Maternal RSV Vaccine Preparedness

Quality and Innovation Collective (QuIC)

Phase 3 Meeting Summary | October 8-9, 2024

Phase 3 Meeting Summary

With the 2024 RSV season underway, healthcare organizations (HCOs) participating in the AMGA Maternal RSV Quality and Innovation Collective (QuIC) gathered in Baltimore for two days of expert presentations, panel discussions, walk-and-talk breakouts, and more. Building upon Phase 1 and Phase 2 virtual meetings, and months of work and best practice sharing, Phase 3 represented an opportunity to meet in person for the final stage of the QuIC, when HCOs discussed insights and strategies as well as how they were progressing in the second season of the maternal RSV vaccine.

"It's a jam-packed agenda, but we think it's going to be very exciting and interactive," said Danielle Casanova, MBA, vice president, Population Health Initiatives and Health Equity, at AMGA. "Please use this time to engage, participate in the discussions, and ask questions so you can learn from each other and take your learnings back to your organizations."

QuIC Framework

Maternal RSV QuIC Participants

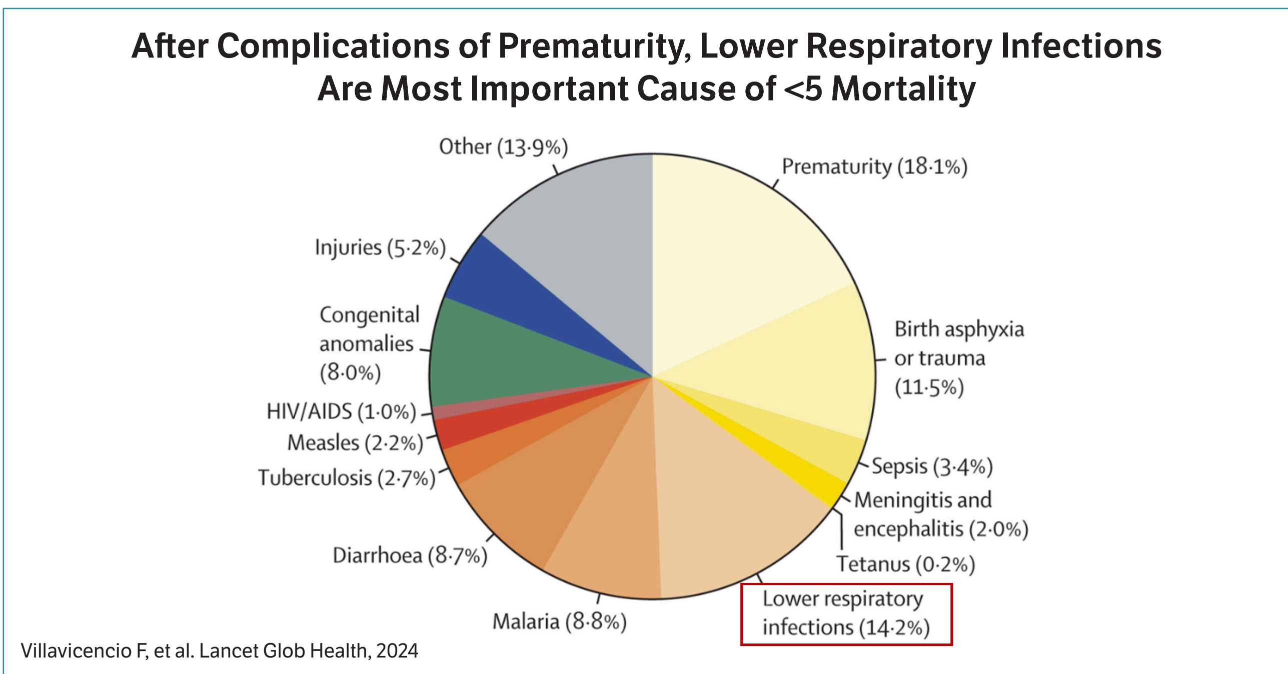
- Advocate Aurora Medical Group
- The Everett Clinic and Polyclinic, part of Optum
- Inova
- Lehigh Valley Physician Group
- Northwell Health
- Olmstead Medical Center
- Oregon Health & Science University, School of Medicine
- Shannon Health System
- Valley Health System
- Vanderbilt University Medical Center

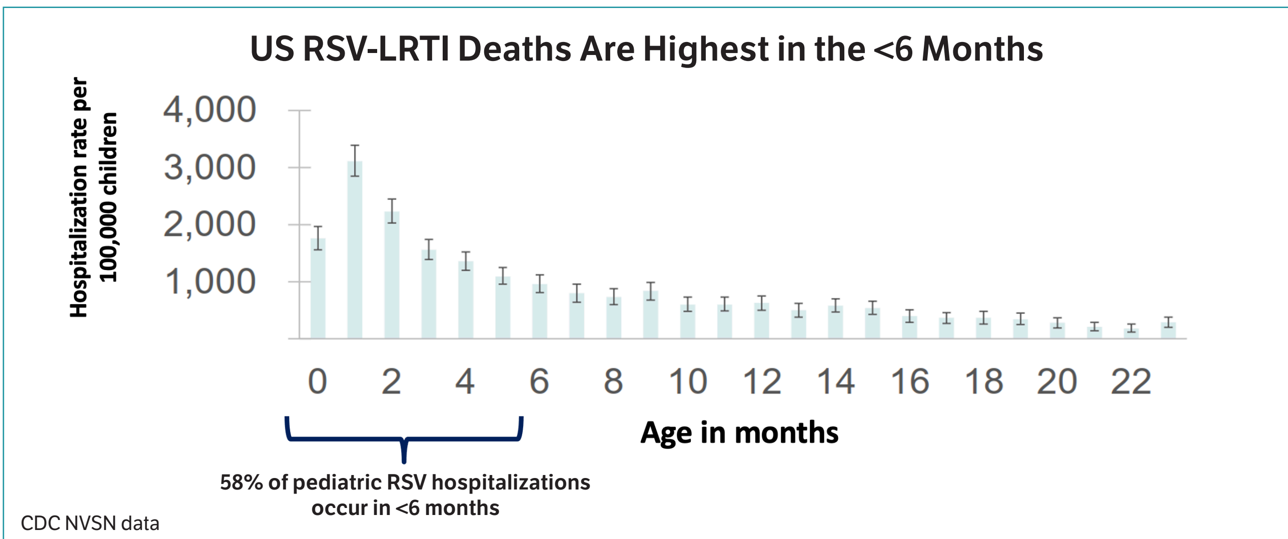
The Impact of Early Childhood RSV Disease and Prevention

Justin R. Ortiz, MD, MS, *Professor, Department of Medicine Scientist, Center for Vaccine Development and Global Health University of Maryland School of Medicine*

Ortiz, a vaccine researcher and developer, began his session with research illustrating the need to reduce RSV risk in infants six months or younger.

