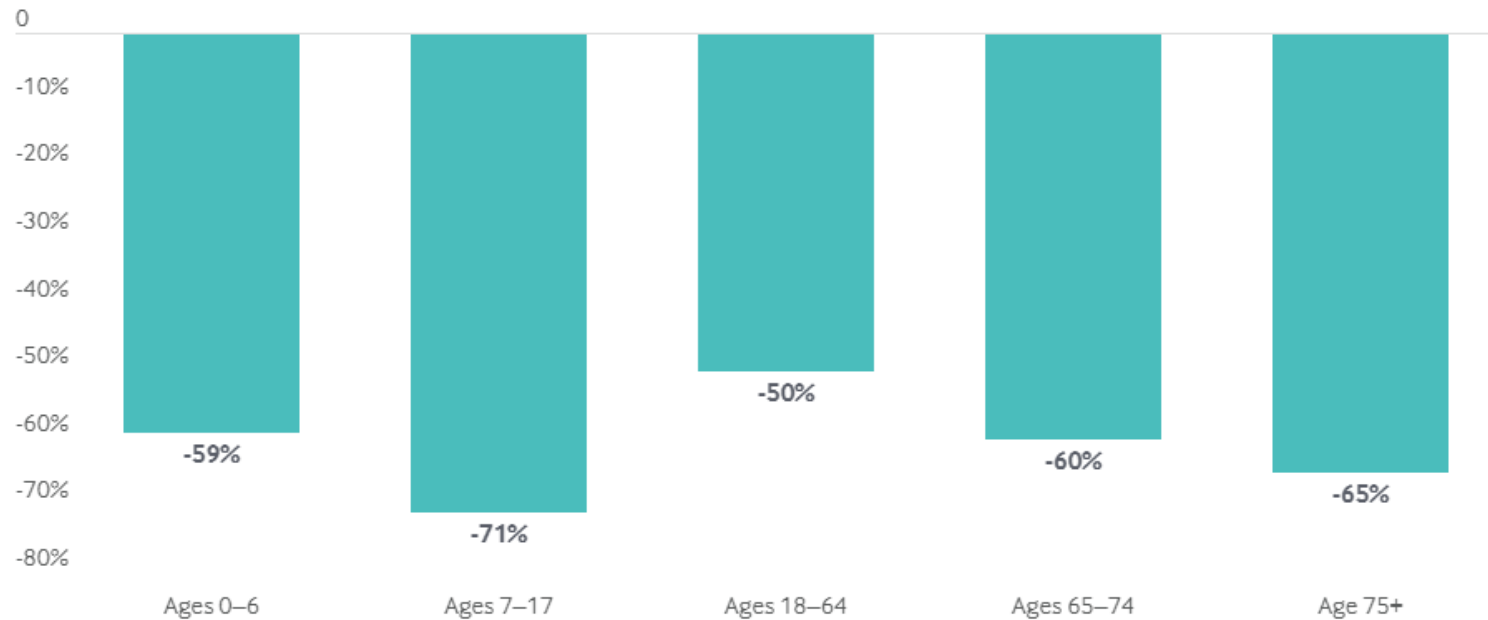
Percent change in visits from baseline to week of April 5



Commonwealth Fund: <https://www.commonwealthfund.org/publications/2020/apr/impact-covid-19-outpatient-visits>

Outpatient Visit Declines Largest Among School-Aged Children

Percent change in visits from baseline to week of April 5th



Commonwealth Fund: <https://www.commonwealthfund.org/publications/2020/apr/impact-covid-19-outpatient-visits>

AAP Virtual Media Tour: *Call Your Pediatrician*

- Vaccines are important
- Innovations for safe health visits
- Mental health needs of children and teens
- Must support pediatric practices to maintain access to care
- 100+ interviews in national and local media outlets across the country



<https://people.com/health/pediatricians-want-parents-to-keep-childrens-vaccination-appointments-amid-coronavirus/>

#CallYourPediatrician Campaign



- **Twitter**
- **Facebook**
- **Instagram**
- **Pinterest**
- **Linkedin**

Using humor and real-world conversations, AAP has launched the #CallYourPediatrician campaign, which aims to reach parents with timely reminders that going to the pediatrician, even during COVID-19, is important *and* safe.

#CallYourPediatician



We've launched a digital marketing campaign aimed at encouraging parents to call their pediatrician. We're doing this with relatable, even humorous, content that will get parents' attention and send the message that going to the pediatrician is not only safe, but important to do during the pandemic.

To-Do List: Relatable to-do list that reflects quarantine life for many parents. Fishing toys out of the toilet, vacuuming up crushed cheerios, setting up Zoom calls for preschoolers...and of course, calling the pediatrician.

-20 Minutes: Relatable images of children, well, being children, with a frame of "Let us take them off your hands for 20 minutes." As a way to normalize and even encourage as a safe and necessary trip out of the house to have another adult hear your toddler's knock knock joke for the 47th time.

-A GIF of a text exchange between two parents that includes parent to parent advice to see the pediatrician, in a relatable conversation thread.

We're also rolling out over the next couple of weeks some animated videos, including:

-A video or two showing baby animals getting check-ups at the zoo, with a note that your little ones need check-ups too!

#CallYourPediatrician Campaign Materials

The doctor is in!
Pediatricians are taking steps to make sure it's as safe as possible for office visits:

- Separate "Sick" and "Well" times and areas
- Phone check-in and in-car waiting rooms
- Video visits when possible

If you have any concerns about your child's health, please give your pediatrician a call.

American Academy of Pediatrics | healthychildren.org

How to prepare for a video visit with the pediatrician
Have your child with you!

Other things to have ready:

- Your child's weight & temperature
- A list of specialists your child sees
- Your pharmacy info
- Medicines your child takes

Don't forget to test your camera and microphone before the visit. Log in a few minutes early.

American Academy of Pediatrics | healthychildren.org

- Toolkit provides downloadable images and videos along with sample social media posts
- We encourage pediatricians to share these messages on social media and spread the word to parents in their practices

-- AAP urged HHS to provide immediate financial relief through no-strings federal grants to all pediatricians

-- We requested two months of average practice expenses to each active pediatrician in the U.S. using the National Provider Identifier registry and taxonomy for pediatricians and pediatric medical and surgical specialists

-- The need for pediatricians to receive direct funding is known at the highest levels of the White House

Strengthening Immunization Delivery for Children PREPARING FOR A COVID-19 VACCINE

Once a COVID-19 vaccine is available, ensuring that children and adolescents are quickly immunized against the disease will be a crucial component of a national strategy to keep Americans healthy, end social distancing, and strengthen America's economy. However, several obstacles threaten to impede our nation's ability to carry out this essential effort.

Largely driven by online misinformation, an increasing number of parents in recent years have become more hesitant to vaccinate their children according to expert recommendations. Restoring confidence in the safety and effectiveness of childhood vaccines will be crucial to ensuring uptake of a COVID-19 vaccine.

In addition, childhood vaccination rates have experienced sharp declines resulting from COVID-19-related stay-at-home orders. In the coming months, pediatricians will be called upon to respond to an influx of children returning to catch up on their routine vaccines. This fall, they will need to vaccinate children against influenza in what will be an especially critical flu season

and will need to prepare for the widespread delivery of a COVID-19 vaccine.

However, primary care pediatrician practices—the cornerstone of the child vaccine delivery system in the United States—have experienced severe economic stress as a result of the COVID-19 pandemic.

These practices must remain financially solvent to carry out the important social responsibility of child vaccination in tandem with performing the essential function of providing primary health care to children.

A national policy strategy is needed to keep childhood vaccination strong and end the COVID-19 epidemic.



Increase Vaccine Rates and Confidence

Encourage the safe return of children to their medical homes. Pediatricians have responded to COVID-19 by redesigning their practices to make them especially safe places for children and families. Communications efforts are urgently needed to ensure that parents know that vaccination and well-child care is safe and essential.

Pass the VACCINES Act. The VACCINES Act is a bipartisan bill that would help provide resources to the Centers for Disease Control and Prevention (CDC) to appropriately monitor vaccine hesitancy and promote vaccine confidence through public messaging campaigns.

Bolster the Vaccine Delivery System

Pediatricians are the backbone of the immunization delivery infrastructure for children. Yet, in many cases pediatric practices must shoulder the expense of the financial burden of purchasing, storing, and delivering vaccines. Payment to pediatricians for administering vaccines—often through the Medicaid program—is often inadequate.

Ease the financial burdens of vaccine administration on pediatric practices. For the duration of the public health emergency, Medicaid vaccine administration payments should be significantly increased. Congress should fully fund states to significantly enhance Medicaid vaccine payment rates for two years. Longstanding undervaluation of certain vaccine payment codes must also be addressed.

Strengthen the Vaccines for Children (VFC) program. The VFC is an important program that finances the purchase of vaccines for certain eligible children. Yet, administrative and payment hurdles too often force providers to end participation in the program. Incentive payments to VFC are needed to maintain practice participation and administrative barriers must be reduced.

Policies to Preserve the Vaccine Delivery System for Children

The vaccine delivery system relies on pediatric practices to vaccinate the nation's children and adolescents and prevent future outbreaks.

However, national and local data are beginning to emerge that paint a disturbing picture of the impact of the COVID-19 pandemic on child and adolescent vaccination rates due to fewer parents taking their children to see their doctor. In response to the COVID-19 pandemic, practices have reimagined the way they deliver primary care to offer a safe environment for families to receive needed care. Pediatricians are offering telehealth care, organizing office visits into well-care and sick-care blocks, and instituting infection control measures ranging from removing seats and toys in the waiting room to conducting drive-through testing and vaccinations. Pediatric practices are open, committed, and prepared to continue seeing patients during this public health emergency.

In order to keep this vaccine delivery system strong, however, we need to address the severe financial challenges practices are facing right now. Practices are confronting drastic



choices in light of the COVID-19 pandemic. Practice managers around the country report that their caseloads are as low as 20-30 percent of their practices' typical caseloads due to social distancing, shelter-in-place, and families delaying or forgoing care. At the same time, pediatricians are facing higher costs including personal protective equipment and workforce training as they transform their practice to meet the needs of their patients and families. The dramatic drop in revenue compounded with higher costs is forcing practices to reconfigure facilities and layoffs, cancel vaccine orders, and in many cases, consider permanent closure. Urgent financial assistance will be needed to preserve the lymphin in the childhood vaccine delivery system.

Address Financial Strain and Deficiencies in the Vaccine Financing System

Enhanced Medicaid Payment for Immunization Administration

To preserve the pediatric immunization infrastructure during the COVID-19 crisis, for the duration of the public health emergency, Medicaid vaccine administration payments should be significantly increased. Congress should fully fund states to provide Medicaid vaccine payment rates equivalent to 200 percent of Medicaid rates for two years.

Appropriately Valued Vaccine Codes

In order to support physicians who administer vaccines, the Centers for Medicare and Medicaid Services (CMS) should maintain calendar year (CY) 2019 national payment amounts for immunization administration services in CY 2020 for all populations.

Prospective Medicaid Vaccine Payments

State Medicaid programs should work with CMS, the Centers for Disease Control and Prevention (CDC), and the VFC program to provide prospective payment to physicians for vaccine and vaccine administration to preserve the pediatric immunization infrastructure during the COVID-19 crisis.



Increase Delivery of Seasonal Flu Vaccine to Providers

Receipt of public and private seasonal influenza is needed for 2020-21 influenza season in which all CDC awards need to keep the differential between delivery of VFC vaccine as compared to private vaccine to two weeks or less. Private practices that VFC providers can provide the influenza vaccine to their patients at the earliest opportunity available to ensure that COVID-19 will persist throughout the flu season.

IC Payment for Multi-Component Vaccines

Updating providers are at present unable to receive for code 9046, which appropriately reflects the work associated with the provision of multi-component vaccines.

Regulatory Burden and Collaboration with Quality Initiatives

VFC programs to work with VFC providers to avoid or correct suspension of VFC participation for minor infractions such as temperature excursions. VFC programs should work collaboratively with providers to minimize burdens that may impede VFC participation. Partner with professional organizations to promote efforts related to catch-up, storage and handling, etc.

MORE INFORMATION
act.kidstat.aap.org

Strengthening Immunization Delivery for Children

PREPARING FOR A COVID-19 VACCINE



Increase Vaccine Rates and Confidence

- Encourage the safe return of children to their medical homes
- Pass the VACCINES Act to address vaccine hesitancy

Bolster the Vaccine Delivery System

- Ease the financial burdens of vaccine administration on pediatric practices
- Strengthen the Vaccines for Children (VFC) program

Policies to Preserve the Vaccine Delivery System for Children

Address Financial Strain and Deficiencies in the Vaccine Financing System

- *Two-year increase in Medicaid payment for immunization administration*
- *Fix inappropriately valued payment for vaccine codes*
- *Work with state Medicaid programs to provide prospective vaccine payments*

Policies to Preserve the Vaccine Delivery System for Children

Critical Policy Changes Needed for the Vaccines for Children Program (VFC)

- *Offer financial bonus payments as incentives for VFC participation*
- *Increase regional maximum VFC vaccine administration fees*
- *Pay providers for vaccinating uninsured children in VFC program*
- *Allow borrowing between public and private vaccine stock*
- *Prioritize delivery of seasonal flu vaccine to VFC providers*
- *Allow VFC payment for multi-component vaccines*



Thank You

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®





RUTGERS

Robert Wood Johnson
Medical School

Vaccine Myths

Patricia N. Whitley-Williams, MD
Professor of Pediatrics
Rutgers Robert Wood Johnson Medical School
New Brunswick, NJ
June 9, 2020

VACCINE MYTHS

- Most vaccine preventable diseases are not serious
- No one gets these disease any more
- If so many other people are vaccinated, my child doesn't need vaccines
- It's better to get one vaccine at a time
- There will be fewer side effects if I delay my child's vaccinations until he/she is older

VACCINE MYTHS

- Vaccines are not tested adequately for safety
- MMR vaccine causes autism and sudden infant death
- Thimerosal in vaccines causes autism
- There are many harmful ingredients in vaccines.
- We should not put foreign substances like vaccines into our bodies.

VACCINE MYTHS

- Natural disease is better.
- My child will get the disease from the vaccine.
- I'm breastfeeding so my baby is protected from infections.
- Homeopathic medicines like nosodes are a good alternative to vaccines.
- The vaccine schedule is too aggressive and should be spaced out.
- There are too many (antigens) vaccines which overwhelm the immune system.
- I got all my vaccines as a child. I do not need any more.

