



Routine childhood vaccination during the COVID-19 pandemic

American Association of Immunization Managers
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Tara Vogt, PhD, MPH

Applied Research and Evaluation Team, Program Operations Branch
Immunization Services Division
National Center for Immunization and Respiratory Diseases
Centers for Disease Control and Prevention

What I will talk about today

- Monitoring the pandemic's impact on routine childhood vaccination
- Identifying barriers to vaccination
- Overcoming barriers to vaccination



***Monitoring the pandemic's impact on routine
childhood vaccination***

The ways CDC is monitoring impact

- Coverage via National Immunization Surveys (NIS-child, NIS-teen, NIS-flu)
- Administration via IIS data
- Orders of Vaccines for Children (VFC) vaccine via CDC's Vaccine Tracking System (VTrckS)

CDC analysis of IIS data: ID, IA, LA, MI, MN, NYC, ND, OR, WA, WI



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Morbidity and Mortality Weekly Report (*MMWR*)

CDC



Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March –September 2020

Weekly / June 11, 2021 / 70(23);840–845

Bhavini Patel Murthy, MD¹; Elizabeth Zell, MStat^{1,2}; Karen Kirtland, PhD^{1,3}; Nkenge Jones-Jack, PhD¹; LaTrece Harris, MPH¹; Carrie Sprague, MHS⁴; Jessica Schultz, MPH⁵; Quan Le⁶; Cristi A. Bramer, MPH⁷; Sydney Kuramoto, MPH⁸; Iris Cheng, MS⁹; Mary Woinarowicz, MA¹⁰; Steve Robison, MPH¹¹; Ashley McHugh, MPH¹²; Stephanie Schauer, PhD¹³; Lynn Gibbs-Scharf, MPH¹ ([View author affiliations](#))

Source: Patel B, Murthy , Zell E, et al. Impact of the COVID pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020. *MMWR Morb Mortal Wkly Rep* 2021;70:840–845. DOI: <http://dx.doi.org/10.15585/mmwr.mm7023a2>

Methods and primary findings

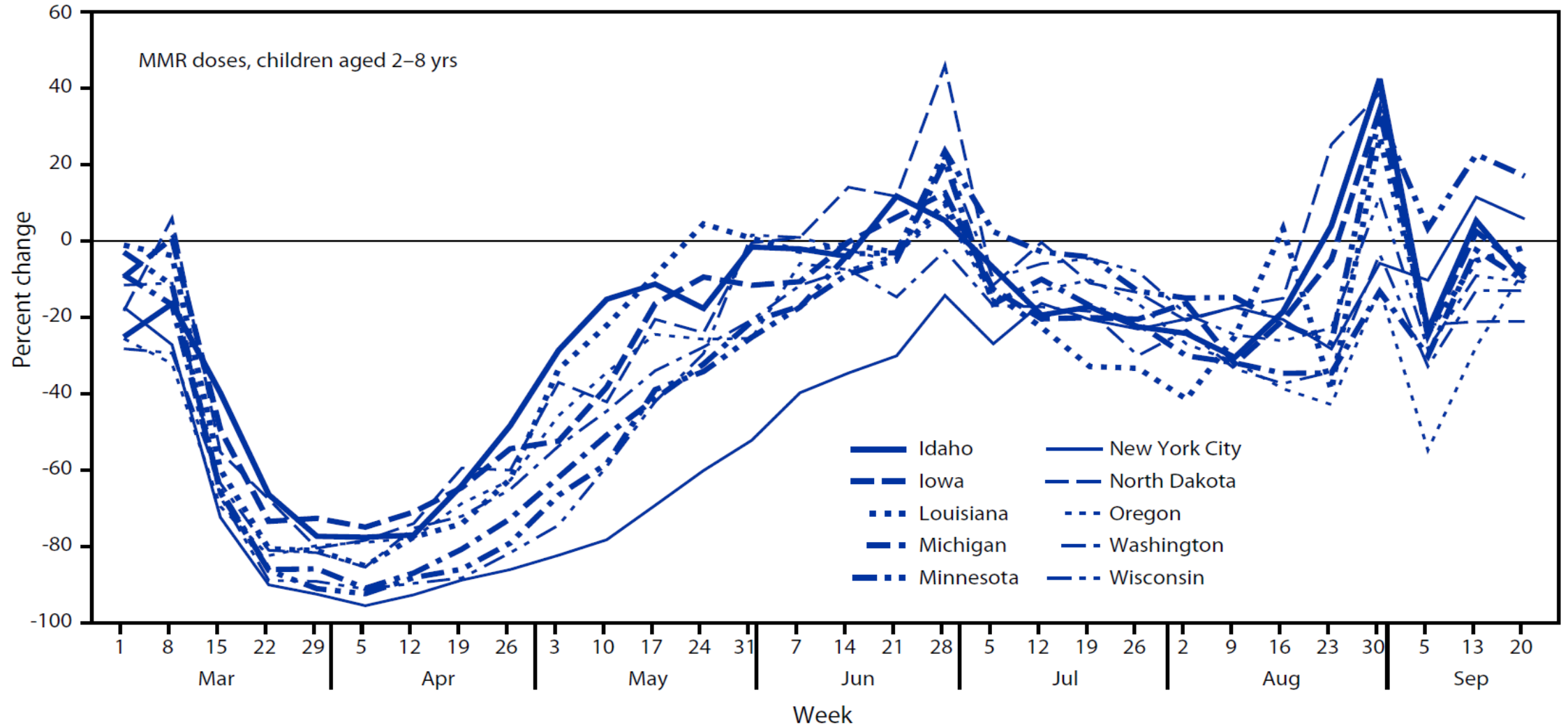
Methods:

- 10 states with high-performing IISs
- Pediatric administration of MMR, DTaP, HPV, and Tdap
- Administration early (March-May 2020) and later (June-September 2020) in the pandemic compared to the same months pre-pandemic

Primary findings:

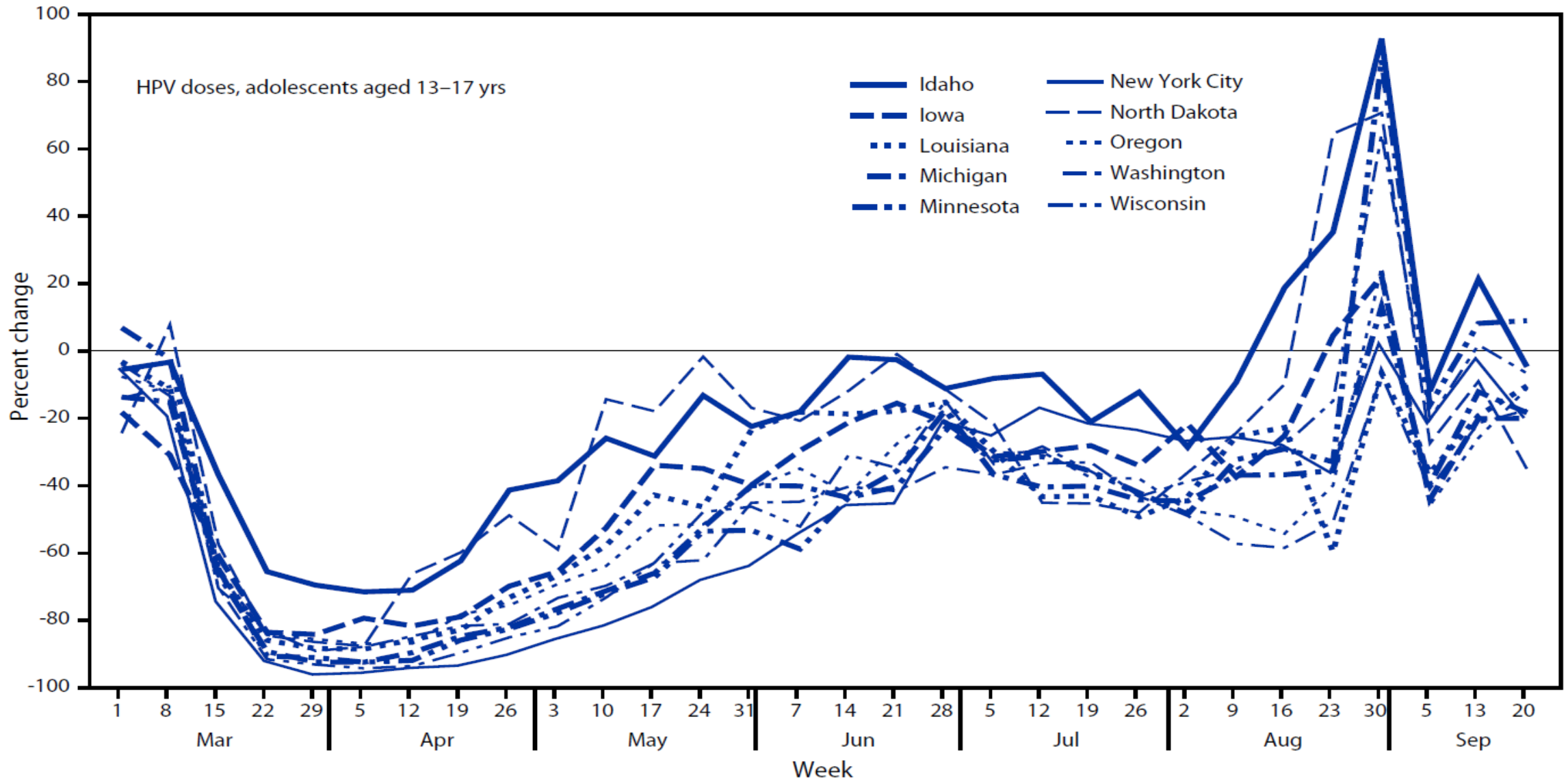
- Substantial declines were observed in the early period, with evidence of rebound in the later period
- Initial declines steeper in older age groups and for adolescent vaccines
- Observed rebounds were not sufficient for catch-up