"Over the last two decades, there has been no improvement in the statistics," he said. "Unfortunately, one in five infants hospitalized with RSV goes to an ICU." Given these statistics and RSV's association with other respiratory tract infections, "RSV vaccination is a public health need," Ortiz declared.





He walked through the three preventative measures that currently exist for young children—the American College of Obstetricians and Gynecologists (ACOG)-recommended ABRYSVO vaccine for pregnant people, the new nirsevimab monoclonal antibody for infants, and palivizumab, another monoclonal antibody that the American Academy of Pediatrics (AAP) recommends when nirsevimab is not available.

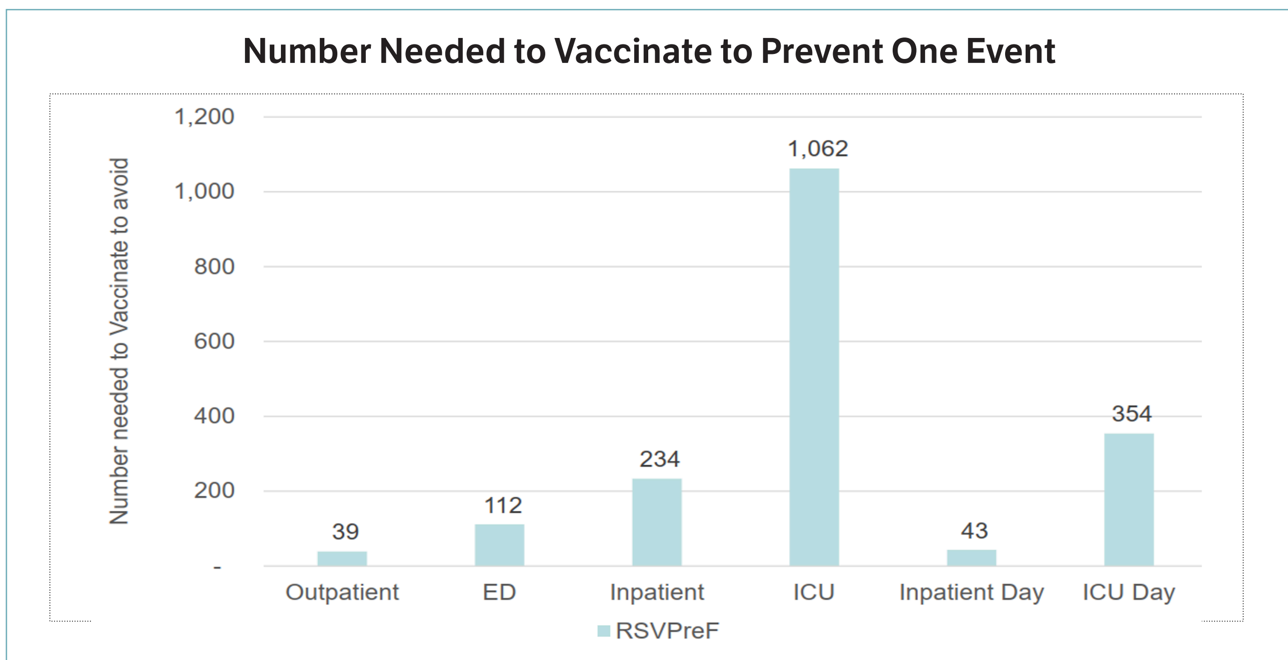
While a number of vaccines are in the development pipeline, representing a variety of approaches (live attenuated/chimeric, protein-based, nucleic acid, recombinant vectors, and immune-prophylaxis), current offerings have their limitations, he explained. No vaccine offers protection beyond six months, for example, and no pediatric vaccine has been licensed with active immunity.

Importantly, current products will not block transmission. "The cocooning concept seen in vaccinations like pertussis won't work for RSV. You can't vaccinate everyone in the household, given what we believe about transmission," Ortiz said. "Don't expect herd protection."

For any vaccine to work, he reminded the audience, it must first be administered, and the discussion moved to the topic of vaccine adoption—an area where much work remains to be done.

A study of Centers for Disease Control and Prevention (CDC) data revealed vaccine coverage among pregnant patients to be less than half for influenza (47.4%) and fewer than 6 out of 10 for Tdap (59.6%).[1] Narrowing in on maternal RSV (mRSV) vaccination, rates have risen during the most recent RSV season compared to the previous year but are still low, at just over 18% at the end of September.[2] Ortiz also pointed out that Black, Hispanic/Latino, and other minority populations have lower-than-average RSV vaccine coverage.

He followed with data underscoring the need to increase these rates—specifically the number of RSV vaccines needed to prevent emergency department and ICU visits, hospitalization days, and other healthcare events. "To observe changes, you need high coverage," he concluded. "More efforts are needed to increase coverage and address inequities."



Summary of Hutton ACIP Slides

RSV Events	Illnesses Averted per 1000 <1 year	Number Needed to Vaccinate to Prevent One Event
Outpatient	12.9	39
ED	4.5	112
Inpatient	2.1	234
ICU	0.5	1,062
Inpatient Day	11.6	43
ICU Day	1.4	354

Assuming 50% coverage, 50% effectiveness
Does not include 2nd year of life and non-RSV-LRTI outcomes

The participants discussed current research and ways to measure the efficacy and effectiveness of RSV vaccines, particularly as related to risk reduction and public health impact.

For newer vaccines, it's a challenge, Ortiz admitted. "If you're looking at a population or looking at your EHR [electronic health record], you're looking at very low numbers, and it's hard to find a statistically meaningful difference between two groups," he said. Observational studies that are typically conducted need to be massive, and for this reason, most studies of the RSV vaccine's impact are modeling studies at this point.

"The best way to get at this is in an oblique way," he suggested, "with a vaccine of known efficacy in a condition of known prevalence. Randomize a massive amount of people with exposure and none. Come back years later and see who has RSV and who doesn't," he said.