Tips for Communicating with Parents about Vaccines

Presumptive recommendations

- Start with a presumptive statement about the vaccines for which a child is due
- Establish that vaccination is the normative choice; keep the conversation brief

Motivational interviewing approach

- For hesitant parents, transition to a supportive discussion with open-ended questions to elicit parental concerns
- Ask permission to share information
- Keep it conversational—avoid launching into a lecture full of facts about vaccines

Beware when debunking myths

- Too much time talking about a vaccine myth can actually strengthen the myth in the listener's mind
- Identify the myth as a myth and state that it is false
- Focus on the facts
- State the core facts simply. If the truth seems more complicated the myth, it remains easier to accept the simple information in the myth

Tips for Communicating with Parents about Vaccines (cont'd)

Disconfirmation bias

- When presented with evidence for and against an existing belief, people more easily accept evidence that supports the existing belief and are critical of evidence that refutes the belief
- Rather than refuting incorrect elements of existing beliefs, try to provide new information to replace those elements
- Pivot the conversation to focus on the diseases that vaccines prevent

Story-telling

- Personal anecdotes and stories are powerful communication tools
- Talk about the decision to vaccinate your own children
- Try to avoid scare tactics

Approach to dispelling vaccine myths

- Build trust
- Use science and anecdotes
- Parents continue to list their child's healthcare professional as the number-one most trusted source of vaccine information
- Participatory vs presumptive approach
 - "What do you want to do about shots?"
 - "Your child needs three shots today"
- Realize that success comes in many forms
- Visit CDC, AAP, NFID, PIDS, Immunize.org websites – see videos

NFID Resources

www.nfid.org

VACCINES ARE SAFE:

- 5 phases of research and development** that can take **up to 15 years** are completed before a vaccine can be approved by the US Food & Drug Administration for public use¹
- 4 separate surveillance systems** are used to oversee and monitor vaccine efficacy and safety in the US²
- 3 phases of clinical trials involving THOUSANDS of volunteers** are required to ensure the safety of vaccines prior to approval for public use in the US³
- BILLIONS of vaccine doses have been safely administered in the US** for more than **50 years** and serious adverse events are rare⁴

Recommended childhood immunizations in the US protect against **16** dangerous vaccine-preventable diseases⁵

Source: 1. The Center for Disease Control & Prevention, Center for Drug Evaluation & Research; 2. Centers for Disease Control and Prevention; 3. American Academy of Pediatrics; 4. Centers for Disease Control and Prevention; 5. Centers for Disease Control and Prevention



#ShotOfScience

WHAT DO THEY ALL HAVE IN COMMON?

Hib, Age 12
 DTP, Age 21
 Polio, Age 41
 M, Age 45
 DTP, Age 55
 Shingles, Age 60

They are all at increased risk for an infection called **PNEUMOCOCCAL DISEASE**

Source: National Foundation for Infectious Diseases

COVID-19 MYTH:

"Drinking alcohol can prevent COVID-19"

FACT: Drinking alcohol will not protect you against COVID-19, and frequent or excessive drinking can be dangerous. Spraying alcohol or chlorine on your body will not kill viruses that have already entered your body, and can be harmful to your eyes and mouth. Alcohol and chlorine can be used to disinfect surfaces, not people.

Learn more at: www.nfid.org/coronavirus

Myths and Facts About Influenza

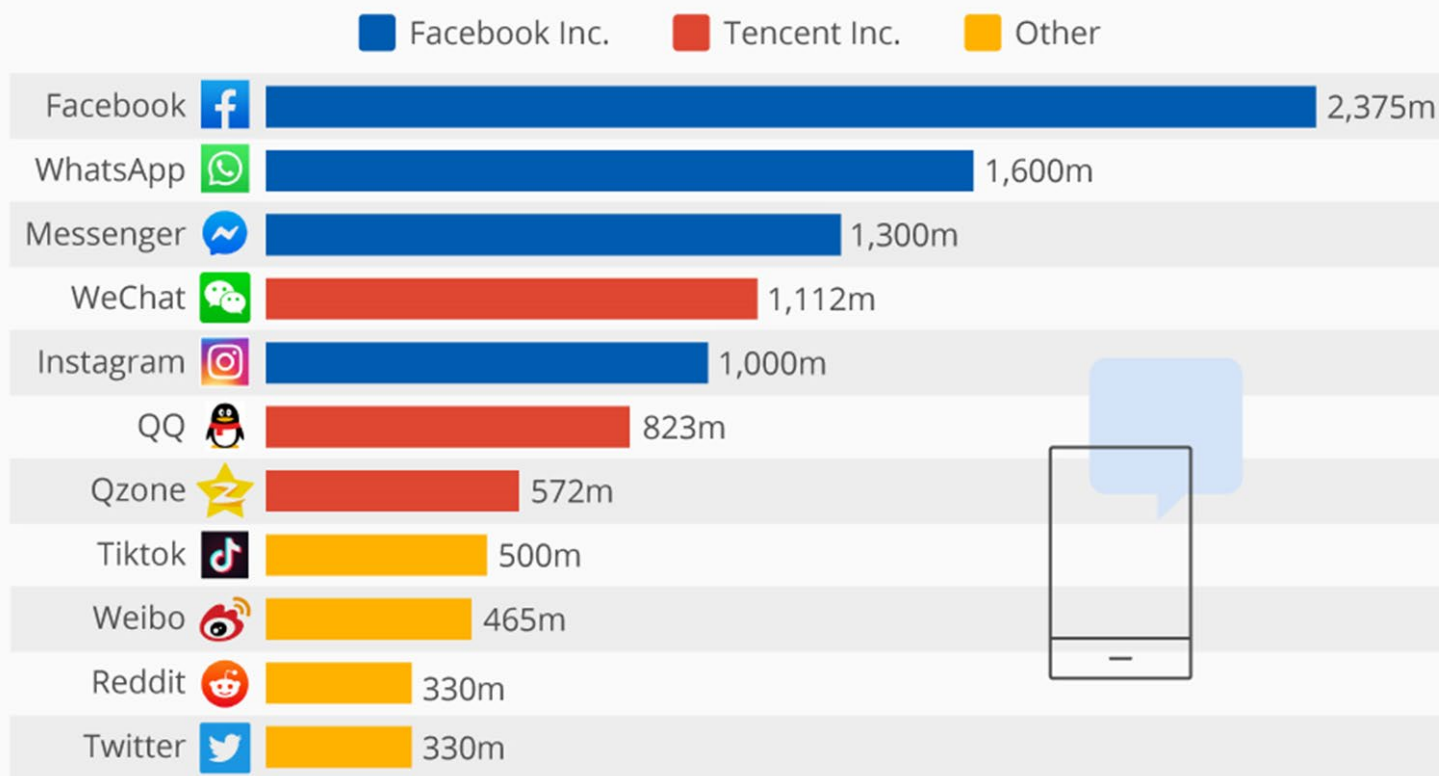


Myth: Vaccines can be dangerous and may have adverse health effects.

Fact: Almost all individuals who get an influenza (flu) vaccine do not experience serious problems. Some may experience a sore arm at the injection site. Those who receive a flu vaccine may experience fever, muscle pain, and feelings of discomfort or weakness. These side effects typically last 1-2 days after vaccination and are much less severe than actual flu illness. The risk of a flu vaccine causing serious harm or death is extremely small.

Facebook Inc. Dominates the Social Media Landscape

Monthly active users of selected social networks and messaging services worldwide*

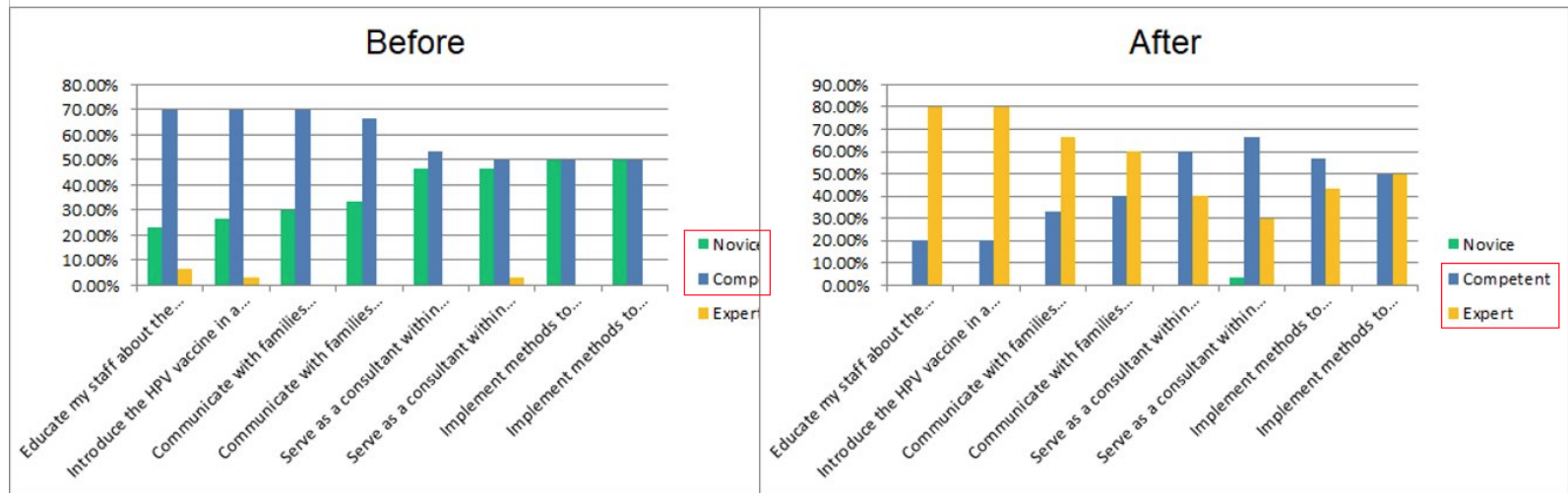


Strategies to address communication challenges and dispel myths

- Patient focused intervention using **texting** to answer questions and to dispel myths - Phillips AL et al (2014) Using text messages to improve patient-doctor communication among racial and ethnic minority adults: An innovative solution to increase influenza vaccinations, Preventive Medicine 69:117
- **Text message** campaign to improve and increase the doctor-patient communication
- Use of **mobile technology and health information technology** to improve communication – Stockwell MS, Alexander GF(2013) Utilizing health information technology to improve vaccine communication and coverage, Human Vaccines & Immunotherapeutics, 9:8, 1802-1811, DOI: [10.4161/hv.25031](https://doi.org/10.4161/hv.25031)
- More research is needed to identify communication strategies and test prototypes
- Implement **unconscious bias** training for healthcare professionals
- Engage the **community as a stakeholder** in addressing communication challenges; use of health talkers or community health workers

NJ AAP Pre and Post Survey

- Providers rated their confidence in abilities to educate about, communicate about, and implement strategies to improve vaccination rates:



MENT AGENCY
MEMBER

VITAMIN A-1 (100,000IU)
IPV
PCV3

VACCINATION

Antigen	Batch No	Date Given (DD-MM-YY)
BCG		11-01-19
Hep B-0		11-12-18
OPV-0		11-12-18
OPV-1		11-01-19
PCV-1		11-01-19
Penta-1		11-01-19
Rota-1		
OPV-2		07-02-19
PCV-2		07-02-19
Penta-2		07-02-19
Rota-2		
OPV-3		07-03-19
PCV-3		07-03-19
Penta-3		07-03-19
IPV		07-03-19
Measles 1		
Yellow Fever		
Meningitis		
Measles - 2		
Vitamin A-1		03-06-19
Vitamin A-2		

CHILD WEIGHT HISTORY & MONITORING

Graph the child's weight. When they visit, mark the weight in kilograms on the chart below, and connect to previous points to see trend over time.

Weight (kg)

18
16
14
12
10
8
6
4
2

Birth Months 1 year 2 years 3 years 4 years 5 years

2 4 6 8 10 2 4 6 8 10 2 4 6 8 10 2 4 6 8 10

BEAR AT RISK
HEALTHY
WELL NUTRITION
VERY UNDERNOURISHED

Falls Sits Stands Walks Runs Words

1. Watch the direction of the line to track child's health

GOOD: Child growing well

DANGER: Not gaining weight, find out why

VERY DANGEROUS: May be sick, needs extra care

2. Complete breast feeding keys

E: Exclusive Breast Feeding P: Partial Breast feeding
BW: Breast Feeding with Water NO: No Breast feeding

3. Write issues on chart

- Child illness (e.g. Diarrhoea, Measles)
- Any admissions to hospital
- Changes in feeding (e.g. introduction of solid food, stopping of breast feeding, extra meals)
- Mother of child having another child
- Medicines given

LOCAL PERSON FULL NAME:

UNICEF project in Kebbi State, Nigeria



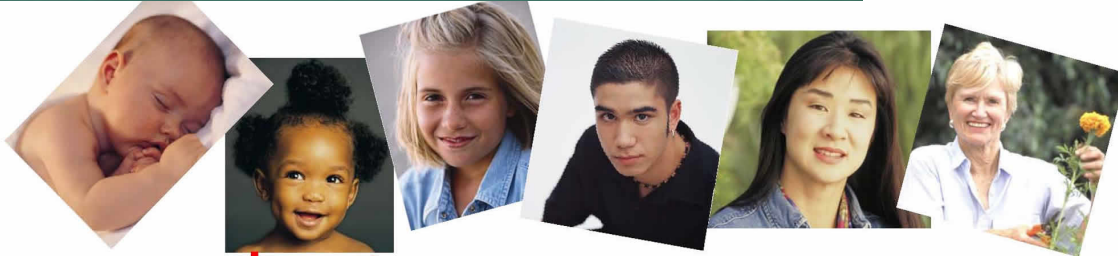
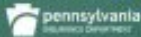
Don't Wait. Vaccinate.

Protect your children and keep them safe from life-threatening childhood diseases.

It's back-to-school time!



For more information about required vaccines for Pennsylvania students, visit www.dontwaitvaccinate.pa.gov.

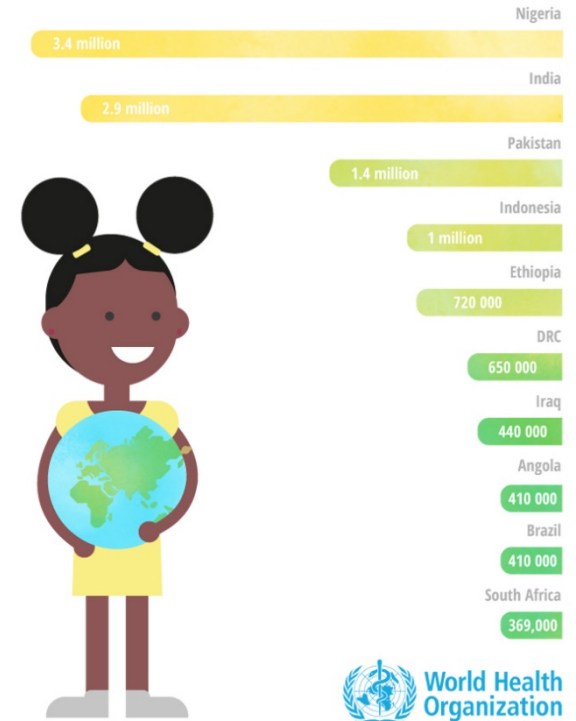


Immunizations are for everyone!

#VACCINESWORK TO LEAVE NO ONE BEHIND

About **116.5 million** children worldwide receive basic vaccines every year.

But **19.5 million** children still miss out. About **60%** of these children live in **10** countries:





BOSTON MEDICAL CENTER

Pediatric Mobile Unit

Mona Doss, D.O.