Percent change in MMR vaccine administered to children aged 2-8 years, March-September 2020 compared to pre-pandemic



Source: Patel B, Murthy , Zell E, et al. Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020. MMWR Morb Mortal Wkly Rep 2021;70:840–845. DOI: <http://dx.doi.org/10.15585/mmwr.mm7023a2>

Percent change in HPV vaccine administered to adolescents aged 13-17 years, March-September 2020 compared to pre-pandemic



Source: Patel B, Murthy , Zell E, et al. Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020. MMWR Morb Mortal Wkly Rep 2021;70:840–845. DOI: <http://dx.doi.org/10.15585/mmwr.mm7023a2>

Analysis of Vaccines for Children (VFC) vaccine doses ordered via CDC's Vaccine Tracking System (VTrckS)

Morbidity and Mortality Weekly Report (*MMWR*)

CDC



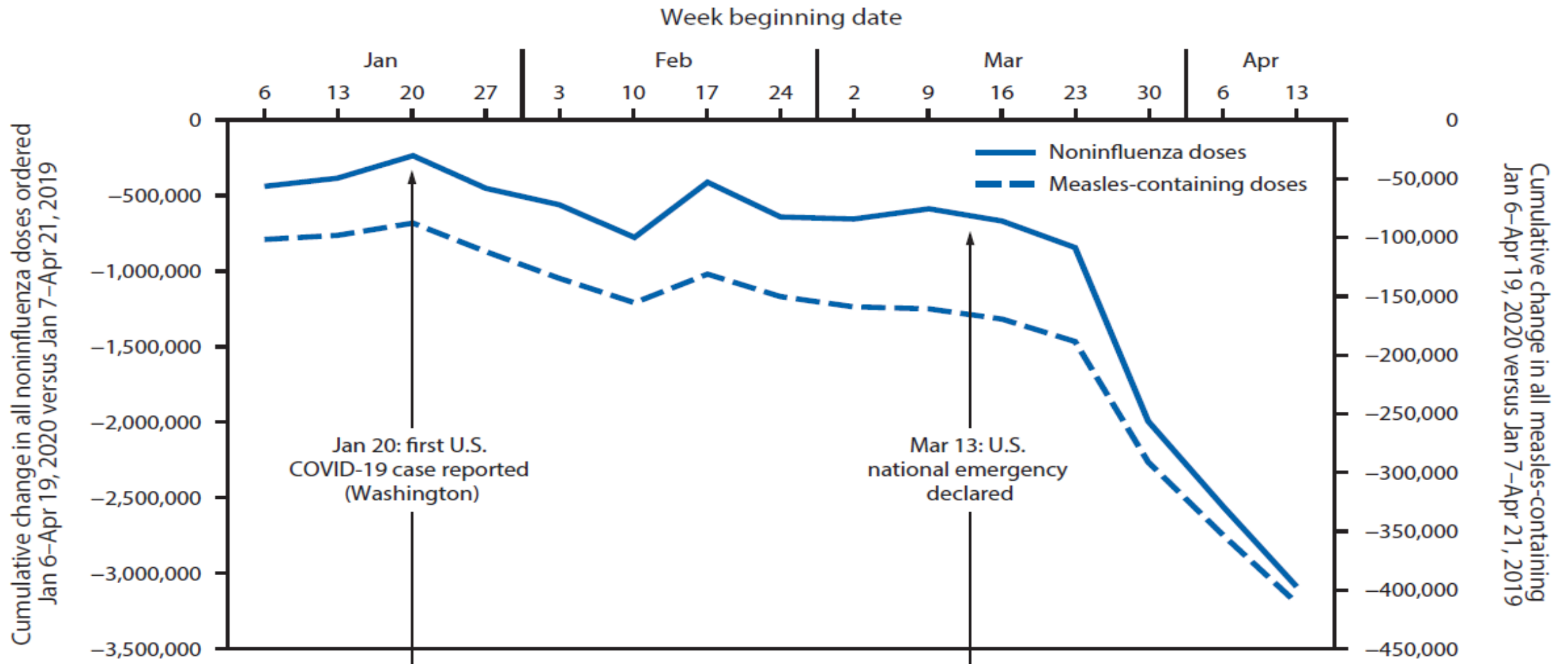
Effects of the COVID-19 Pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020

Weekly / May 15, 2020 / 69(19);591–593

On May 8, 2020, this report was posted online as an MMWR Early Release.

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 ([View author affiliations](#))

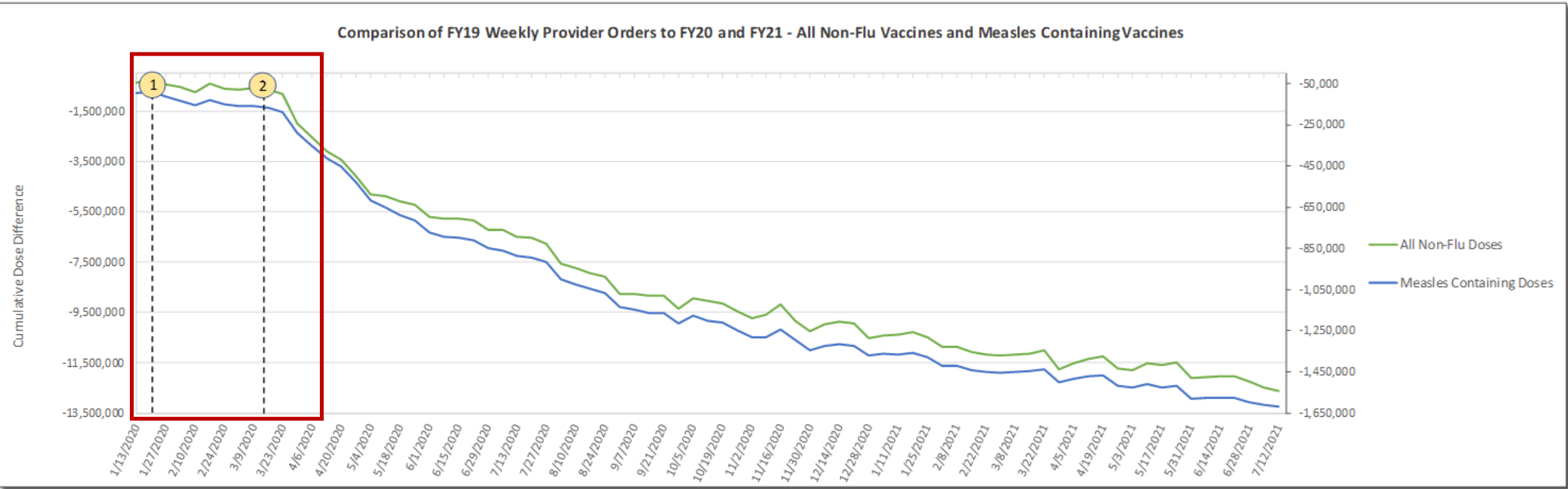
Cumulative differences in VFC vaccine doses ordered – United States, January 6–April 19, 2020 vs. pre-pandemic