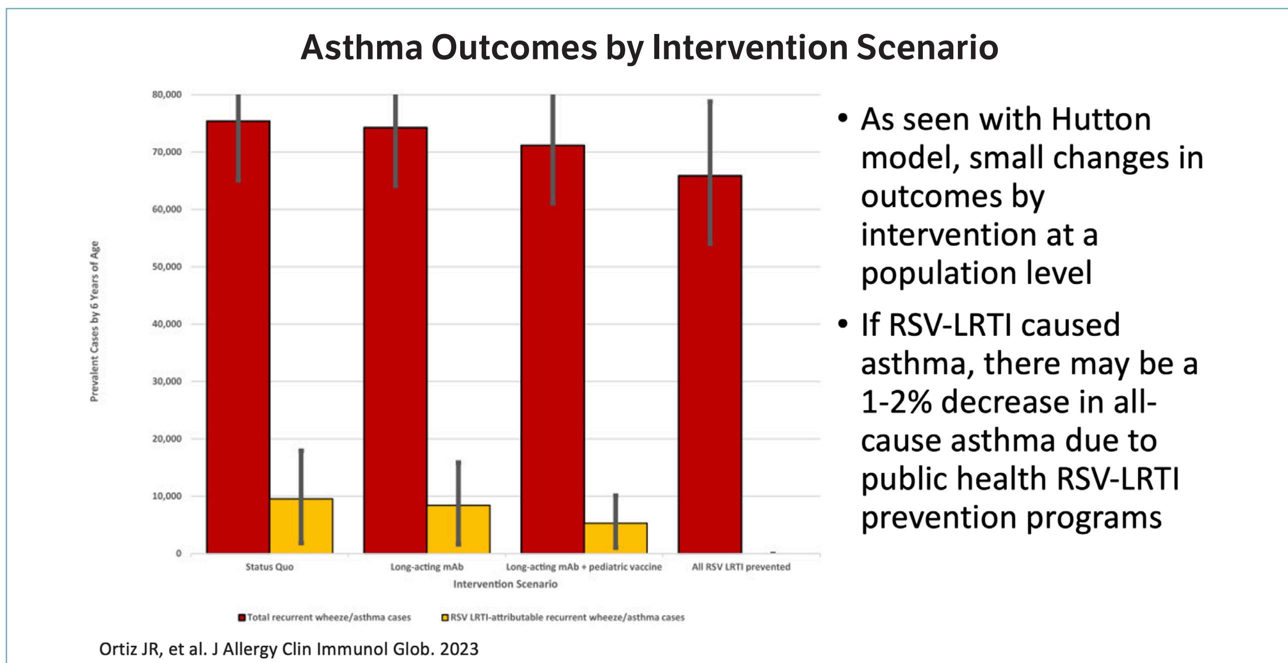
Yet even such broad longitudinal studies can be "tricky and challenging," he said, citing flu as an example. Flu vaccine coverage in children has risen over the past 20 years, yet broad data on flu prevalence show little decrease in cases.

One suggestion: Narrow the aperture of the study. Ortiz illustrated his point with research related to rotavirus vaccination. A look at all deaths related to diarrhea didn't show the impact of the rotavirus vaccine. Narrow the aperture to deaths in rotavirus patients, however, and "you see a tremendous change," he said.

Specific to RSV prevention, studies have been emerging, mostly in Europe, showing the effectiveness of nirsevimab, Ortiz replied. Organizations could extrapolate these findings to RSV vaccines, as the efficacy and durability are similar, he explained. But further insights will take time.

Ortiz also walked through highlights from his work on RSV initiatives in Mali. The West African nation has high rates of early childhood RSV long-term respiratory infection (LTRI) and asthma, a chronic inflammatory disease with rising global

prevalence. His team modeled the impact of the monoclonal antibody and observed a roughly 20% decline in RSV-LTRI events with routine RSV prevention programs, along with small changes in asthma outcomes by intervention at the population level.[3]



Maternal RSV Implementation: Insights and Strategies, Part 1

The Polyclinic (Part of Optum), Olmsted Medical Center, Oregon Health & Science University (OHSU), Shannon Health System, Valley Medical Group

Moderator: **John Kennedy, MD**, *President, AMGA Foundation, and Chief Medical Officer, AMGA*

In the first of two panel discussions, five participating HCOs shared highlights from their maternal RSV rollouts so far, advances from last year, and tips for success. These tips were developed as HCOs reviewed their own data to assess performance and identify who is being missed to ensure capture.

Olmstead Medical Center talked about engaging pharmacists in policy development and staff education, educating patients via one-page fact sheets patients have proactively brought to appointments, and adding technology—or not—based on workflow.

Pharmacists can play a pivotal role in educating pregnant patients on relevant vaccines, make strong recommendations for their use, and administer the vaccines as appropriate. Pharmacists are also in a unique position to engage the patient's prenatal care provider and discuss the importance of RSV vaccination for pregnant patients.

Olmstead's goal is for the mRSV vaccine to become "a routine part of the process, similar to Tdap," at the 32-week appointment, said OB/GYN Department Chair Natalie Braun, MD. The HCO is also aiming for outreach in languages

other than English for the HCO's Hispanic and Somali patients. Their tip for success: Reach clinical and nursing staff early with thoughtfully created reports and materials that share the same accurate facts.

Shannon Health System noted several lessons learned since last year, starting with discovering the link between maternal and child charts in Epic. "This will help pediatricians guide their conversations on vaccines," said Director of Women's and Children's Health Dana Bell.

Meanwhile, best practice alerts went live in Epic on September 1. "We hope this keeps the RSV vaccine top of mind for clinical staff," Bell said, adding that the electronic medical record (EMR) team is currently working on another mRSV alert that will go out directly to patients through MyChart.

The ultimate goal is for patients to come in and ask about the vaccine, as they do with Tdap, rather than rely on nurses and physicians to bring it up in conversation.

Valley Medical Group reported that "one thing we did well is we made the maternal RSV vaccine a priority and provided clear communication about its availability," according to Jennifer Amorosa, MD, a physician with the organization's maternal fetal medicine department.

Pregnant patients learn about the vaccine at their intake and third trimester appointments, and care teams learn through systemwide communications, including weekly meetings, grand rounds, and strong partnerships with service line leadership. Throughout the organization, practice managers are empowered to order what's needed and providers are encouraged to talk about vaccination opportunities and resources, such as vaccine clinics.

Amorosa cited "good uptick" thus far, with continued internal promotion and improvements in external marketing planned for the weeks ahead, along with a new "to do" button in its EMR's Health Maintenance topic.

The Polyclinic's top priorities include maintaining a consistent vaccine supply, according to Joanna Zhou, MD, MPH, with the OB/GYN department.