Boston Medical Center Pediatrics

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National Concern for Possible Infectious Outbreaks



Fewer childhood vaccines have been given during the COVID-19 pandemic*

To avoid outbreaks of vaccine-preventable diseases and keep children protected, **vaccinations and well-child visits are essential**

*Compared with January-April, 2019

CDC.GOV

bit.ly/MMWR5820

MMWR

Morbidity and Mortality Weekly Report

Childhood vaccine rates for preventable diseases has significantly fallen during the COVID-19 pandemic, raising the possibility of an additional health crisis

Timeline

- On March 13, 2020, the president of the United States declared a national emergency in response to the coronavirus 2019 pandemic
- With increasing number of cases across the USA, the ability to give routine preventative care was disrupted
- Most states issued “stay-at-home” orders to reduce COVID-19 spread
- On March 24, CDC posted guidance emphasizing the importance of routine well child care and immunization, especially for those ≤ 24 months

Santoli J et al. **Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Pediatric Ordering and Administration** – United States. May 15, 2020 *MMWR Early Release*.

The CDC released data early in May that indicate “vaccine rates had been declining gradually during the first two months of 2020 compared to the same period in 2019,” and “they plummeted the week after President Trump declared a national emergency on March 13.”

****children who are not vaccinated will be more susceptible to diseases, like measles, as social distancing requirements begin to relax.**

nths of 2020 compared to the same period in 2019,” and “they plummeted the week after President Trump declared a national

American Academy of Pediatrics

- Pediatricians should continue to provide well-child visits and immunizations for newborns and young children, but delay such visits for older adolescents.

- *AAP News 5/8/20*

- In-person visits should continue when possible and are necessary for vital services like comprehensive physical exams; laboratory testing; hearing, vision and oral health screenings; fluoride varnish and **immunizations**.

- Pediatricians can take precautions like scheduling well and sick visits at different times of the day, physically separating patients in different locations and rigorously sanitizing their offices. They should make families aware of these steps so they feel comfortable

Data Sources Assessing Vaccination

- Vaccines for Children Program (VFC) - provider order data from CDC's Vaccine Tracking System
- Vaccine Safety Datalink (VSD) - vaccine administration data

Santoli J et al. **Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Pediatric Ordering and Administration** – United States. May 15, 2020 *MMWR Early Release*.

Vaccine For Children Program (VFC)

- National program providing federally purchased vaccines to ~50% of U.S. children aged 0–18 years
- Examined VFC-funded vaccines ordered by providers at weekly intervals during two periods
 - **January 7, 2019–April 21, 2019**
 - **January 6, 2020–April 19, 2020**

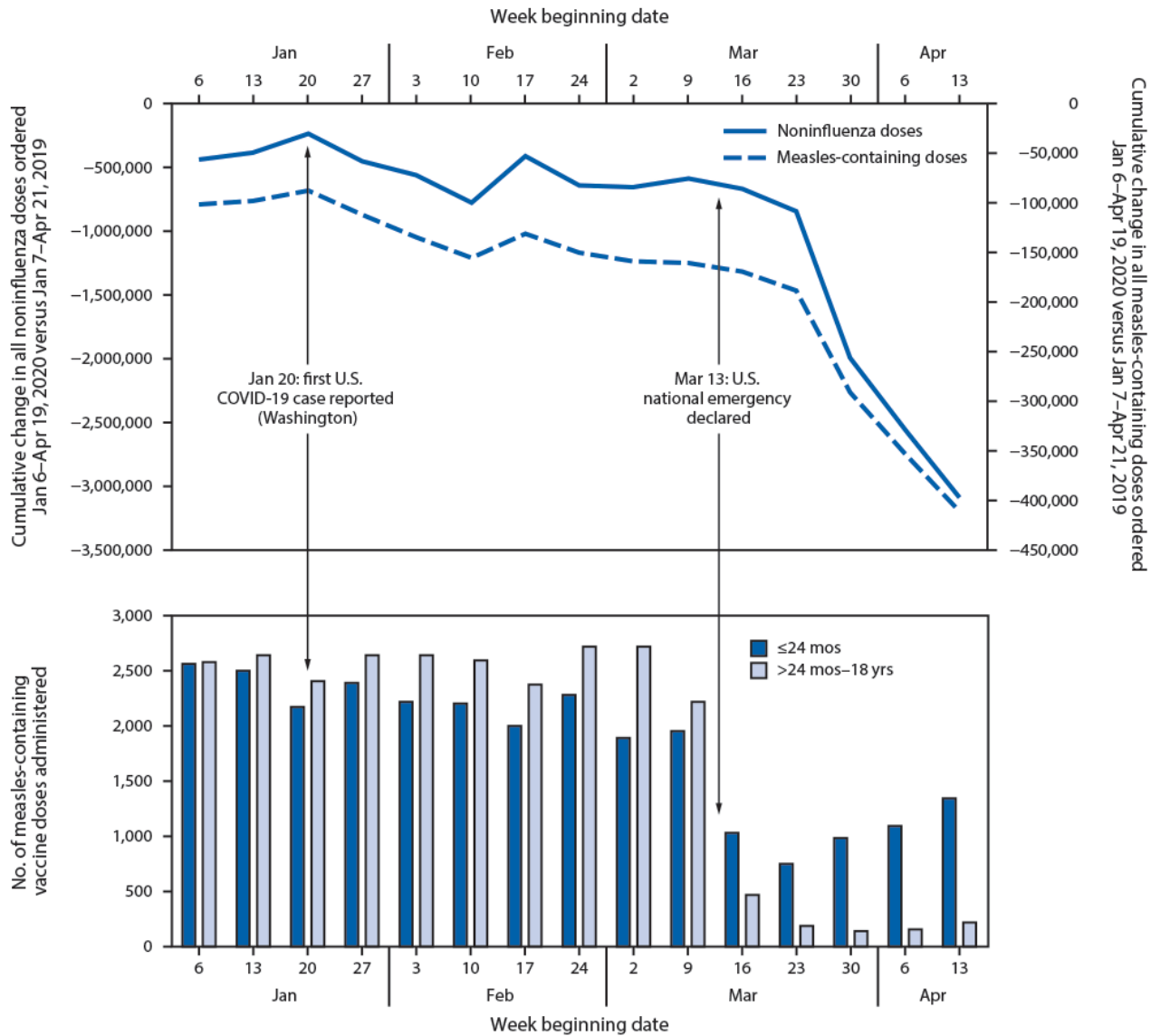
Santoli J et al. **Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Pediatric Ordering and Administration** – United States. May 15, 2020 *MMWR Early Release*.

Vaccine Safety Datalink (VSD)

- Collaborative project between CDC's Immunization Safety Office and 8 U.S. health care organizations
- Measles-containing vaccine doses administered each week at VSD sites were compared between two age groups:
 - Children aged ≤ 24 months
 - Children aged > 24 months - 18 years

Santoli J et al. **Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Pediatric Ordering and Administration** – United States. May 15, 2020 *MMWR Early Release*.

- **Decline** in measles-containing vaccine administrations beginning the week of March 16, 2020 which was **LESS** prominent among children





CENTER
**BOSTON
MEDICAL**

Our Hospital Clinic

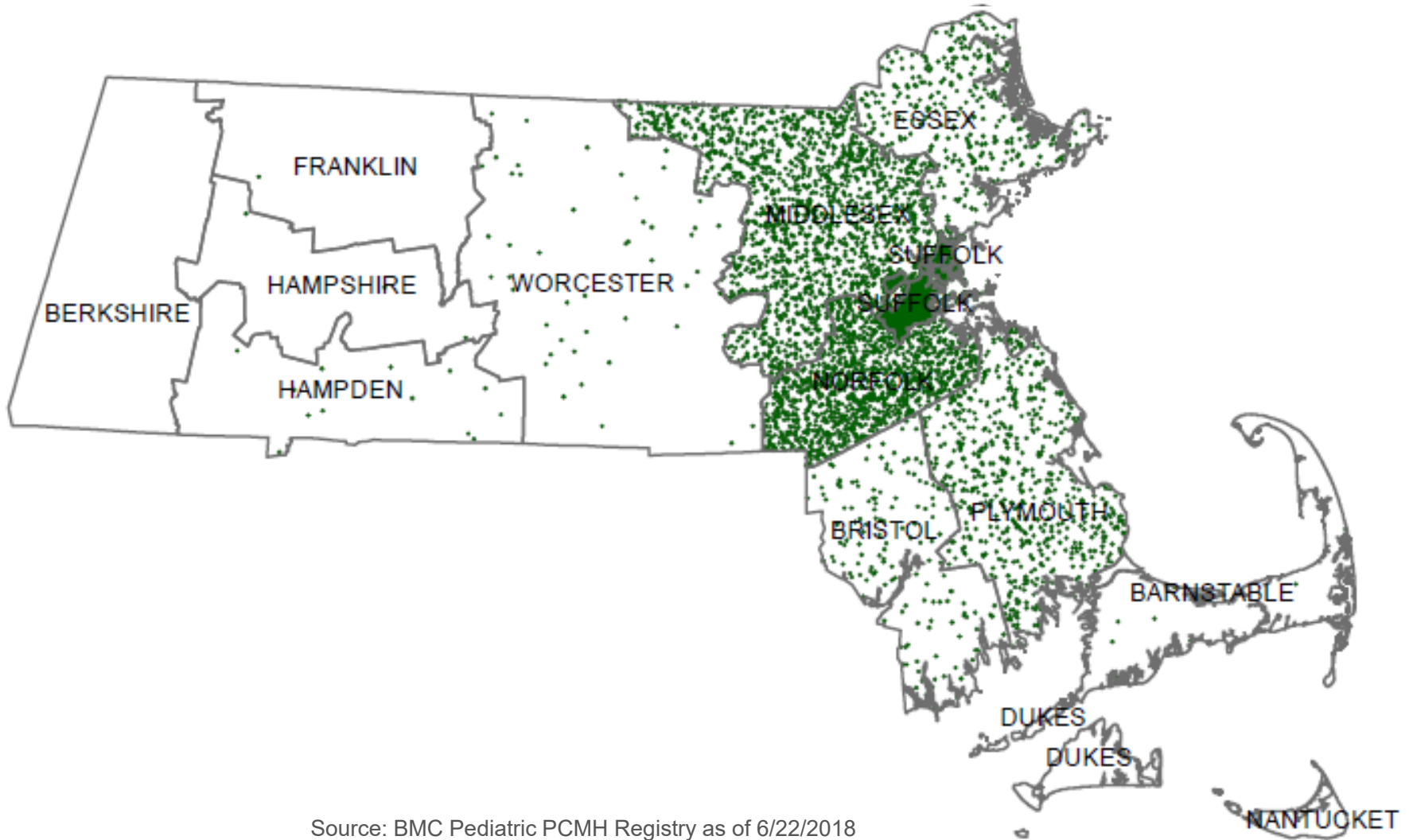
Boston Medical Center

- BMC is the largest safety net hospital in New England
- Ambulatory pediatric primary care clinic serves 14,000 children
- 85-90% on Medicaid
- Significant proportion of non-English speaking families
 - Spanish, Haitian Creole, Cape Verdean Creole

Related to COVID:

- Disproportionate number of Boston's adult COVID-19 inpatient burden
- Pediatric inpatient and PICU units closed to care for adult patients only
- Pediatric inpatients diverted elsewhere for hospitalization
- Fear in community and among staff

Total Pediatric Primary Care Population seen in the Last 18 Months



Source: BMC Pediatric PCMH Registry as of 6/22/2018

N- 12,194

COVID-19 Cases in Massachusetts since March 22

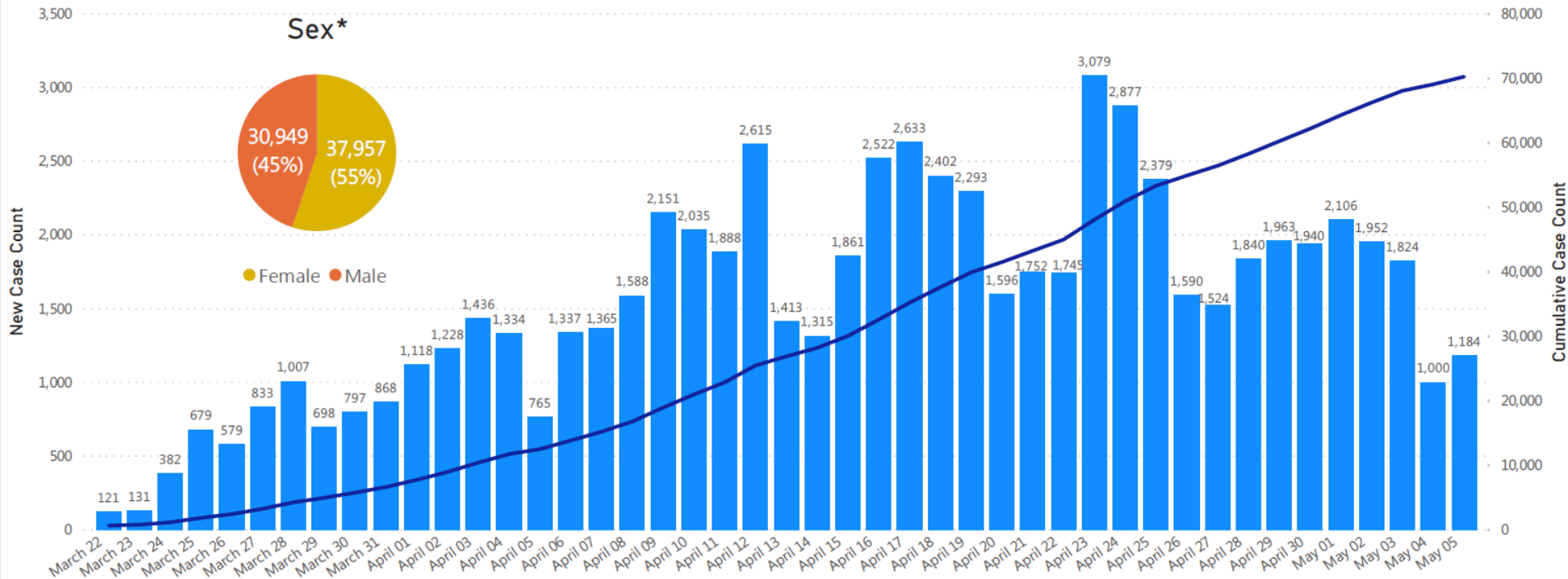
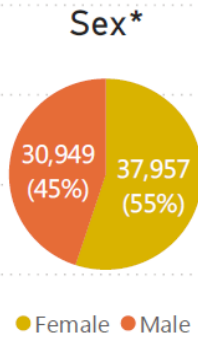


Massachusetts Department of Public Health COVID-19 Dashboard - Tuesday, May 05, 2020