* VFC data represent the difference in cumulative doses of VFC-funded noninfluenza and measles-containing vaccines ordered by health care providers at weekly intervals between Jan 7–Apr 21, 2019, and Jan 6–Apr 19, 2020.

Source: Santoli JM, Lindley MC, DeSilva MB, et al. Effects of the COVID-19 pandemic on Routine Pediatric Vaccine Ordering and Administration — United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:591–593. DOI: <http://dx.doi.org/10.15585/mmwr.mm6919e2>

Update: Cumulative differences in VFC vaccine doses ordered – United States, January 2020 through July 2021 vs. pre-pandemic



Notable Dates:

- 1 1/20/2020: First US case reported (Washington state)
- 2 3/13/2020: US national emergency declared

Source: CDC's Vaccine Tracking System (VTrckS); January 2020 through the week beginning July 12, 2021 vs FY2019

Cumulative differences in VFC vaccine doses ordered (cont.)

Overall non-flu vaccine – down **12.6%** (12.6M doses)

Vaccines primarily given to younger children:

- Rotavirus vaccine – down **5.8%**
- PCV13 – down **8.1%**
- DTaP-containing vaccines – down **8.7%**
- **Measles-containing vaccines – down 18.4%**

Vaccines primarily given to adolescents:

- Tdap – down **17.1%**
- HPV – down **18.1%**
- Meningococcal conjugate vaccine – down **11.9%**

*Identifying barriers to routine pediatric
vaccination*

2021 parent focus groups

In early 2021, 12 virtual focus groups conducted with parents who delayed their child's (age 0-6) well-child visits and vaccinations during the pandemic

- Threat of COVID-19 **changed the way parents made and prioritized health-related decisions**
 - Parents consider vaccinations to be **part of their child's routine care**, captured as part of the well-child visit
 - Parents have seen **little to no information about childhood vaccinations this year** from any source
 - Experiences around well-child visits and routine vaccinations were **similar across African American and general population groups**
 - Differences were more pronounced by income
- Attitudes about positive impact and importance of childhood vaccinations remain high, despite the absence of information and the lower priority given during the pandemic
 - **Suggests that after the pandemic, most parents may return to their routine vaccination schedule**
 - As parents return to their pre-COVID norms, many **want their children to get back on the vaccination schedule**, especially as their children begin to socialize with other children and return to in-person school and daycare
 - Parents mainly **rely on the pediatrician's office** to keep them up to date on their child's vaccination schedule, but many also have their own systems to stay organized

VFC provider surveys (May 2020 and March 2021)

- Primary purpose: Assess access by determining operational status and whether pediatric vaccines were being offered
- Samples drawn from CDC's PEAR database
- Strategies to increase vaccine demand assessed in 2021 survey

VFC provider surveys: Operational status

	Currently open	Offering reduced hours	Offering vaccines to all pediatric patients
May 2020 survey (n=1933) ¹	90%	62%	81%
March 2021 survey (n=2352) ²	97%	27%	96%