She noted that standardized vaccination schedule, ongoing education, and robust communication have helped with vaccine availability issues. "We're educating the back-office staff on what and when, making sure RA staff know that patients will be expecting it, and talking to patients ahead of time with reminders," she said. "Pediatricians were good about communicating availability with us, which allowed us to vaccinate more patients."

OHSU advised participants to start planning early. After some delays and catchup, real-time understanding of vaccine availability across locations has been helpful, noted Lisa Bayer, MD, MPH, an associate professor and OB/GYN medical director at the Center for Women's Health.

OHSU's size and siloed structure pose challenges to such integration, according to Moira K. Ray, MD, MPH, an associate professor and associate director of quality for family medicine. "We work in a really big setting, so what we have access to and control over is really tricky." Nevertheless, a multidisciplinary team representing OB/GYN, pediatrics, family medicine, pharmacy, and the communications department has centralized, standardized, and streamlined vaccine information, for both internal and external audiences.

"Last year I felt like we were constantly looking for resources and doing a lot of the provider education. This year feels a lot calmer," Bayer said. Epic enhancements are on her wish list, specifically those related to vaccine declination. "That level of communication would be great."

The audience Q&A that followed explored this topic further. OHSU currently uses a "pink sticky note" in Epic with an empty field for entering "dec" for declined or "x" for vaccinated and also addresses declination in the pregnancy checklist. At Shannon Health System, declination is marked in Health Maintenance and on an immunization tab in Epic, where a link between parent and child records lets the care team see if the vaccine was declined during pregnancy.

Danessa Sandmann from Epic offered further suggestions. Use a diagnostic code or other nomenclature that can be used and transferred between care providers. Store this information in smart documentation at the patient level. "Pre-visit questionnaires can be built into the rule-based engine," she pointed out.

She noted that links between pregnant patient and child records are standard if the child's delivery is recorded through the Epic toolset. "There are lots of functionalities and possibilities to support this," she said. She also called out links to Healthy Planet, a module for population health management and accountable care, and Community Connect, which allows an HCO with Epic to share data with organizations and providers who do not have it.

Q&A

How are you integrating pharmacists into the process?

At Olmstead, "it was pretty seamless. They were the ones on top of it all and the driving force," said Braun, from protocol design and getting approval from the appropriate leadership teams.

How are you measuring your progress, and what are you seeking to improve?

For some groups, last year's RSV data provide the benchmark; others are comparing progress to other vaccines such as flu and COVID. Participants identified cultural understanding, disparities, and resource allocation as improvement areas moving forward.

One HCO noted under-vaccination among Southeast Asian patients and has added filters into their EMR for language and other demographic factors. Another challenge cited was weighing resource allocation decisions amid a large Amish and homeschooling community who choose not to vaccinate—and likely never will. "We want to target those who are willing who we're currently missing."

Maternal RSV Implementation: Insights and Strategies, Part 2

Advocate Health Care and Aurora Health Care, part of Advocate Health, Lehigh Valley Health Network (LVHN), Northwell Health, Vanderbilt University Medical Center

Moderator: **Sarah Pugh, PhD, MPH**, *US Medical and Scientific Affairs, Maternal Immunization Lead (RSV & GBS), Pfizer, Inc*

As **Advocate Health** looks ahead to its second RSV season, one big challenge from 2023—insurance coverage—has been resolved, according to Megan Pignatari, MSN, RNC-OB, C-ONQS, a perinatal program specialist with the HCO's women's service line. "Now patients are asking us about the vaccine."

For this year's rollout, she said, "One of the first successes was ensuring we had a vaccine champion." She called out the work of the women's service line and Meg Kim, MSN, RN, CNOR, who is clinical director of vaccine operations. "All of the education they provided to us was a beacon of light."

With vaccine champions in place, implementation was a systemwide effort, Pignatari and Kim said. Advocate integrated ABRYSVO into standing order agenda items and reinforced vaccine education through monthly check-ins, leadership meetings, and meetings of Advocate's quality council. The mission: Integrate maternal RSV vaccinations into the standard of care, distribute accountability across leadership, and ensure consistency in messaging and equitable coverage.

On the technology side, Advocate's IT team built a storyboard alert for high-risk pregnant patients and a passive best practices alert recommending ABRYSVO. "When you hover over it, you see the detail," Kim said. "Just click accept, and the order is generated."

Advocate Health

Leveraging EMR

- Inpatient Storyboard Alert for high-risk moms

TC
Crosby, Test
Female, 23 year old, 12/15/2000
MRN: 126046
Bed: CMC LDR-2120-E1
Code: Prior (no ACP docs)
Search
Abrysvo RSV vaccine recommended

Important (1)

Abrysvo RSV vaccine recommended for your patient.

- At least 14 days are needed from the time of maternal vaccination for development and transplacental transfer of maternal antibodies to protect the infant.
- If this patient is likely to deliver prior to 14 days after vaccination, vaccination is **not** recommended.

Order | Do Not Order | **respiratory syncytial virus (ABRYSVO) vaccine**

Accept | Dismiss

Advocate Health Care | Aurora Health Care | Now part of ADVOCATEHEALTH

Links across records give infant care teams visibility into parent vaccinations, and more linkages across health maintenance topics are in the works—"to make sure we're not giving a baby a vaccination that's not needed," Kim said.

Teams in ambulatory care are equipped to room patients and go over care gaps at the beginning of each patient visit. Kim called this set-up "really the best-case scenario possible," saying, "This is where we want to be—utilizing Epic, maximizing capability, and hardwiring it into our work setting."

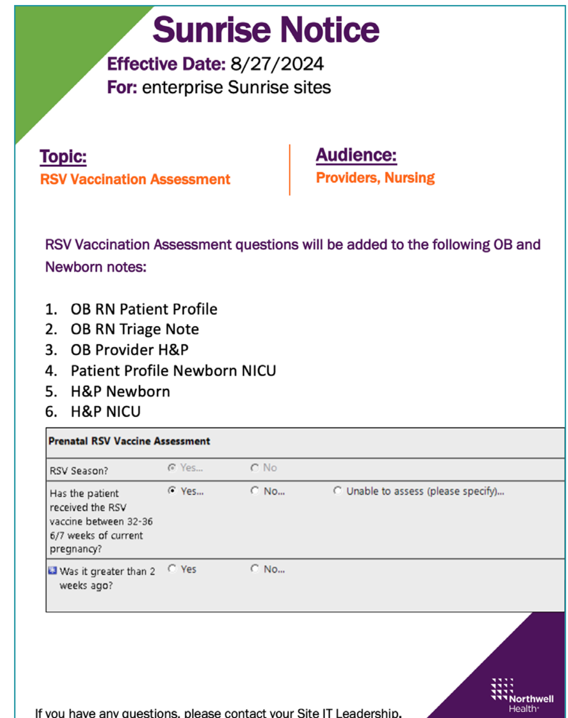
In **LVHN's** vaccination efforts, vaccine champions play an instrumental role educating clinical staff, getting vaccination accounts set up in all offices, and handling operations for vaccine implementation.