Daily and Cumulative Confirmed Cases

Confirmed COVID-19 Cases To Date

● New Cases by Date ● Cumulative Total Cases by Date

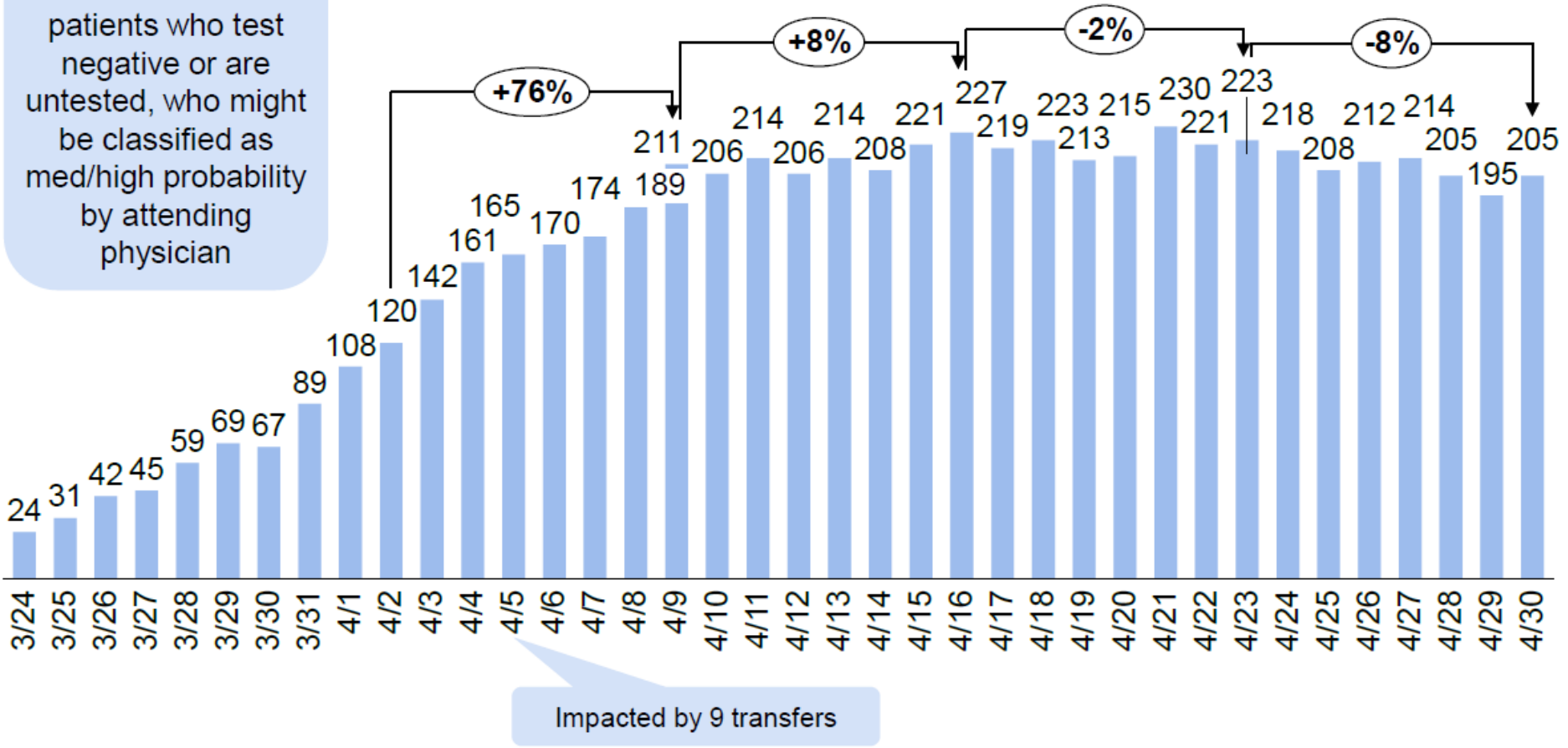


Data Sources: COVID-19 Data provided by the Bureau of Infectious Disease and Laboratory Sciences; Tables and Figures created by the Office of Population Health.
 Note: all data are cumulative and current as of 10:00am on the date at the top of the page; *Excludes unknown values

Our COVID-19 daily census has been leveling off

BMC Total COVID positive¹ census using final test status² All beds (ICU, Med/Surg, IMCU, L&D)

Does not include patients who test negative or are untested, who might be classified as med/high probability by attending physician



1. Assumes 100% of pending results are positive.
2. Includes patients admitted but who are in ED awaiting bed

BMC Post-COVID

- Reduction in ambulatory visits all over hospital
- 90% fewer in-person visits in pediatric primary care
- Elective surgeries cancelled
- 750 staff furloughed
- Pediatricians and pediatric nurses deployed to COVID inpatient teams
- Condensed clinic space due to increase in inpatient beds
- Newborns of COVID + moms
 - No VNA or home health services available for COVID + households

The New York Times

- ***Child Vaccinations Plummet 63%, a New Hurdle for N.Y.C. Schools***
- Parents hesitate to take children to doctors' offices, but students have to meet immunization requirements to attend school in the Fall.
- During the height of the pandemic - March 23 to May 9 - the number of vaccine doses administered to children dropped 63% compared with the same time last year, and by 91% for children older than 2, according to the city health department.

COVID Impact on Primary Care Clinic

Initial Plan:

- “Essential” Visits
 - Newborns
 - Children under 24 months who need vaccinations
- Telemedicine:
 - For older children, children with chronic conditions, those still reluctant to come into clinic

Dramatic decrease in outpatient pediatric volume in mid-March
Families still reluctant to bring children in

Plan B

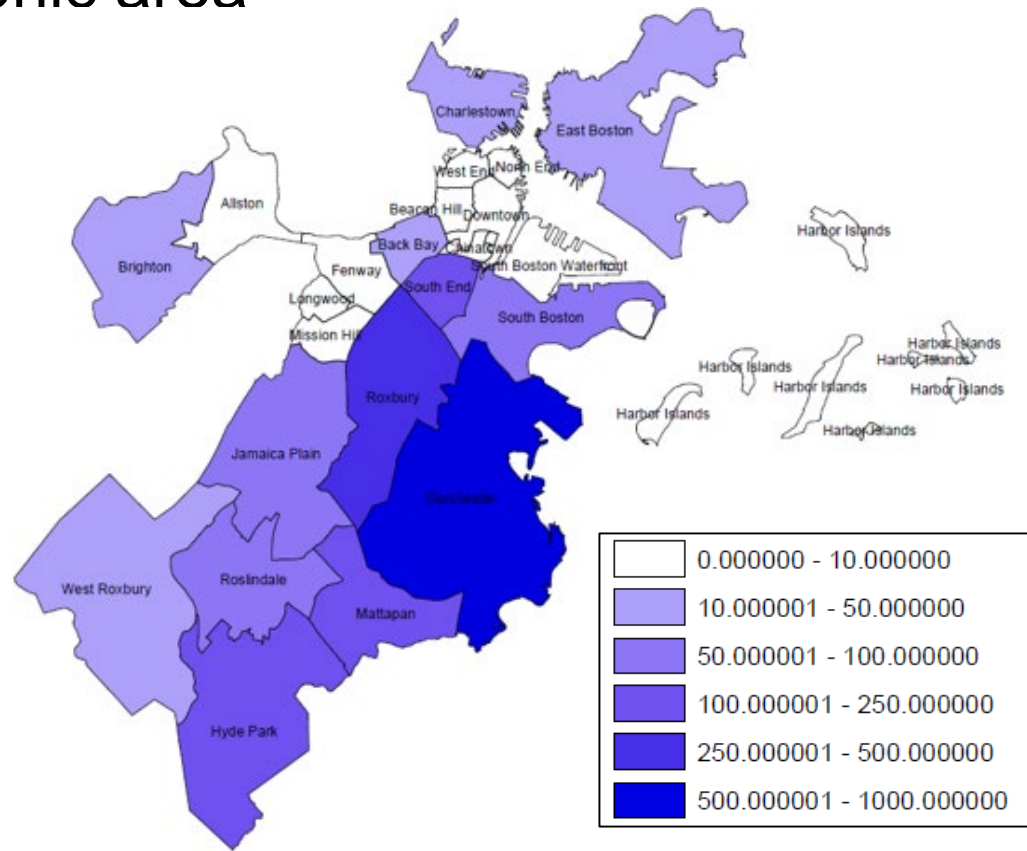
- Bring vaccines to the patients!
- Brainstorming process (Clinic leadership, patient families)
- Philanthropic outreach
- Local ambulance company offered ambulance and driver
- Reviewed missed appointments over the first weeks of the pandemic to identify missed opportunities to vaccinate
 - > 200 missed appointments in first 2 weeks!
- Panel management
 - Providers reviewed panel lists and assigned visit types

Engaging Stakeholders

- Department Chair and Hospital Leadership
- BMC Legal Department
- Regulatory Department (Infection Control, Safety, Compliance)
- Public Safety
- Command Central
- MA Department of Public Health Immunization Division
- Boston Public Health Commission
- Human Resources
- Nursing Union
- Laboratory services
- Pharmacy services

Mapping Visits

- Filtered identified patients by zip code
- Started with neighborhoods with largest volume
- Appointments per geographic area
- 5-6 patients per session
- Mostly Greater Boston



- More efficient if sibling visits

Planning Process

Scheduling:

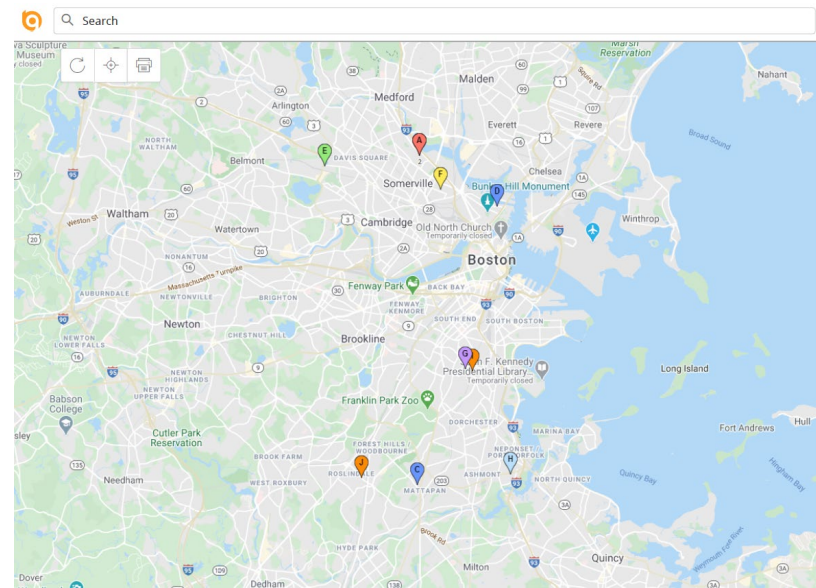
- Outreach to families identified by PCP
- Prepare Families for Visit + Symptom Screen (COVID-19)
- Give window timeframe of visit
- Identify Additional needs (food, diapers)

One Day Prior

- Providers review lists
- Final Schedule and Map
- Supply Checklist

Day of Visit

- Pack Vaccines
- Call Patients with Estimated Time of Arrival
- Complete Visits



Vaccines

- MA immunization rates historically high
- BMC is a Vaccine For Children (VFC) provider site
- MDPH Immunization Program guidance and approval to take vaccines out into the field
- Preparing Vaccines:
 - “Travel Pack” is used to store vaccines
 - Prepared per to CDC guidelines
 - Data Logger and Thermometer
 - Temperature parameters monitored every 2 hrs
 - Data uploaded to the Immunization program



MA Immunization rates high due to state's investment in vaccines for all children up to age 19 years

Packing Vaccines for Transport during Emergencies

Be ready BEFORE the emergency

Equipment failures, power outages, natural disasters—these and other emergency situations can compromise vaccine storage conditions and damage your vaccine supply. **It's critical to have an up-to-date emergency plan with steps you should take to protect your vaccine.** In any emergency event, activate your emergency plan immediately. Ideally, vaccine should be transported using a portable vaccine refrigerator or qualified pack-out. However, if these options are not available, you can follow the emergency packing procedures for refrigerated vaccines below:

1 Gather the Supplies



Hard-sided coolers or Styrofoam™ vaccine shipping containers

- Coolers should be large enough for your location's typical supply of refrigerated vaccines.
- Can use original shipping boxes from manufacturers if available.
- Do NOT use soft-sided collapsible coolers.



Conditioned frozen water bottles

- Use 16.9 oz. bottles for medium/large coolers or 8 oz. bottles for small coolers (enough for 2 layers inside cooler).
- Do NOT reuse coolant packs from original vaccine shipping container, as they increase risk of freezing vaccines.
- Freeze water bottles (can help regulate the temperature in your freezer).
- Before use, you must condition the frozen water bottles. Put them in a sink filled with several inches of cool or lukewarm water until you see a layer of water forming near the surface of bottle. The bottle is properly conditioned if ice block inside spins freely when rotated in your hand (this normally takes less than 5 minutes).



Insulating material — You will need two of each layer

- **Insulating cushioning material** - Bubble wrap, packing foam, or Styrofoam™ for a layer above and below the vaccines, at least 1 in thick. Make sure it covers the cardboard completely. Do NOT use packing peanuts or other loose material that might shift during transport.
- **Corrugated cardboard** - Two pieces cut to fit interior dimensions of cooler(s) to be placed between insulating cushioning material and conditioned frozen water bottles.



Temperature monitoring device - Digital data logger (DDL) with buffered probe. Accuracy of $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$) with a current and valid certificate of calibration testing. Pre-chill buffered probe for at least 5 hours in refrigerator. Temperature monitoring device currently stored in refrigerator can be used, as long as there is a device to measure temperatures for any remaining vaccines.

Why do you need cardboard, bubble wrap, and conditioned frozen water bottles?

Conditioned frozen water bottles and corrugated cardboard used along with one inch of insulating cushioning material such as bubble wrap keeps refrigerated vaccines at the right temperature and prevents them from freezing. **Reusing vaccine coolant packs from original vaccine shipping containers can freeze and damage refrigerated vaccines.**



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Distributed by

Visit www.cdc.gov/vaccines/SandH
for more information, or your state
health department.