1 - Source: Vogt TM, Zhang F, Banks M, et al. Provision of Pediatric Immunization Services During the COVID-19 Pandemic: an Assessment of Capacity Among Pediatric Immunization Providers Participating in the Vaccines for Children Program — United States, May 2020. MMWR Morb Mortal Wkly Rep 2020;69:859–863. DOI: <http://dx.doi.org/10.15585/mmwr.mm6927a2>

2- Preliminary results, CDC internal communication

March 2021 VFC provider survey: Results by provider type

Provider type	Currently open	Median % change in non-flu VFC orders 2020 vs. 2018/2019
Overall	97%	-14%
Medical practice (n=1,290)	99%	-9%
Local health department (n=425)	87%	-38%
Federally Qualified Health Center (FQHC)/Rural Health Center (RHC) (n=517)	97%	-21%
Other – e.g., school-based health centers, tribal health, corrections (n=120)	95%	-36%

Smaller practices and practices with a higher proportion of VFC -eligible patients also more likely to be closed and ordering less non -flu VFC vaccine during the pandemic.

Source: Preliminary results, CDC internal communication

March 2021 VFC provider survey: Strategies to increase parent/guardian demand¹

Strategy	% reporting
Unscheduled, walk-in visits	39%
Expanded hours for vaccination	24%
Vaccination-only appointments	83%
Special vaccination clinics inside/outside/off-site	18%/7%/5%
Active comms RE operational status	40%
Active comms RE well-child visits	46%
Active comms RE Medicaid	15%
Active comms RE no-cost vaccines through VFC program	22%
Measures in place to limit risk of SARS-CoV-2 exposure	36%

Source: Preliminary results, CDC internal communication

Survey of school nurses

Methods:

- Covered general pandemic-related health impacts on the school community
- Fielded May/June, 2021, among a convenience sample of National Association of School Nurses members

Results:

- 977 K-12 school nurses participated
- 27% (n=267) reported that fewer students in the 2020-2021 school year were up-to-date with vaccines required for school entry vs. previous years
- 46% (n=448) reported that school-required vaccines were either a somewhat or much lower health priority in the 2020-2021 school year relative to previous years

Concluding thoughts about barriers

- Parents appear to lack information about vaccines and well child visits due
- Fear of exposure to SARS-CoV-2 at a provider office is likely a barrier
- Inadequate access to vaccine providers does not seem to be a major current barrier, except perhaps in areas that rely on Local Health Departments for vaccination services
- Less stringent enforcement of school entry requirement is a concern