The team has seen "good turnaround" so far, according to Karina M. Reed, MD, chief of the Division of Ambulatory OBGYN and a practice leader.

In the works are a dashboard for tracking progress across eligible patients and a policy to allow vaccines to be ordered and administered by nursing staff and medical assistants, drawing from similar policies for flu and Tdap. "Then patients can have something done while waiting for providers to come in," Reed said.

AMGA Quality and Innovation Collective (QuIC)

Maternal RSV Vaccine Preparedness



Sunrise Notice

Effective Date: 8/27/2024
For: enterprise Sunrise sites

Topic: RSV Vaccination Assessment

Audience: Providers, Nursing

RSV Vaccination Assessment questions will be added to the following OB and Newborn notes:

1. OB RN Patient Profile
2. OB RN Triage Note
3. OB Provider H&P
4. Patient Profile Newborn NICU
5. H&P Newborn
6. H&P NICU

Prenatal RSV Vaccine Assessment			
RSV Season?	Yes...	No	
Has the patient received the RSV vaccine between 32-36 6/7 weeks of current pregnancy?	Yes...	No...	Unable to assess (please specify)...
Was it greater than 2 weeks ago?	Yes	No...	

If you have any questions, please contact your Site IT Leadership.

Northwell Health

At **Northwell Health**, "evidence-based communication, both written and verbal" and "consistent reinforcement" have been pivotal to this year's rollout. The team is using materials from organizations including the American College of Obstetricians and Gynecologists and the New York State Departments of Health, and leveraging channels such as grand rounds and weekly leadership and safety calls, along with reminder emails about the importance of offering the vaccine to pregnant patients.

There's a concentrated focus on ambulatory care throughout. "My role in ambulatory care is to partner with pharmacies and suppliers to make sure our practices can order vaccines," said Director of Clinical Care and OB/GYN Jennifer Cuevo, RN, MSN. "I provide information on ordering, how doses are supplied, and answer questions so there are no barriers."

In Northwell's hospitals, a seasonally activated triage and NICU note prompts inpatient care teams to ask about RSV vaccinations.

Yet the team faces technological obstacles as well. With five different EMRs, for instance, "data are not readily available, and communication is very disjointed, as you can imagine," Cuevo said.

Cuevo said that she hopes that an upcoming move to Epic will improve the situation. "We've very much looking forward to an integrated system for pulling in data in real time and seeing what we're lacking."

At **Vanderbilt**, mRSV vaccination is currently live across 21 clinics and 6 hospitals, according to Tara A. Nielsen, DO, MPH, FACOG, assistant professor OB/GYN, Women's Outpatient Quality.

An early start and widespread education, from bulk English and Spanish messaging to standing meetings with staff, have been key to success. In addition, administering the vaccine to all patients at 32-36 weeks of pregnancy "was huge," Nielsen said, from a population health standpoint and for preserving beds. "There's been no declination from payers. That's been great overall."

The team has faced a few challenges so far: Navigating recent CDC guidance about subsequent pregnancies, tracking trends and missed opportunities in a more granular fashion, and increasing adoption overall. "We thought the numbers would be similar to those for Tdap," Nielsen said.

Next year's plans include "standardizing prenatal care, so the numbers might improve," she said. She noted that the past two seasons "have yielded lots of new ideas and we've learned a lot."

Q&A

Given the complicated nature of the recommendations and rollout, have you been maintaining cross-disciplinary meetings or grand rounds?

Advocate is "still having meetings," Pignatari said, and adding RSV vaccination as an agenda item to existing discussions to save time. But the topics have changed. While in season one, challenges involved vaccine hesitancy and insurance denials, season two conversations have been more about the timing of various activities.

Kim talked about how Advocate "cascades information" for all vaccines and how this year's RSV guidance—updated recommendations for adults 60+, a single lifetime dose for pregnant patients—underscored the need to be flexible and adapt. "We want to be able to be nimble and quickly make these changes."

To navigate supply shortages of nirsevimab, an overhaul of its OB department, and other competing demands, Vanderbilt is conducting regular meetings "to make sure everything's flowing appropriately," said Amy Cadoret, MHA, MSN, associate nursing officer, Women's Health. Given the siloed nature of the organization, "those meetings are invaluable. They help me know what things need to be on my agenda and what I need to talk about and help us bridge the communications gaps."

What recommendations do you have for other organizations?

"Resource utilization is critical in all settings," said Kim. Remove duplicate work. Consolidate outreach efforts, like creating educational flyers, into one source rather than having every market do their own thing.

"Use the resources available to you," Nielson said, citing CDC Epic forms that are available in more than 20 languages. "Educate yourself. Empower your team. Remember just how valuable the individual clinician provider relationship is. When your patient walks in, they trust you."

Leveraging the EHR for Maternal RSV

Danessa Sandmann, MPH, *Operations, Epic Research and Public Health Initiatives*

Many participating HCOs have been using Epic in their RSV vaccination initiatives. Sandmann talked about different ways the EHR can support patients and care teams in their efforts, starting with MyChart.

Pregnant patients typically begin engagement with this patient portal and use it throughout their pregnancy, Sandmann explained. The many prescheduled visits pregnant patients have with their healthcare providers create opportunities for sharing vaccine information—before, during, and after the visit.