Staffing

- Driver
- Pediatrician and RN
- One sits up front with the driver to plan the route
- Set up as an exam room (All staff in PPE)
- One healthy adult brings child to the mobile unit
- Provider speaks with adult about concerns
- Weight, Measurements, Physical Exam ...and Vaccines!
- Reach Out and Read Books



CENTER
**BOSTON
MEDICAL**

The Mobile Unit











BOSTON MEDICAL CENTER

The Tent

Drive Up Tent

- Large tent outside hospital with convenient parking
- Set up as a pediatric exam room with exam table + scale
- Families scheduled in advance and call as they approach
- Symptom screening upon arrival
- One family at a time

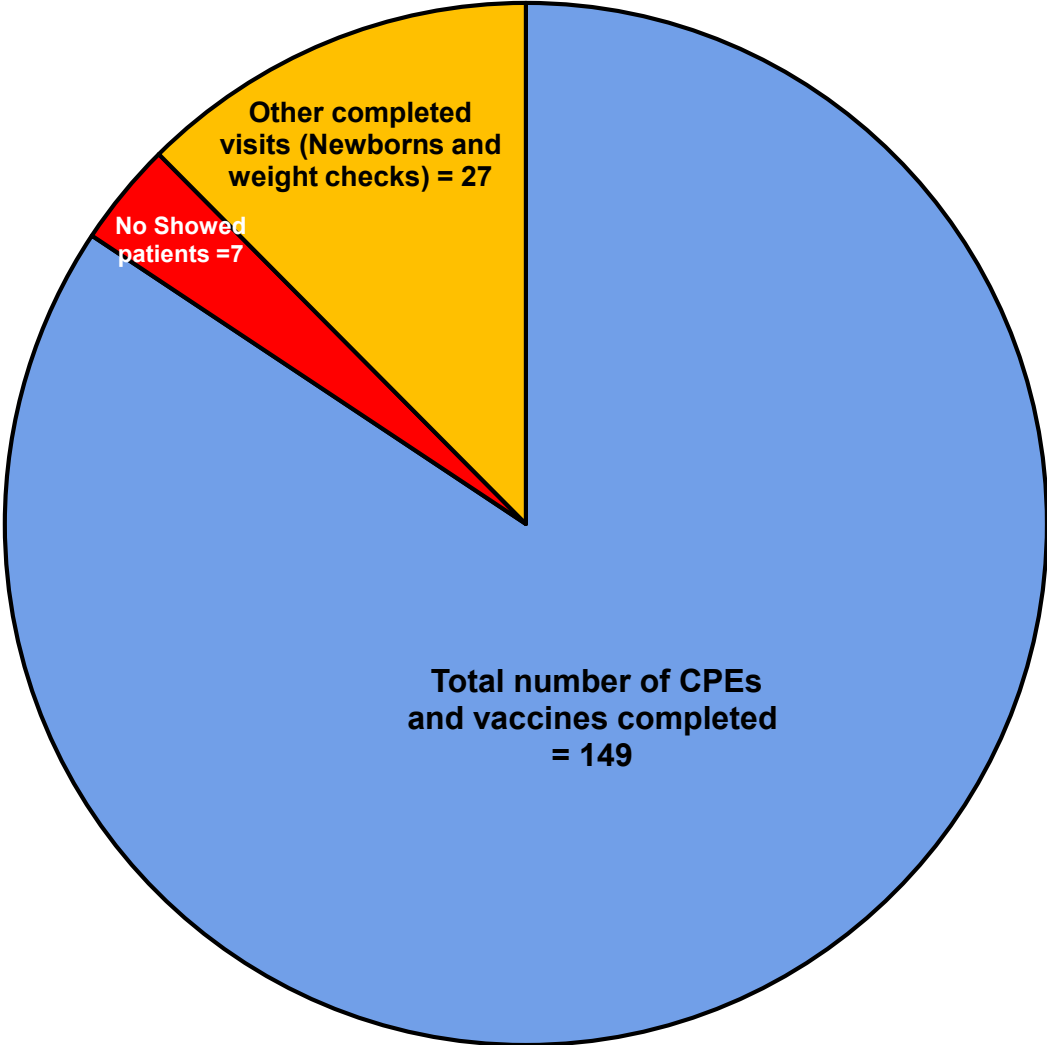
For families who do not want or for whom it's not practical to do a curbside visit







Sum of scheduled Mobile Ambulance Visits



Things to Work On

- No-show rate
- High cost, even with donated vehicle
- Staffing
- Pre-visit planning to complete developmental screenings prior to visit

No Show Rate: not 0% even with stay-at-home order

Advantages

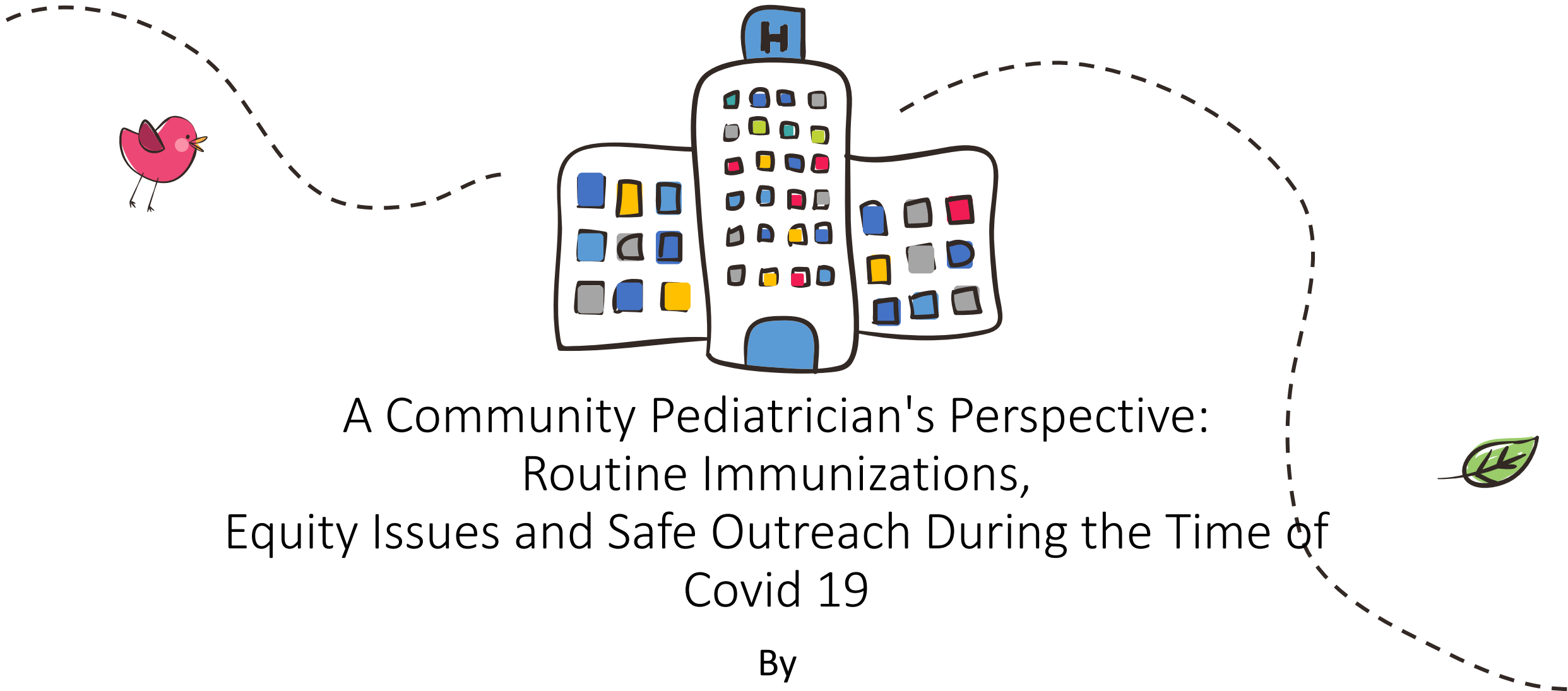
- Vaccinations!
- Morale booster
- Families appreciative
- Providers gain new insights about our families from seeing them in their own homes/communities

Acknowledgements

- Dr. Eileen Costello – Chair of Ambulatory Pediatrics, Boston Medical Center
- Boston Medical Center Pediatrics – leadership, colleagues, nurses, staff
- Ann Aiken, NVAC, HHS
- Ilka Chavez, HHS, OASH

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- Santoli J et al. **Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Pediatric Ordering and Administration – United States.** May 15, 2020 *MMWR Early Release*.
<https://www.cdc.gov/vaccines/recs/storage/downloads/emergency-transport.pdf>
- Hoffman J. Vaccine rates drop dangerously as parents avoid doctor's visits. *New York Times*. April 23, 2020. <https://www.nytimes.com/2020/04/23/health/coronavirus-measles-vaccines.html>
- Federal Emergency Management Agency. Bringing resources to state, local, tribal & territorial governments. Washington, DC: US Department of the Homeland Security, Federal Emergency Management Agency; 2020. <https://www.fema.gov/coronavirus/government>



A Community Pediatrician's Perspective:
Routine Immunizations,
Equity Issues and Safe Outreach During the Time of
Covid 19

By

Medhine Anusha Wijetilleke, MD, MS, FAAP

Dr. "Anusha" Wijetilleke



Medhine Anusha Wijetilleke, MD, MS, FAAP
Pediatrics

Introduction

- Community Pediatrician for 10 years
- Pediatrician for HealthWorks for Northern Virginia for 5 years

Our Philosophy

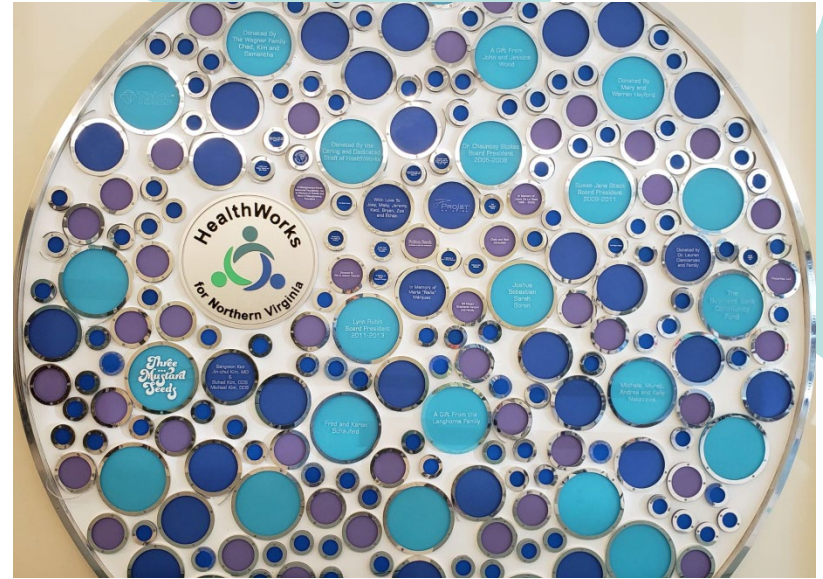



Our Mission at HealthWorks for Northern Virginia:

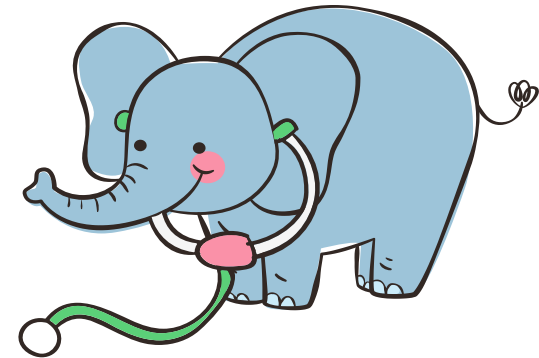
To provide excellent and affordable medical, dental and behavioral healthcare by being compassionate, culturally competent and accessible to all.

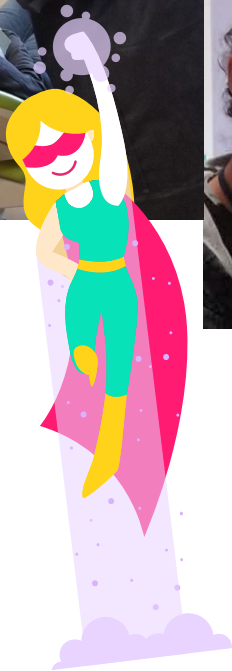
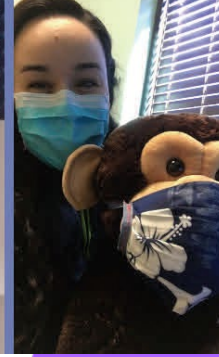
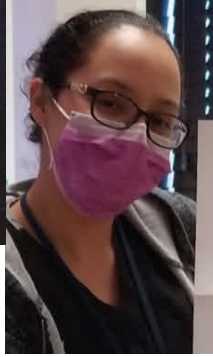
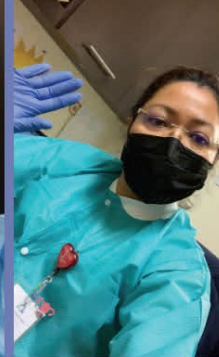
Integrity Compassion Accountability Respect Excellence

HealthWorks for Northern Virginia



-  **FQHC** (Federally Qualified Health Center)
- Serve **17,000** patients in the **Northern Virginia Area**
- We see **Newborns up through the Very Young at Heart**
- Services: **Primary Care, Gynecology, Behavioral Health, Dentistry**
- Funded by Grants, Donations, Fee for Service (Sliding Scale, Insurance)
- Well known in the community (Schools, HDs, WIC)





OUR TEAM

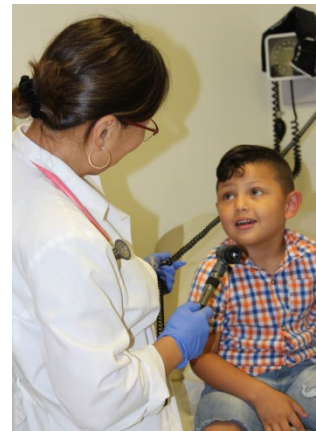


What Health Equity Efforts Can Learn from Immunization Initiatives

- **How NICHQ Defines Health Equity:**

This is the state in which everyone in a population has the opportunity to attain full health potential and no one is disadvantaged from achieving this potential because of social position or any other socially defined circumstance or social determinant of health (e.g., race, ethnicity, income, educational level, housing).

“NICHQ. What Health Equity Efforts Can Learn from Immunization Initiatives.” Nichq.org.
<https://www.nichq.org/insight/what-health-equity-efforts-can-learn-immunization-initiatives>. Web. 22
May 2020.



Towards Equity in Immunisation



- “There is a **growing body of research**, including systematic reviews, showing that **multi-component, locally** designed interventions are most effective in **reducing inequities** in **immunisation uptake**”
- “Inequities are not resolved by providing the same immunisation services to all; they are resolved by providing **different immunisation** services that **satisfy** the needs of **all.**”

Boyce, Tammy et al. Towards Equity in Immunisation.”
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6337057/>. 10 Jan. 2019. Web. 22 May 2020.





HealthWorks for Northern Virginia

Affordable Health Care for You and Your Entire Family

We provide comprehensive affordable medical, dental and behavioral health care for people of all ages. You do not have to have health insurance or an income to become a patient at HealthWorks.

Medicaid and Medicare patients are always welcome.

We will assist you with registering as a new patient, scheduling your first appointment and seeing if you qualify for our Sliding Fee Discount Program, which provides a discount on our fees based on your annual income and family size.

To Schedule Your Appointment:
703-443-2000

 **24/7 Doctors On-Call**
www.hwnova.org

Our Services

Become a patient and benefit from these services:

- Newborn, Infant & Well Child Care
- Pediatric Sick Visits
- Immunizations
- Routine Physical Exams
- Women's Health & Gynecology
- Family Planning
- Employment, School & Sports Physicals
- Chronic Illness Management
- Health Care for Older Adults
- Dental Care
(including crowns, bridges & dentures)
- Behavioral Health, including Psychiatry
- Medication Assistance
- Lab Services
- Family Support & Case Management
- Enrollment Assistance in Health Insurance

Leesburg Center
163 Fort Evans Road NE
Leesburg, VA 20176



Reston Center
11484 Washington Plaza West
Suite 300
Reston, VA 20190

Herndon Center
1141 Elden Street, 3er piso
Herndon, VA 20170

703-443-2000



HealthWorks for Northern Virginia

Cuidado de Salud Asequible para Usted y su Familia

Ofrecemos servicios comprensivos y de bajo costo de atención médica, dental, y de salud de la conducta para gente de todas las edades, sin importar su capacidad de pagar, incluyendo personas que no tienen aseguranza o no tienen suficiente aseguranza.