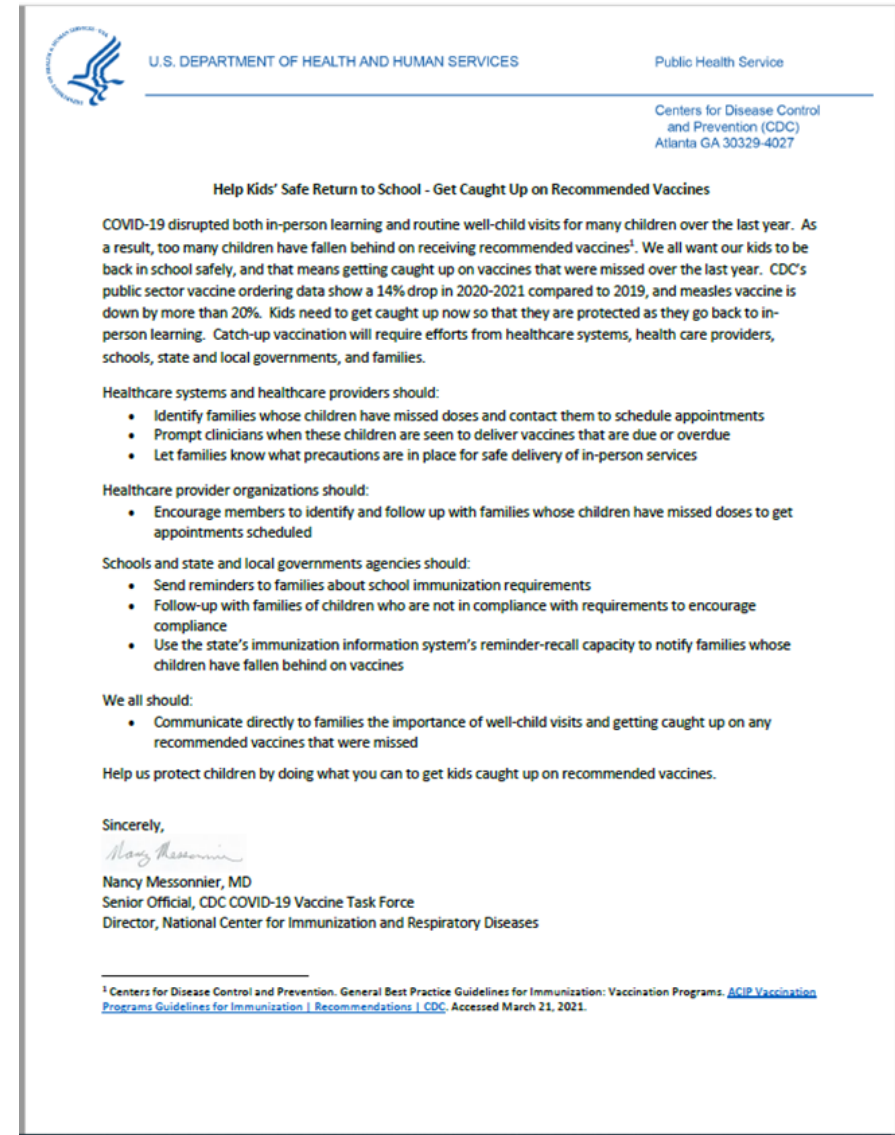
Overcoming barriers

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Call to Action: Urgent Need for Catch Up Vaccination

- Memo from former NCIRD Director, Dr. Nancy Messonnier, published on CDC website and broadly distributed to partners¹
- In a nutshell:
 - Implement reminder/recall
 - Avoid missed opportunities when patients present for care
 - Communicate to families about safety precautions in place
 - Remind families about school entry requirements and follow-up with those out of compliance

Lots to do across many sectors!



1 - "Help Kids' Safe Return to School - Get Caught Up on Recommended Vaccines" <https://www.cdc.gov/vaccines/hcp/clinical-resources/downloads/safe-return-school.pdf>

May 2021 Immunization Awardee Survey (n=48)

Current or planned activities for enhancing pediatric catch-up vaccination (ranked by percentage of awardees reporting them):

- Ensuring school/daycare requirements are met (83%)
- Conducting communication/education campaigns (79%)
- Sharing information about Medicaid and no cost VFC vaccines (65%)
- Implementing reminder/recall (63%)
- Holding school-located vaccination (SLV) clinics (52%)
- Promoting pharmacy vaccination (50%)
- Holding temporary (non-SLV) clinics (33%)

CDC-provided VFC Vaccine Ordering Reports/Tool

- Awardee-specific, county-level ~quarterly reports of non-flu VFC vaccine doses ordered
- Awardee-specific, VFC provider-level non-flu VFC vaccine ordering tool (in preparation)
- Awardees encouraged to:
 - Share reports with partners
 - Use the maps and provider-level tool to identify where technical assistance or support may be beneficial

Updated Routine Childhood Vaccination Resource Center

For Immunization Partners

CDC > Immunization Partners Home > Childhood Immunization Resources

Immunization Partners Home

Vaccinate with Confidence

Resiliency of the US Vaccination System

Childhood Immunization Resources

- Resources for Encouraging Routine Childhood Vaccinations
- Observances and Toolkits
- Multimedia Products for Parents
- Flyers and Posters
- Spanish Materials for Parents
- Resources for Professionals
- Childhood Immunization Coverage

Protein & T-cell Immunization Resources

Adult Immunization Resources

Maternal Immunization Resources

Influenza (Flu) Immunization Resources

Related Links

- Vaccines & Immunizations

Resources for Encouraging Routine Childhood Vaccinations

Background

COVID-19 disrupted both in-person learning and routine well-child visits for many children over the last year. CDC's public sector vaccine ordering data show a 14% drop in 2020-2021 compared to 2019, and measles vaccine ordering is down by more than 20%. CDC's recent [call to action](#) [1 page] outlined the steps that healthcare systems, health care providers, schools, state and local governments, and families can take to encourage catch up vaccination and protect children's health.