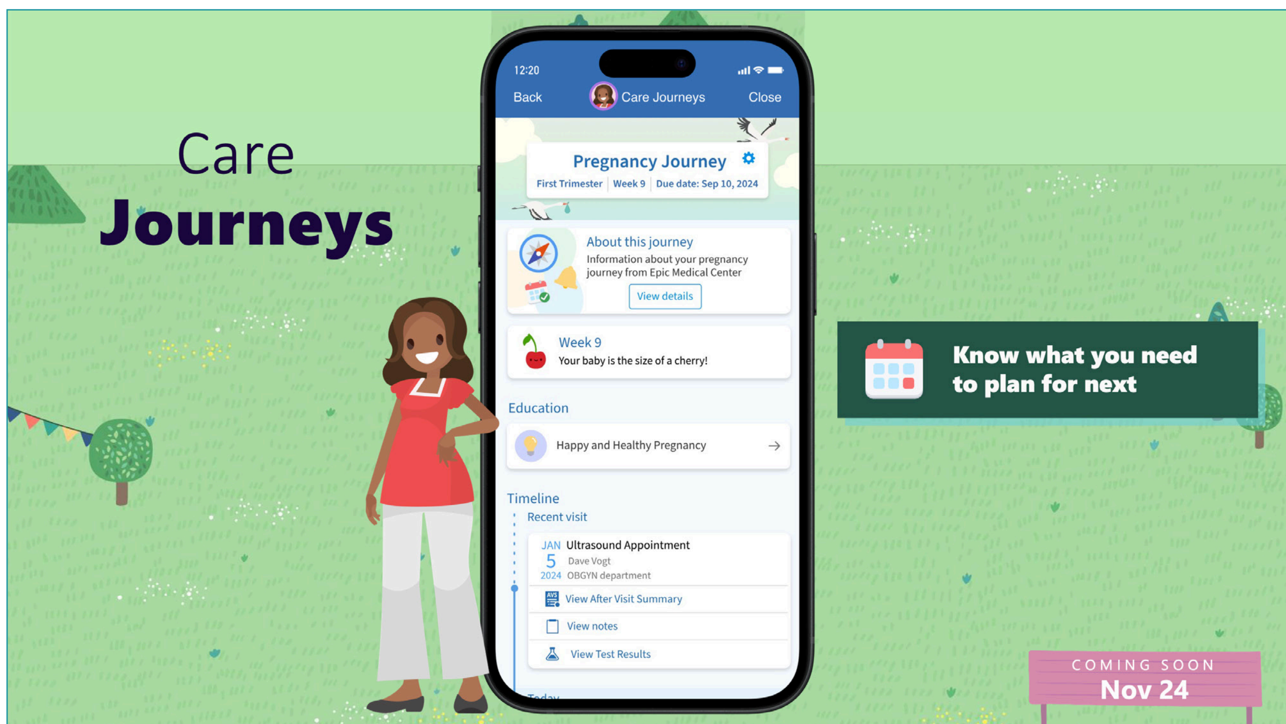
"You can promote your service lines, sites, and classes here, conduct ongoing communications, incorporate remote monitoring—it's a one-stop shop," she said.

Another powerful feature is Epic's Health Maintenance engine, which can support immunizations across the patient lifecycle. For care gap identification, Sandmann pointed out that HCOs have the option to display this information in a sidebar in the storyboard, instead of through the pop-ups that many care teams find distracting. "That's the direction the system is being designed around," she said, making it easy for providers to see what's needed now, what's needed later, and what's not needed, then take the appropriate action in a streamlined fashion.

For getting patients into the clinic for vaccinations, HCOs can use Epic for automated outreach, sending out appointment reminders in a patient's preferred mode of communication. This can be done without having to go through the Campaigns module and with the ability to track success rates, Sandmann noted. She also called attention to Epic's Hello World feature, introduced in September, which sends notifications, reminders, and other text-message communications from the Epic platform to patients' phones.

Finally, Epic can accommodate the claims data and vaccine information HCOs are required to report to state registries. This is helpful for data consolidation if a patient visits an outside clinic, Sandmann said. “There’s a lot of flexibility for supporting providers.”

Looking ahead to the next RSV season, Sandmann talked about what’s next. The new Care Journey application recently launched, and Epic is also working with the CDC to create a new code for vaccine education separate from the existing one for vaccine administration. “We’re finding out that providers are spending a lot of time on patient education that might not result in a vaccination,” she noted.



Sandmann shared tips specific to mRSV vaccination. Make care gaps available and actionable in MyChart. This increases visibility of vaccine opportunities within adult and infant charts and drives reporting. Be sure to document patient eligibility on the vaccine order, as some pharmacies will require this information. And use Epic’s SlicerDicer tool to understand the local population demographics and identify eligible patients for outreach campaigns.

Finally, she walked through the Cosmos dataset, which compiles de-identified patient information from multiple Epic customers and makes it available for participating organizations for research and analysis. “You could see vaccine rates for a given month: overall vs. your organization,” Sandmann said, noting that data are updated every two weeks.

Q&A

We recently launched Care Companion—how will this interface with the upcoming Care Journey application?

Care Journey is built on the Care Companion framework as a pregnancy-specific journey, Sandmann explained. “You should be able to reuse a lot of the information that’s been created,” she reassured a participant with multiple existing Care Companion applications related to diabetes.

Automatic ordering of services like vaccines and mammograms is available "depending on how you configure it," Sandmann added. "You can choose which specialties within each Health Maintenance topic."

Given the waiting periods for Clinical Decision Support for Immunization (CDSi) releases and AHIP guidelines, then the time needed for IT configurations, it can take months to get a new Health Maintenance topic in Epic. Are any efforts in the works to shorten this timeframe?

"We've shared these challenges with the CDC, and they recognize that this timing isn't ideal," Sandmann said. Her recommendation in the meantime: "Educate and prepare organizations to make the update in their own environment."

Panel Discussion on Shared Decision-Making

Christopher J. Russo, MD MBA CPE FAAP, *Director of Pediatrics, Women and Children Services Medical Director for Quality and Innovation, WellSpan Health*

Raminder Kaur Khangura, MD, MS, *Maternal Fetal Medicine Specialist | Women's Health Services, Henry Ford Health System*

Moderator: **John Kennedy, MD**, *Chief Medical Officer, AMGA, and President, AMGA Foundation*

How do you initiate shared decision-making with patients?

Henry Ford has preliminary conversations about vaccine eligibility during rooming, according to Khangura, when medical assistants take a patient's vitals. This is helpful "if they're on the fence," she said, adding that sending information in advance could help even more as patients would have the opportunity to discuss vaccination with family and other people in their lives.

WellSpan has been sending RSV education to patients via Epic, MyWellSpan, and text messages before their appointments, with a call to action like "talk about this with your OB" or "your OB can help you schedule a vaccination." Because visits are so short, Russo noted, it's important to move activities that can be moved elsewhere and maximize this time.

How do you handle the maternal RSV vaccine's unique timeframe requirements?

WellSpan adjusts its marketing to align with the RSV season, Russo said. Taking about vaccination "off season," he noted, "doesn't have that resonance."