Pacientes de Medicaid y Medicare son siempre bienvenidos.

Le ayudaremos a registrarse como paciente nuevo, programar su primera cita y ver si reúne los requisitos para nuestro Programa de descuento de tarifa móvil, que ofrece un descuento en nuestras tarifas en función de su ingreso anual y el tamaño de su familia.

Para programar su cita:
703-443-2000

 **24/7 Doctores de Turno**
www.hwnova.org

Nuestros Servicios

Conviértase en paciente y beneficio de estos servicios:

- Exámenes físico para niños
- Exámenes para recién nacido y lactante
- Visitas enfermos pediátricos
- Vacunas
- Medicina general
- Salud de la mujer y ginecología
- Planificación familiar
- Chequeos físicos, para el empleo, la escuela y los deportes
- Exámenes físicos de rutina
- Cuidado de enfermedades crónicas
- Cuidado de salud de la tercera edad
- Cuidado dental
(incluyendo coronas, puentes y dentaduras)
- Consejería de salud mental y psiquiatría
- Asistencia para medicamentos
- Servicios de laboratorio
- Coordinación de cuidados
- Asistencia en la inscripción para un seguro de salud

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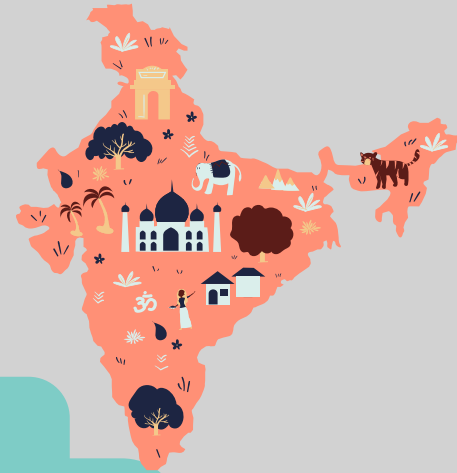
703-443-2000

History of Vaccines



FIGURES SHOWING VACCINATION PUSTULES
From a Chinese work on Vaccination

Several accounts from the 1500s describe smallpox inoculation as practiced in China and India... That method involved grinding up smallpox scabs and blowing the matter into nostril... or by scratching matter from a smallpox sore into the skin. Some sources claim dates as early as 200 BCE.



Buddhist monks drank snake venom to confer immunity to snake bite.

"A brief history of vaccination." <https://www.immune.org.nz/vaccines/vaccine-development/brief-history-vaccination>. Jan 2020. Web. 31 May 2020.

"The History of Vaccines." https://www.historyofvaccines.org/timeline#EVT_1.collegeofphysicians.org. Web. 31 May 2020.

Immunization Policy Issues Overview

- “CDC estimates **vaccines prevented 21 million hospitalization** and over **730,000 deaths** among children between 1994 and 2013.”
- “**School and daycare immunization requirements serve as “safety net”** for children who do not receive their recommended immunizations as an infant or small child
- School requirements are **state** based, reflect recommendations by **ACIP**

“Immunization Policy Issues.”NCLS.org.

<https://www.ncsl.org/research/health/immunizations-policy-issues-overview.aspx>. 14 May 2020. Web.

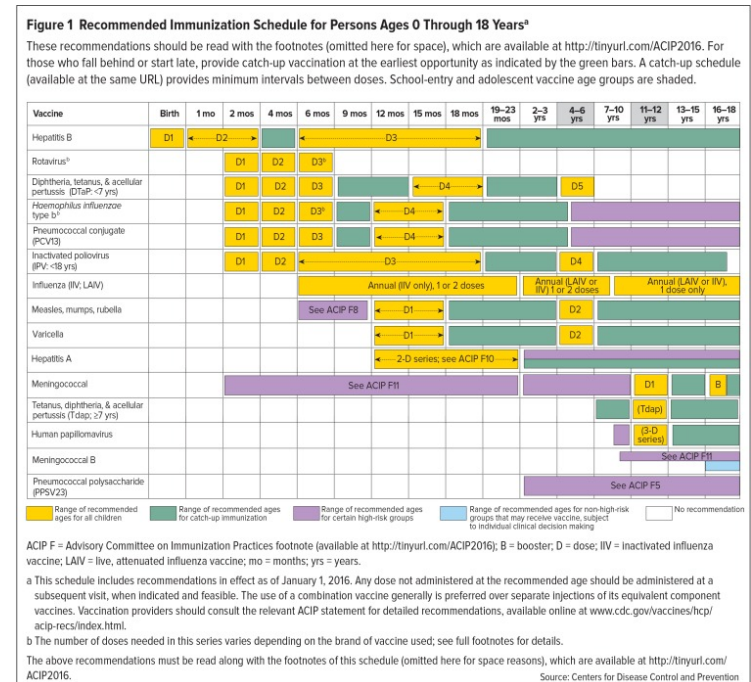
22 May 2020.

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

- Vaccinations are effective primarily due to two factors:
 1. Once a person is **immunized**, the **rate of that disease** and its asymptomatic **carrier** state, are **decreased**.
 2. **“Herd immunity”**
- As a result of the **availability of vaccinations**, most vaccine-preventable diseases (**VPDs**) that had been health threats for centuries have experienced a **dramatic decline** in mortality and morbidity.

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

- Currently **10 vaccines** are included in the standard recommendations for children at specific ages between **birth and 10 years**
- Currently, **five vaccines** are routinely recommended for **adolescents**



Ventola, C. Lee. "Immunization in the United States: Recommendations, Barriers, and Measures to Improve Compliance". July 2016. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927017/>. 24 May 2020.

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

- Paradoxically, one reason for vaccine **hesitancy** among parents may be the widespread **success** of immunization
- Therefore the **perceived risk of VPDs is low**
- **After 2 years of age, most children** are only brought to the doctor for **sick** visits. This is because parents often assume that after reaching age 2, healthy children don't need to be seen by a health care provider.
- This is particularly true for patients who are **disadvantaged socioeconomically** and go to the doctor only when they need to, that is, when they are sick or need a prescription.

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

Reasons for **Noncompliance**

- Concern About Side Effects and Safety of vaccines
- Think their children are more likely to acquire infectious diseases if vaccinated
- ADHD and/or Autism
- Objection to the Large Number of Injections
- Moral or Religious Grounds
- Lack of Access Due to Cost, Lack of transportation or inconvenient clinic hours
- Hard times because of job loss, divorce, home foreclosure, or other financial hardship, overwhelmed, and overworked
- Difficulty in reserving an appointment
- Lack of Information
- Language barriers
- Insufficient knowledge about immunizations

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

- The **CDC's Task Force on Community Prevention Services** has identified **three** categories for **interventions** to overcome **vaccine noncompliance**:
 - 1. Increasing community demand** for vaccination
 - 2. Enhancing access** to vaccination services
 - 3. Health Provider-Based Interventions**

Immunization in the United States: Recommendations, Barriers and Measures to Improve Compliance

- **Absent or weak recommendations from health care providers are primary drivers of poor vaccine uptake.**
- **Health care provider interventions :**
 1. Patient counseling
 2. Improving access to vaccinations
 3. Maximizing patient office visits
 4. Offering combination vaccines
 5. Using electronic medical records (EMRs) and practice alerts
- **Community- and government-based interventions to improve parent and patient adherence include:**
 1. Public education
 2. Reminder/recall strategies
 3. Financial incentives
 4. Providing alternative venues for vaccination



We are all connected...

Vaccines low trust

- “People with **more trust** in **Scientists, doctors and nurses** more likely to agree to vaccine were **safe**”
- “Those who **sought information** about science, medicine, health, **less likely** to agree” that vaccines are safe



“Wellcome Global Monitor 2019: Attitudes to Vaccines.” PDF file.

Attitudes to Vaccines

- According to WHO and UNICEF “**gains in the world’s fight against vaccine-preventable diseases are at risk**”; **Rising number losing confidence** in vaccines
- “Lack of confidence in **safety and/or effectiveness** of vaccines, and health system **shortage** of health care workers, supplies, depleted or destroyed health infrastructure, **poverty and access difficulties** (distance to the nearest clinic) threaten to disrupt the effectiveness of vaccination programs.”
- The WHO has specifically identified **vaccine hesitancy** –as **one of the top ten health threats** to the world in 2019.”
- **Risk** to decreased **herd immunity**
- For herd immunity to work, a **large % of the population has to be vaccinated.**

Attitudes to Vaccines

- People in **high economic areas** are less likely to think that vaccines are **safe** compared to **lower** economic areas
- **% of People Who Agree That Vaccines Are Safe: Globally agree 79%**
- High income less certainty: **North America 72%, Europe 40% to 73%**
- **In Low income agree perceived safety is higher, 80% or more**
- **“Understanding peoples attitudes towards vaccines will be critical to maintaining public health in the years ahead.”**

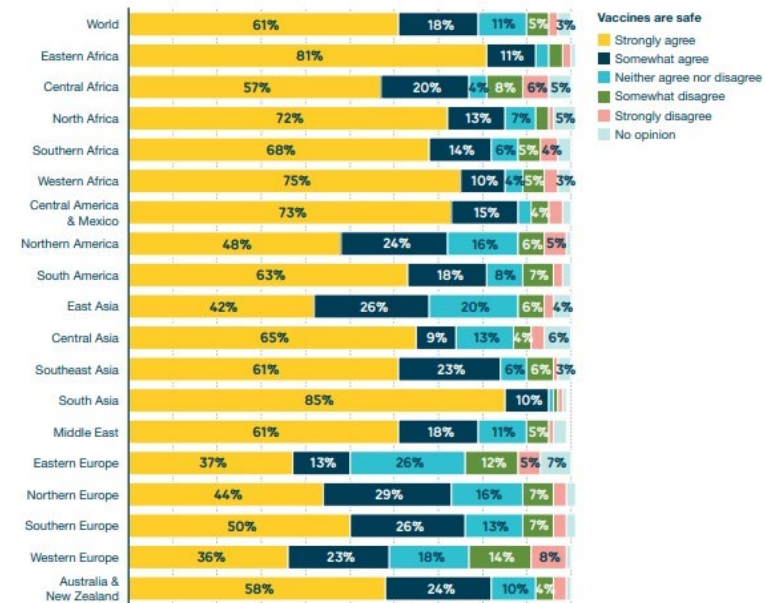
“Wellcome Global Monitor 2019: Attitudes to Vaccines.” PDF file.

Perceived safety of vaccines by region

Percentage of people who answered 'strongly agree', 'somewhat agree', 'neither agree nor disagree', 'somewhat disagree', 'strongly disagree' or 'no opinion'.

Do you agree, disagree, or neither agree nor disagree with the following statement?

Vaccines are safe.



Attitudes to Vaccines

- **Skepticisms of vaccine safety does not always translate to skepticism of vaccine effectiveness**
- Worldwide **84%** people believe vaccines are effective

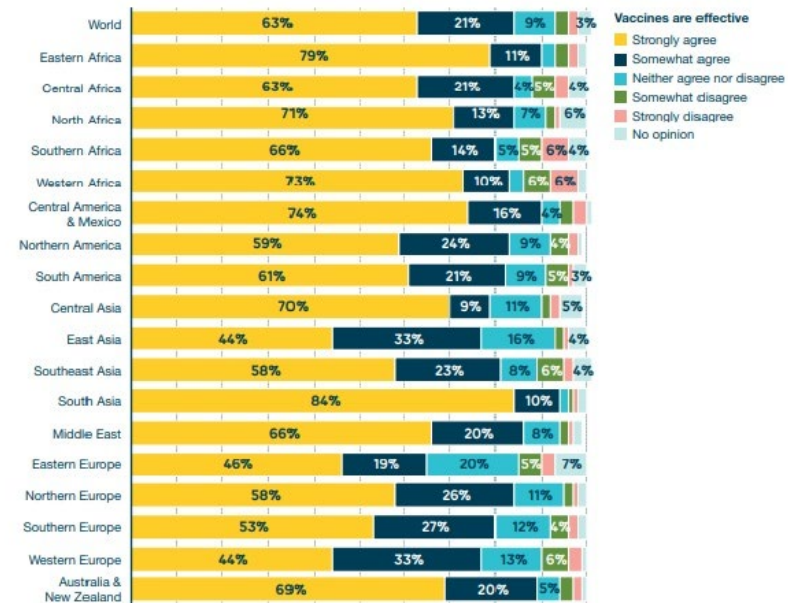
“Wellcome Global Monitor 2019: Attitudes to Vaccines.” PDF file.

Perceived effectiveness of vaccines by region

Percentage of people who answered 'strongly agree', 'somewhat agree', 'neither agree nor disagree', 'somewhat disagree', 'strongly disagree' or 'no opinion'.

Do you agree, disagree, or neither agree nor disagree with the following statement?

Vaccines are effective.



Attitudes to Vaccines

% of People who believe that vaccines are important for children to have:

- **Worldwide 92%**
- **Europe 80-86%**
- **North America 87%**
- **Eastern Africa 99%**
- **South Asia 96%**
- **South America 97%**
- **Mexico/Central America 98%**



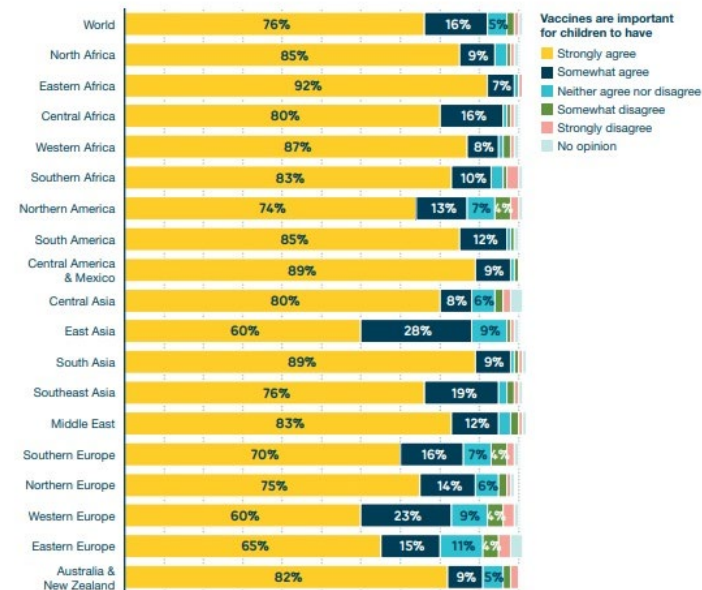
“Wellcome Global Monitor 2019: Attitudes to Vaccines.” PDF file.

Perceived importance of vaccines for children to have by region

Percentage of people who answered 'strongly agree', 'somewhat agree', 'neither agree nor disagree', 'somewhat disagree' 'strongly disagree' and 'no opinion'.

Do you agree, disagree, or neither agree nor disagree with the following statement?

Vaccines are important for children to have.



COVID-19



Bulletin of World Health Organization

- “A **higher standard of care** is needed during **public health crisis** because of the **immediate threat to life**. It is **ethically** reasonable for the **standard** of preventive care to **revert** to pre-existing levels after the heightened threat has subsided”
- “All societies have **shared vulnerability** to emergencies, **although poor societies** are more severely devastated because **poverty undermines resilience**.”
- “Utility (the common good) is... **often greatest** when the most **socially disadvantaged** groups are targeted.”