As opportunities for in-person learning and play continue to grow, help us protect children by doing what you can to get kids caught up on recommended vaccines.

Web Feature: Catch up on Well Child Visits and Recommended Vaccinations

Use [this web feature](#) as a link in your social media posts, newsletters or other communication.

You may also use or adapt the content for your specific use. Any materials produced by CDC are in the public domain and may be used without attribution.

Additional Resource for Health Care Professionals

[Childhood Vaccination Communication Toolkit for Clinicians](#)

On This Page


- Background
- Social Media Content
- Infographic
- Newsletter template

Social Media Content

Use or customize these messages on your social media platforms to spread the word about childhood immunization in your community.

Twitter Messages

Tweets for Parents: Power to Protect




Help Protect Your Kids with Routine Vaccinations

View Transcript | Low Resolution Video

Power to Protect – Full Animation

CDC and the American Academy of Pediatrics recommend that even during COVID-19, children continue to see their doctor for checkups and routinely recommended vaccinations. #VaccinesWork #CDC

Link: <https://www.cdc.gov/vaccines/parents/visit/vaccination-during-COVID-19.html>



Routine Vaccines Help Protect Me

I'M BETTER PROTECTED

View Transcript | Low Resolution Video

Power to Protect – Simple Animation A

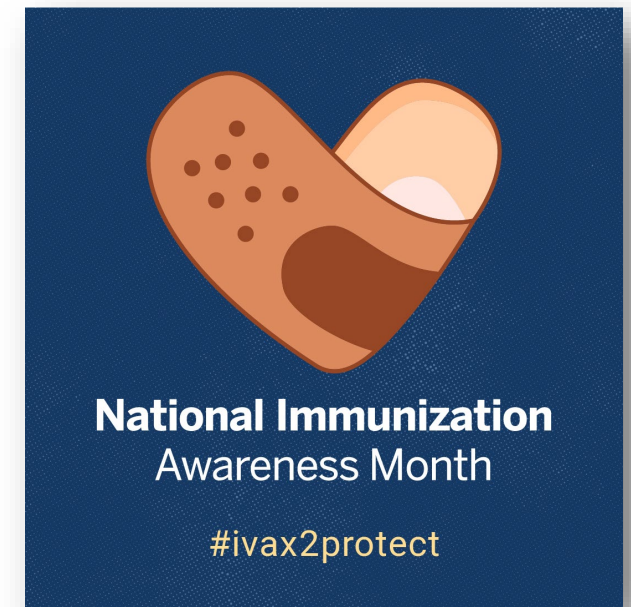
Just a reminder that, even during the pandemic, your pediatrician can safely help protect your children from vaccine-preventable diseases with routinely recommended vaccinations. #VaccinesWork #CDC

Link: <https://www.cdc.gov/vaccines/parents/visit/vaccination-during-COVID-19.html>

Happy National Immunization Awareness Month!

- **Theme:** Get Back on Track with Routine Vaccines
- **NIAM website:**
 - Toolkits for reaching healthcare professionals and parents/patients
 - Sample newsletter content
 - Graphics

<https://www.cdc.gov/vaccines/events/niam/index.html>



Conclusion: The need for catch-up vaccination is **urgent**

- Many school-aged children missed recommended vaccines over the last year due to COVID-19-related disruptions
 - Measles and adolescent vaccines are especially concerning
 - Let's not forget about flu vaccination!
- If/when COVID-19 vaccine is available for children younger than 12, we want them to already be caught up on other recommended vaccines
- We need to get children caught up **now** on vaccine doses they missed!

Acknowledgements

- Dr. Melinda Wharton, Director, Immunization Services Division, CDC
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Thank you



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