To educate patients about the 32-week through 36-week pregnancy window, "we give the patient information about the window and why it's important to build up as much immunity as possible," Khangura said. Ideally, it should be "a no-brainer or reflex to talk about it at 28 weeks," she said, "like we do for Tdap."

What kind of patient conversations have you been having related to the CDC's determination that if a patient has already received a maternal RSV vaccine during any previous pregnancy, the CDC does not currently recommend administering another dose of RSV vaccine during subsequent pregnancies? Instead, the baby should receive nirsevimab.

At Henry Ford, conversations have focused on documentation—has the pregnant patient been vaccinated before or not? "Everyone wants proof," Khangura said. "If a patient delivered outside of the system, we try to start these conversations early, so there's time to hunt these records down."

Russo encouraged participants to see such conversations as an opportunity to strengthen education about how vaccines work and that they're coming from a trusted source that prioritizes patient health and safety.

What measures are you taking to counter vaccine hesitancy?

WellSpan has "a robust community health team who's gone out to understand the roots of vaccine mistrust," according to Russo, and gets the word out via venues like community health fairs. "We've learned early on that patients want to hear messages coming from people in their community, outside of the office."

Khangura noted the need to have "healthcare providers who look like our patients." She emphasized the importance of "complete informed consent" and addressing issues such as increased risk of early delivery early on. "More information up front is better than patients finding it on the internet later on."

Russo said he actively encourages conversations with patients on where they find vaccine information and "hammers home" statistics illustrating the risks and benefits.

Both WellSpan and Henry Ford use handouts for patient education, supplemented by a growing array of messengers and channels. These include fun video snippets on social media ("people don't watch TV anymore," Khangura noted) and frontline office staff trained to talk about vaccine safety and efficacy. "It's very important to include them," Russo said.

How have you been making information accessible—accommodating different languages, reading levels, and cultural differences, for example?

WellSpan, whose main hospital has recently seen an influx of patients from Haiti, encourages pre-visit briefings with interpreters and an environment that welcomes questions, Russo said.

Henry Ford similarly encourages active interpreter engagement and "teach-backs." Khangura pointed out that many languages, such as Arabic, have multiple dialects, and that patients who don't speak English as a first language can be timid during visits for cultural reasons. "The doctor is like a godlike person, so they're afraid to say they don't understand something."

Members of the audience stressed the importance of culturally and linguistically appropriate interpretation, saying, "There are so many nuances in language." It's important to teach staff (phone translator apps often fail to capture these nuances), tap external resources (the CDC offers information in more than 20 languages, for example), and use videos to overcome barriers in language and literacy.

How have you been bringing communications and documentation together across departments and platforms?

"For outpatients, we've hardwired querying the vaccine registry as part of the rooming process and standard work," Russo said. "On the inpatient side, we have the ability to query a mother's chart. It's linked to the newborns. I can query both right there from the same session."

Khangura talked about the "many nuances" of technology use and adoption across care team members. Notes on patient visits can range from a quick "doing well" to "beautiful novels on what happened." She's also observed that many postpartum nurses prefer to use a quick sheet—a template that includes all necessary documentation for efficiently recording treatment plans in a compliant manner—and that pediatric doctors will often add their own notes to the system, even if some redundancy results. "There's a sense of responsibility," she said.

Any final thoughts and recommendations?

Khangura emphasized the importance of education, "anytime, anyhow" vaccination access, and continual learning. Rethink ways to connect with patients and providers, she advised. "What we may have done in the past may not necessarily work for what's coming up."

Be persistent and patient with vaccine hesitancy. "It's easy to just write that off instead of saying 'would you think about that?' Leave the door open," she said. "Give patients things to read. Tell them they can think about it, and we can talk about it next time."

Russo emphasized the importance of a multidisciplinary approach that underscores the importance of vaccination, so it's not "just one more thing to do."

Keep communication and education short, make sure it's relevant, and deliver guidance directly when possible, he said, noting that "I recommend it" often strikes patients as more relevant than "something coming from nameless faceless external body." Finally, have conversations about vaccination at every visit. "Just because they don't want the vaccine today doesn't' mean they won't accept it tomorrow."

Understanding Disparities, Barriers, and Facilitators to Maternal Immunization

Andreea A. Creanga, MD, PhD, *Professor, Department of International Health & Department of Gynecology and Obstetrics, and Director, Maryland Maternal Health Innovation Program, Associate Director, International Center for Maternal and Newborn Health, Johns Hopkins University*

"The success of any vaccine depends on its uptake," said Creanga, setting the stage for her presentation on barriers to immunization for mRSV and other conditions. "Programs struggle because vaccine acceptance is a complex decision process affected by many, many factors."

The World Health Organization groups these factors into "the 5 Cs":

- **Complacency**: Do I really need the vaccine?
- **Confidence**: How effective is the vaccine? Do I trust its source and who's delivering it?
- **Constraints**: Where and when is the vaccine offered? Is it covered by insurance? Are social determinants of health, life events, transportation, or time off for prenatal care affecting access?
- **Calculation**: Does vaccine acceptance line up with the information I've extensively researched from family, friends, and the internet?
- **Collective responsibility**: Will getting vaccinated protect others—either by preventing transmission or increasing herd immunity?

Creanga then narrowed the discussion to pregnant patients. Many have specific reasons for accepting or rejecting individual vaccinations such as flu, Tdap, and COVID. But there are a few common drivers across them all: Safety concerns (especially for the infant), insurance coverage/the ability to pay, and the presence or absence of a provider recommendation.

Beyond this, vaccine hesitancy can often be complex and context specific. Higher education doesn't always result in higher likelihood of vaccine acceptance or higher vaccination rates. Patient likelihood of accepting a vaccine varies across time, place, and vaccine types. And an expansive, nuanced middle ground exists between a firm yes and complete refusal.

Creanga continued with a matrix developed by MacDonald SAGE Working Group on Vaccine Hesitancy.[4] According to this framework, a patient's openness or resistance to vaccination is shaped by:

- **Contextual influences**: This includes historical, sociocultural, economic, and political factors, as well as influences related to systems, institutions, and environmental health. Creanga added that race/ethnicity, language preference, and cultural barriers greatly impact vaccine uptake among pregnant patients.
- **Individual and group influences**: What preconceived notions does a patient have about vaccination? How are these perspectives influenced by peers or the surrounding social environment?

Creanga noted that even when information from the CDC and other sources promote a vaccine's benefits, provider discouragement, concerns about vaccine safety or efficacy, and lack of an overt recommendation to get vaccinated can cause hesitancy in pregnant patients.