Bulletin of World Health Organization

- “**Children** are at particularly **high risk** of contracting communicable diseases during humanitarian crises. In most emergencies, **mortality** in children **under the age of 5 years** is generally **two to three** times higher than **crude mortality**.”
- **Vaccination children** could **reduce mortality in all age groups** because **epidemics often arise and spread among children**.”

Moodley, Katherine et al. “Bulletin of the World Health Organization. Ethical considerations for vaccination programmes in acute humanitarian emergencies”. 2 Feb. 2013.

<https://www.who.int/bulletin/volumes/91/4/12-113480/en/>. 24 May 2020.

Protecting lifesaving immunization services during COVID 19: New guidance from WHO

- “**Outbreaks of VPDs** could be **catastrophic** for communities and health systems already battling the impacts of **COVID-19**”
- **Prioritize immunization** of children as well as some adult vaccinations, such as Influenza
- Recommends **urgent** catch-up vaccines asap

“Immunization, Vaccines and Biologicals. Protecting lifesaving immunization services during COVID-19: New guidance from WHO”. 26 March 2020.

https://www.who.int/immunization/news_guidance_immunization_services_during_COVID-19/en/. 24 May 2020.

Delays in childhood vaccinations could lead to outbreaks, experts warn

- Per WHO, “Immunization is an essential health service which may be affected by the current Covid-19 pandemic, “the World Health Organization sais recently in a statement. “Disruption of the immunization services, even for brief periods, will results in increased numbers of susceptible individuals and raise the likelihood of outbreak-prone vaccine preventable diseases (VPDs) such as measles.”
- In the **US** ,dealing with **isolated outbreaks of VPDs**, due to misinformation and fear of inoculations
- April **2019**, **CDC** announced greatest number of measles cases in the country since 2000 **1249**

Polio and Measles Could Surge After Disruption of Vaccine Programs

- Disruption of Routine Immunization programs (due to Covid 19) globally putting **80 million children under 1 year old at risk** for contracting VPDs per **WHO, UNICEF and Gavi, the Vaccine Alliance**
- Public health experts worried that deaths from **cholera, rotavirus and diphtheria** could outstrip those from Covid-19 itself
- Per Dr. Seth Berkles, Chief Executive of Gavi, “Due to Covid-19, this immense progress (meaning the big gains in immunization against VPDS in recent years in developing countries) is now under threat, risking resurgence of disease like **measles and polio**.”... restarting immunization programs is crucial not just for preventing more outbreaks of life-threatening disease, he said: “It was also ensure we have the **infrastructure** we need to roll out an eventual Covid-19 vaccine on a global scale.”
- CDC coverage rate among **Michigan** infants had dropped **below 50%** for all **childhood immunization**, NYC during a six-week period of pandemic lock down, the number of vaccine doses administered to children dropped by **63%** compared to 2019
- Late March, up to **80% flights to Africa** which deliver **vaccines and syringes** were **canceled**... Hcpersonnell are afraid to proceed with supplies they have d/t lack of PPE, Parents are afraid to take their children to clinics and Hcperosnal are diverted to respond to Covid 19
- WHO had initially recommend mass vaccine programs to be halted during the pandemic, but now they are noting that Covid 19 has and will flare inconsistently from region to region... **urge countries to start pandemic safe vaccine practices asap**



A health worker administered polio vaccines to children on a three-day vaccination campaign in Peshawar, Pakistan, in February. Credit...Arshad Arbab/EPA, via Shutterstock

Hoffman, Jan. "Polio and Measles Could Surge After Disruption of Vaccine Programs." Nytimes.com.
<https://www.nytimes.com/2020/05/22/health/coronavirus-polio-measles-immunizations.html> .22 May 2020. Web.
22 May 2020.

AAP News: AAP issues guidance to ensure continued care for children during pandemic

- Per **AAP**, WCC should still be consistent with **Bright Futures Guidelines for Health Supervision of Infants, children and Adolescents**.
- If community circumstances require limiting in-person visits, guidance urges Pediatricians to, prioritize **Newborn care and immunizations/WCC through 24 months**
- Continue **well visits through telehealth** know that some **elements** of the exam need to be done in office once circumstance permit (such as vision, hearing, blood tests, measurements, immunizations)
- **Pediatrics should inform families about strategies** already in plan in the primary care medical home office to assure safety (schedule WCC and sick visits different times of the day, separate patients spatially, collaboration with providers in the area/community to identify separate locations for providing WCCs)

AAP News Federal officials: Pediatric practices will receive funding through CARES Act

“Pediatric practices and children’s hospitals facing financial crisis”

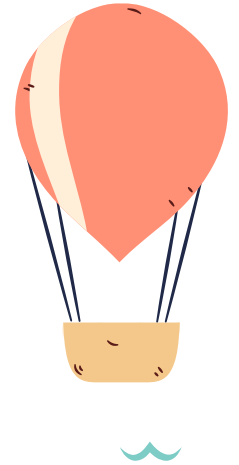
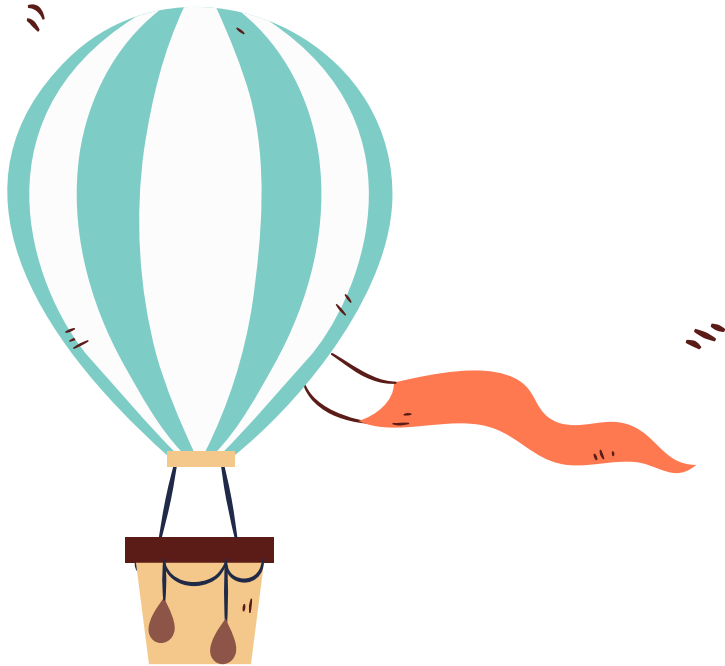
Despite attempts to transition as many sick and well-child visits to virtual care, pediatricians are losing revenue due to forgone visits and poorly compensated remote care. Children’s hospitals also are seeing large revenue losses from cancellation of deferrable procedures.

Practice managers have reported seeing only 20% to 30% of their normal caseload as a result of the pandemic, and children’s hospitals have experienced a revenue decline of 20% to 40% or more, according to the letter.

“Pediatric providers, as the nation’s medical safety net for all children, face unique challenges now and in the period after the COVID-19 pandemic,” according to the AAP and CHA. They anticipate these challenges will spur increases in: The number of children enrolled in Medicaid in the economic downturn. The likelihood that independent practices will close temporarily or permanently, leading to inconsistencies and delays in access to care. Delays in administering a COVID-19 vaccine once available due to pediatric practices closing.

“Pediatricians must be able to continue to vaccinate children to prevent an outbreak of another infectious disease,” they said. “Pediatric practices and children’s hospitals are an essential part of our nation’s public health and health care infrastructure.”

“The hand that rocks the cradle
is the hand that rules the
world.”



—William Ross Wallace

Our Patients



Based on the 24 month period ending April 30, 2020 we have a total of **17,644 patients**.

In the past 1 year we saw a total of **48,409 patients**

How many are 0-2 years of age? **Based on the 2019 UDS 5.8%**

How many are 0-18 years of age? **Based on the 2019 UDS 28.4%**

How many are uninsured/self pay? **Based on the 2019 UDS 61%**

How many have Medicaid? **Based on the 2019 UDS 23.3%**

How many are at or below the poverty level? **Based on the 2019 UDS 88.7%**



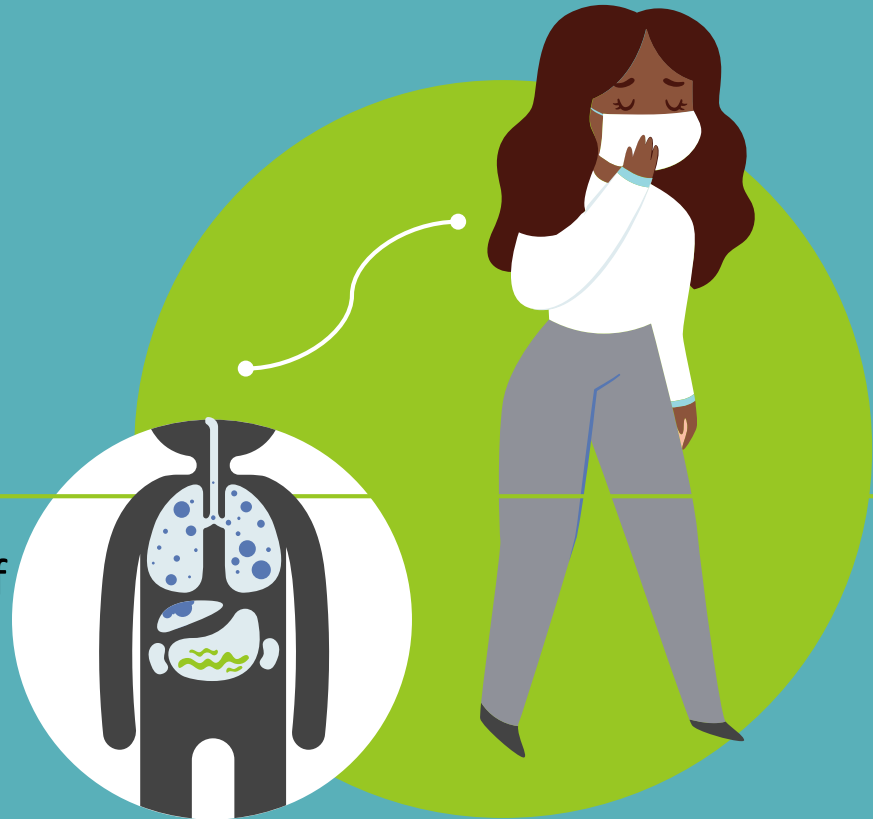
My Patients



- Mostly Hispanic/Spanish Speaking
- Recent immigrants to the US
- Undocumented
- In particular, are very vaccine conscientious; because of their community, because of outreach from the schools, Headstart, HD, their friends and US

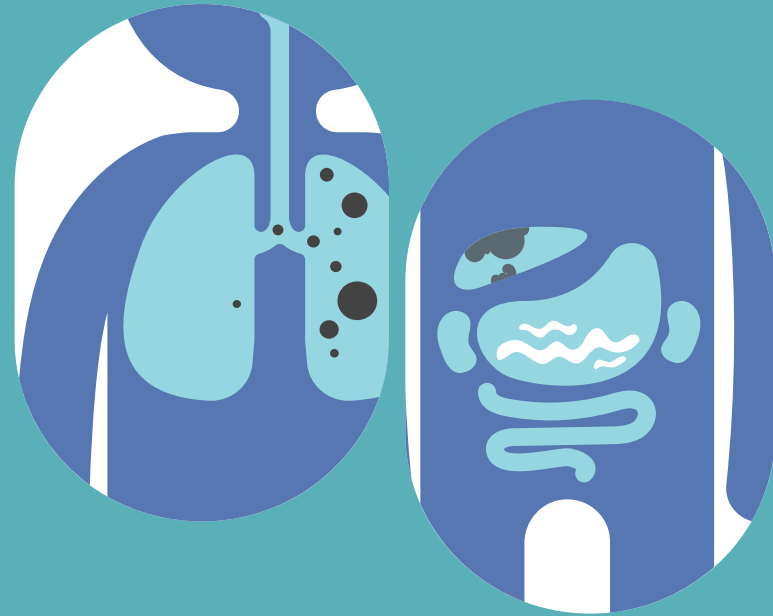
Covid 19

- Covid 19 has severely limited our access to patient care.
- For many because of fear of coming to see the doctor.
- When Covid first began, we were told to focus on Adults
- Early on with Covid we were told to screen Adults who had symptoms of fever, shortness of breath and dry cough
- No one really gave us advice about children



COVID-19 in Children: **Initial** Characterization of the Pediatric Disease

- Most children were **asymptomatic**
- Mild symptoms include: **fever, fatigue, myalgia, cough, sore throat, runny nose, and sneezing**. Some cases may have **no fever**, or have only **digestive symptoms** such as **nausea, vomiting, abdominal pain and diarrhea**.
- Children may play a **major role in viral transmission since they have more upper respiratory tract** involvement than lower
- There is also evidence of **fecal shedding** in the stool for several weeks after diagnosis... concern about **fecal-oral transmission** of the virus, particularly in those **not toilet-trained**, and for viral replication in the gastrointestinal tract.
- **Kawasaki Like Disease**



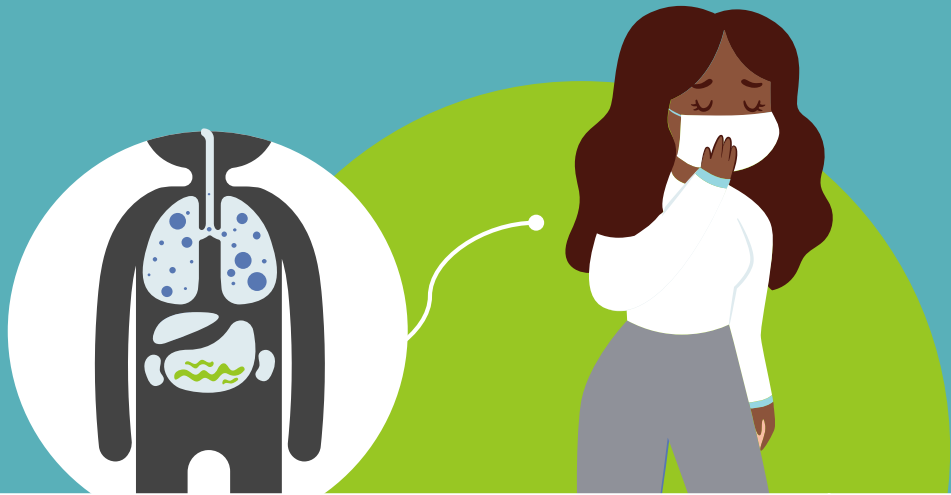
Dong, Y. et al. "Epidemiological Characteristics of 2143 Pediatric Patients With 2019 Coronavirus Disease in China."

<https://pediatrics.aappublications.org/content/pediatrics/early/2020/03/16/peds.2020-0702.full.pdf>. Web. 18 March 2020.