"We see strong evidence for providers recommending vaccines to pregnant patients," she said.

Other actions that make a difference include offering the vaccine more than once. Finding "new ways to mitigate the effects of poor information" is another area of great importance, Creanga said, noting that many of today's patients get much of their information on vaccinations from online sources.

While many factors contribute to vaccine hesitancy, from safety concerns to social determinants of health, she concluded, providers have several tactics at their disposal to combat them such as emphasizing a vaccine's benefits to the infant or having the vaccine available at the time of the recommendation.

Evidence for Interventions to Increase Maternal Vaccination Rates

Table 1
Evidence for interventions to increase maternal vaccination rates

Intervention	Evidence
Provider recommendation	++
Stocking vaccines in practice	++
Standing orders	+
Group prenatal care	+
Offering vaccination more than once	+
Provider prompt	+
Multifaceted QI intervention	+
Patient education	+/–
Patient reminders	+/–

Strong evidence (++); Some evidence (+); No evidence (–).

Rand et al, 2022

Q&A

Have there been any systematic studies on patient hesitancy to take the mRSV vaccine?

Not yet, Creanga replied. In the meantime, the studies she shared today have lessons learned across vaccine types, she said. “The barriers and facilitators at the end will be almost universal.”

Do you have any information comparing states with Medicaid expansion against those with limited access?

Creanga directed participants to the CDC’s Pregnancy Risk Assessment Monitoring System (PRAMS), which includes data on vaccines such as flu and Tdap. While data availability can be limited to certain response thresholds, she said, the CDC sometimes pulls PRAMS state datasets for broader availability and use.

Hot Topics Session

John Kennedy, MD, *Chief Medical Officer, AMGA, and President, AMGA Foundation*

During the meeting, participants jotted their top issues, challenges, and questions on a paper flip chart in the main meeting room. “These are areas you mentioned throughout the past two days for a deep dive,” Kennedy said, introducing the session. “Instead of an expert providing an answer, you’ll be providing answers to your colleagues.”

Are you giving providers and staff scripts for talking to patients about the vaccine?

Prepared messaging, with training, is part of staff vaccine education, administration, and expectations, one participant replied, noting that teams promptly address any communications that diverge from this messaging.

At another HCO, the team has an agreement that people on the care team who wouldn’t recommend the vaccine don’t talk about it and has others address patient concerns.

In terms of the materials themselves, one participating HCO created a one-pager about ABRYSVO using CDC and AAP information and distributed with the organization’s own branding. Nursing teams, MAs, clinical assistants, and other care team members are informed of the flyer’s availability via SharePoint and the HCO’s print shop, where clinics can order copies in bulk quantities and translation. Meanwhile, the HCO’s Microsoft Teams site hosts a vaccine coordination channel through wich staff can ask and respond to questions, supplementing monthly office hours that serve the same purpose.

If the pregnant patient and baby are seeing different organizations for care, and aren’t on the same EMR, how are you addressing these communication gaps?

One audience member talked about working closely with neonatal clinics and affiliated hospitals and leveraging their state’s registry.

Another solution: Vaccination cards used for years for childhood vaccinations. Some organizations are doing this via forms that are scanned into patient charts that patients can take with them, and Kennedy noted that immunize.org is working on such a card for adult vaccinations. In traditional printed form, however, “those cards disappear,” one audience member cautioned, especially for transient patients.

Whether focused on the system or the format, the mission is to equip patients with immunization records they can take with them and reinforce the importance of knowing and keeping up with their vaccinations. Furthermore, for mRSV, such

cards or records need to have a field that tracks the vaccination date. "The last thing a pregnant patient wants to think about when they're in labor is when did I get my mRSV vaccine," one audience member remarked.

What tactics are you using to reach underserved populations?

One HCO is using a Spanish-speaking family advisory council to learn what patients are most concerned about and what they'd like to see. They are getting the word out through flyers and community groups like churches. For immigrants and new Americans, this may be their first experience with vaccinations and preventative care, so there will be gaps in health literacy and understanding the U.S. health system. "It's a lot to learn."

For outreach overall, provider recommendations make a big difference, and many patients, especially Gen Z, are getting their information online. One audience member talked about how their birth center has its own social page, where personal stories and "beautiful photos of newborns" attract patients to information about vaccine education.

Another shared input from a patient survey related to educational efforts. "Patients want three- to five-minute snippets to watch while they're on a break from their daily activities. They want it broken down and built into the patient portal, not through half-hour in-person sessions."

How are you measuring progress over time, especially when there are no national benchmarks? What improvements are you seeing?

Answers varied. Some participants are tracking the number of vaccines ordered and delivered, with a focus on "achievable goals and quick wins." Others have referenced Tdap tracking for guidance, as Tdap is an established vaccine recommended between 27 and 36 weeks of pregnancy.

For Tdap, progress is gauged by comparing the number of vaccines ordered and administered against the eligible pregnant population year over year. For the mRSV vaccine, however, such direct year-over-year comparisons have been tricky, participants said, citing the previous year's vaccine shortages and late starts.

Despite these challenges, groups expressed optimism overall. "Awareness is out there, and work is moving forward."

Concluding WISDOM (What I Shall Do On Monday)

Casanova concluded the meeting by asking participants about the key learnings they plan to take back to their organizations.

Many plans involve data: Looking at it from last season, gathering it for this season, and putting it all to work. EHR tools, such as Epic's SlicerDicer, enable provider groups to identify population level data trends and then filter or slice the data across multiple dimensions. "As we go on this Epic journey, we're excited that we'll be able to capture all these data," one participant whose group is transitioning to a new EHR noted.

Participants also talked about "leveraging things we currently have to make them better." Could the patient-facing Epic MyChart Care Companion be used as an electronic or virtual vaccination card? Are there other ways to educate patients on recommended vaccines through the Epic platform?

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Maternal RSV Vaccine Preparedness

They emphasized the importance of empowerment, education, and ongoing communication—staying in touch with teams on vaccination supplies, rates, and uptake while "giving patients all the information they need to make an informed decision," in the words of one participant.

Throughout, they encouraged their peers to "check in with teams," with one participant noting that the meeting's presentations "reassured them that provider recommendations really do matter. We will take that insight back to our providers on Monday!"

As a benefit to all members ahead of next season, the ***RSV Maternal Immunization Strategy Toolkit*** *summarizing the insights from these ten HCOs will be available in 2025 on the AMGA website.*

References

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