Woelfel, M. "Child Vaccinations Drop As Parents Fear COVID-19- And A Mysterious Illness." <https://npr.org/local/309/2020/05/14/856152194/child-vaccinations-drop-as-parents-fear-c-o-v-i-d-19-and-a-mysterious-illness>. Npr.org. 14 May 2020. Web. 22 March 2020.

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Covid 19



	Total HW Visits	Well Child Only 0-18y	Well Child Only 0-2y
Mar 16 - May 15, 2019	7554	519	239
Mar 16 - May 15, 2020	4984	185	172
% Change	34%	64%	28%

Barriers To Equity in the Time of Covid



- Documentation Status... they cannot afford NOT to work, no unemployment benefits
- Insufficient knowledge about Covid
- Safety nets are gone (Schools, WIC, HD) for vaccine compliance
- Lack of Transportation: Public transportation (increased risk of exposure to Covid)



Barriers for Us During the Time of Covid in Particular for Vaccines

- Parent's don't want to bring in their children for vaccines
- Parents aren't calling for WCCs
- Parents have a fear of seeing doctor... "If the clinic is safe?" "Are you healthy?" "How many people have Covid in the clinic/staff members or patients?"
- Per my CMA, "They don't trust that I am healthy. They don't want to put them (the patients) on the exam bed. We have to tell them it is very clean, we clean the room before they come in.
- "My kids are healthy and I don't want to risk them getting sick (by coming to the doctor's office)."
- ***My Patients are poor, live in rented rooms, have an undocumented status, They can't afford not to work even when they are sick.

What are we doing to make our patients
feels safe?





Lead by Example



STOP PARE

BEFORE ENTERING OUR CENTER:

If you have:

- Fever
- Cough
- Shortness of breath

• Do **NOT** come in close contact with someone confirmed to have COVID-19.

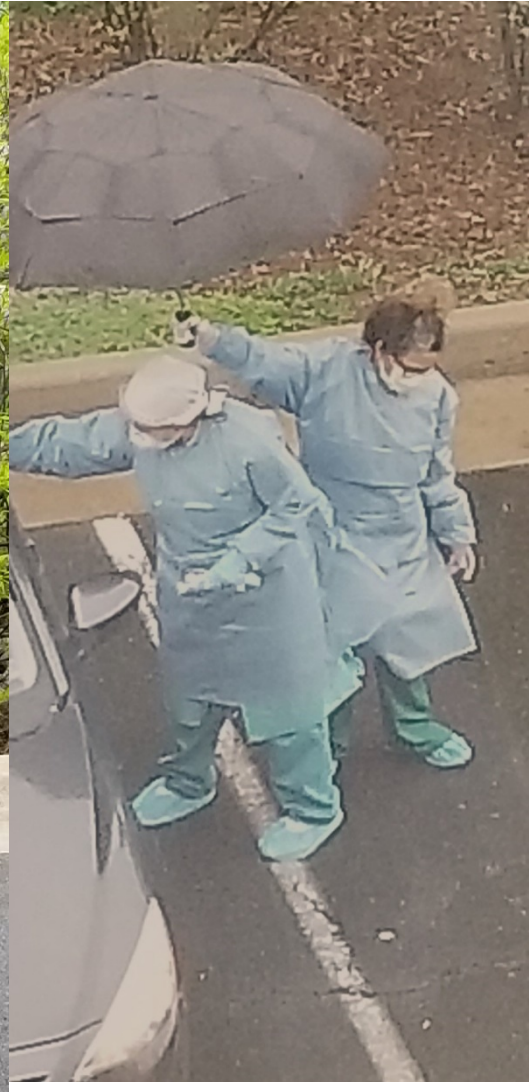
• Please return to your care and call us at 703-463-2000 and press option #1.

ANTES DE ENTRAR EN NUESTRO SERVICIO:

Si usted tiene:

- Fiebre
- Tos
- Dificultad para respirar

• O si ha tenido contacto cercano con alguien confirmado que tiene COVID-19. Comuníquese con el área de admisión al 703-463-2000 y presione la opción #1.



What are we doing to make our patients feels safe?

- Constant Communication! By actions, not just words alone.
- We are still seeing WCCs, providing immunizations !
- "We explain all of the precautions we have taken at HealthWorks and answer any questions they have. We instruct them that only one parent should come in at a time, that the parent and the child, if over 2 years old, should wear a mask... We try to convey this the best we can to keep our parents and patients at ease."
- Separating WCC visits from the sick/acute/Covid visits.
- Ask questions about fever cough, vomiting, diarrhea, Covid contacts at the time they may their appointment, as they enter the building and when we do our intake. Consistent.

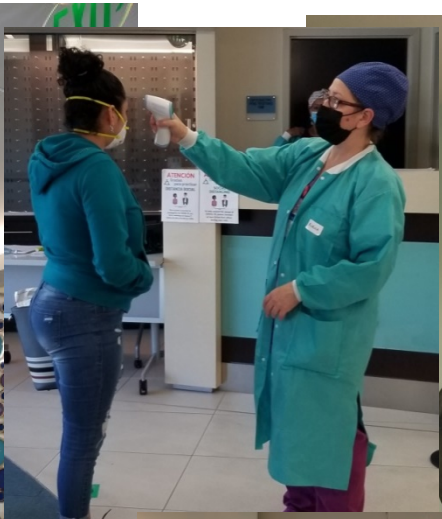
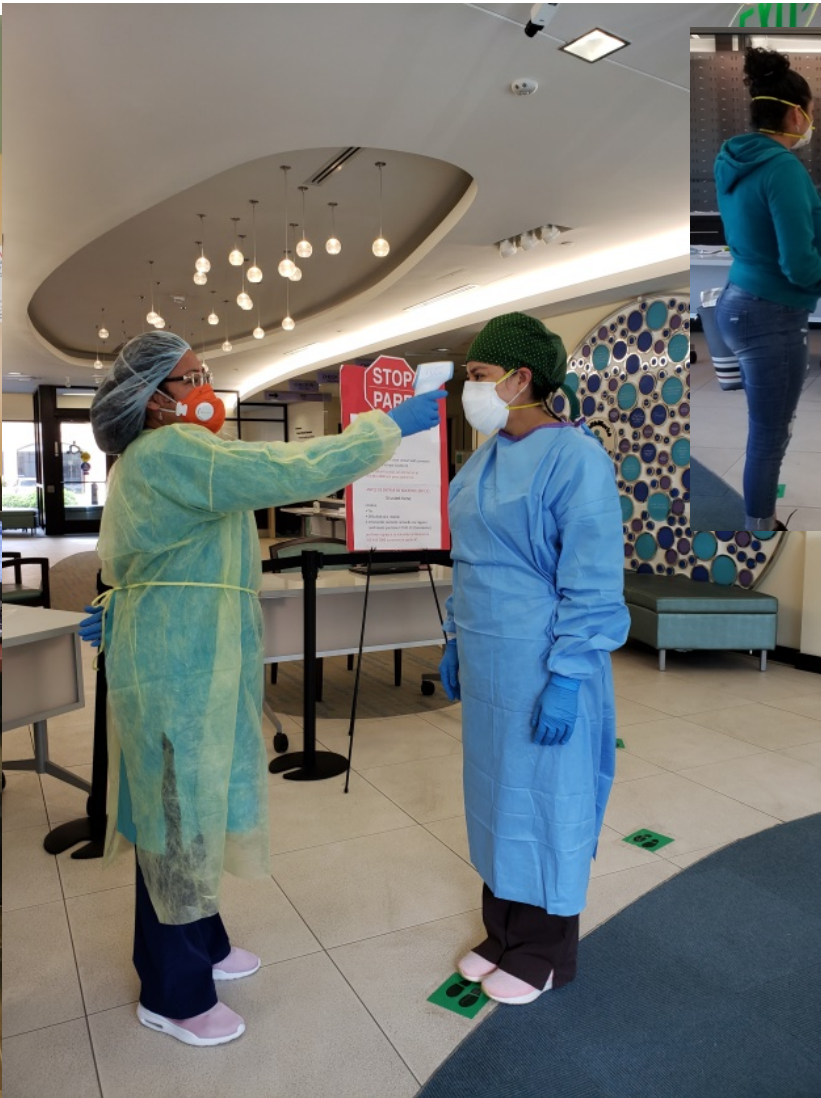
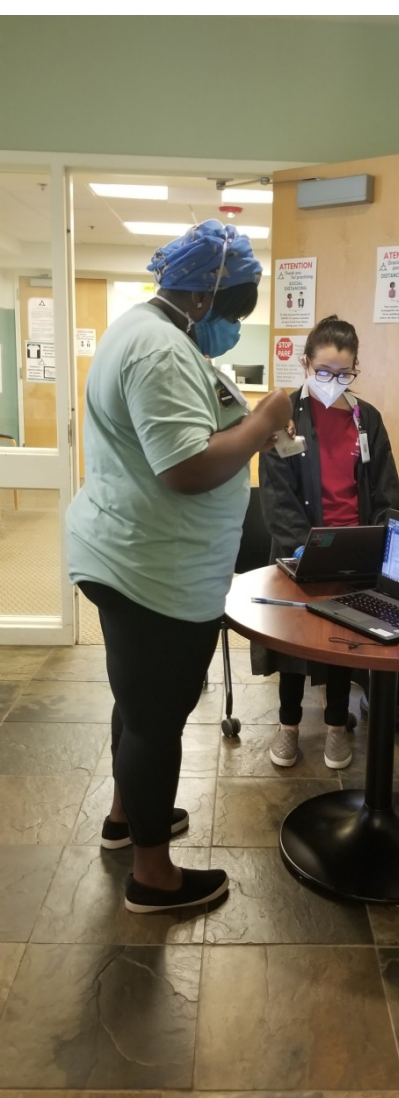


Pao, Maureen. "Don't Skip Your Child's Well Check: Delays in Vaccines Could Add Up to Big Problems." <https://www.npr.org/sections/health-shots/2020/04/29/840347518/dont-skip-your-childs-well-check-delays-in-vaccines-could-add-up-to-big-problems>. npr.org. 29 April 2020. Web. 22 May 2020.

What are we doing to make our patients feels safe?

- Our roles have expanded
- We try our best to follow up with all our patients for the WCCs and if they defer their appointments, or if we have to, due to Covid, we reschedule them as quickly and safely as possible.
- Increased Covid 19 testing by increasing to 2 providers per day triage.
- Keep Normalcy: “Reach Out and Read” program.
- Temperature before entering the building





**STOP
PARE**

BEFORE ENTERING OUR CENTER:
If you have:

- Fever
- Cough
- Shortness of breath
- Or have come in close contact with someone confirmed to have COVID-19

please return to your car and call us at 703-443-2000 and press option #1.

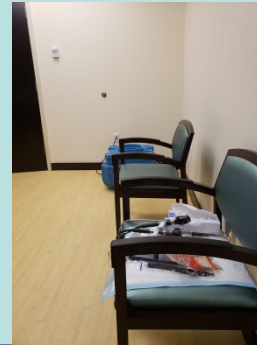
ANTES DE ENTRAR EN NUESTRO EDIFICIO:
Si usted tiene:

- Fiebre
- Tos
- Dificultad para respirar
- O ha tenido contacto cercano con alguien confirmado que tiene COVID-19 (Coronavirus)

por favor regrese a su automóvil y llámenos al 703-443-2000 y presione la opción #1.



Innovations

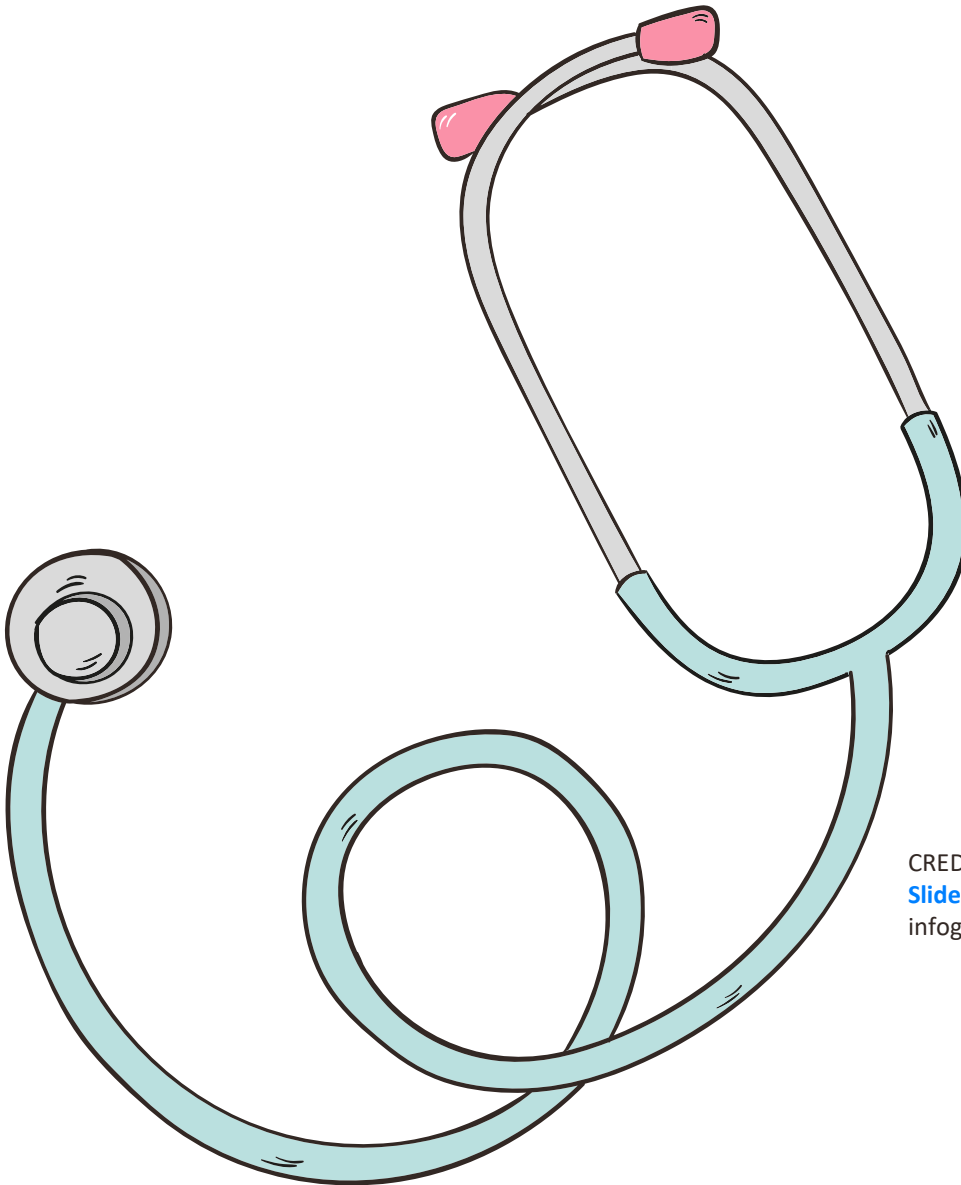


What is next for Fall/Winter 2020?

- Concern as a Pediatrician working in the outpatient setting
- Reopen our schedule for all WCCs for summer.
- Fall/Winter with RSV, Flu, and Covid... back to a skeleton schedule?

Resources

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THANK



Do you have any questions?

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