



For many people, infection by the hepatitis B virus results in mild symptoms, or even no symptoms at all. Yet others experience a more chronic form that can lead to lifelong hepatitis B infection and several serious medical conditions, including cirrhosis, liver cancer, and liver failure.¹¹¹

Beyond the substantial financial costs of patient hospitalizations, chronic hepatitis B can result in several severe, damaging, and long-lasting repercussions for people, healthcare organizations (HCOs), and communities: poor quality of life, reduced economic productivity, long-term disability, and premature death.

The following three things are important to remember about viral hepatitis B: (1) The condition is asymptomatic in many carriers, impeding detection and tracking; (2) It is highly infectious; and (3) It is vaccine-preventable (although treatments are available). "The best way to prevent hepatitis B is to get vaccinated," guidance from the Centers of Disease Control and Prevention (CDC) declares."

Traditionally, vaccination for hepatitis B focused on infants, youth under 19 years of age, and people with risk factors. This umbrella of eligibility has recently expanded courtesy of the 2022 Advisory Committee on Immunization Practices (ACIP) updated adult vaccination recommendations for hepatitis B.

On January 1, 2025, the National Council of Quality Assurance (NCQA) added hepatitis B to its Adult Immunization Status (AIS) measure, a Healthcare Effectiveness Data and Information Set (HEDIS) measure for timely and recommended adult vaccinations. This means that adults age 19–59 without a history of hepatitis B infection or without a history of having completed a hepatitis B vaccine series, have a new immunization to schedule into their ongoing healthcare regimen. For HEDIS-reporting HCOs serving this population, hepatitis B joins a growing roster of recommended adult vaccinations—a list that also includes influenza, pneumococcal, Tdap, and herpes zoster vaccinations.

How are organizations integrating new hepatitis B vaccine guidance and options into their operations? What unique challenges are they facing, and how are they leveraging technology, education, clinical decision support, and their care teams to address these challenges? How are organizations tracking series completion to achieve full protection from viral hepatitis B disease?

Focus Group Participants

Kristine Adams, MSN, CNP, NEA-BC, Vice President and Chief
Nursing Officer, Wellstar Medical
Group

Beth Careyva, MD, Vice Chair, Clinical Operations and Family Medicine, Lehigh Valley Health Network, part of Jefferson Health

Beth Gagge, BSN-RN, Immunization Coordinator-Clinical Education, LVPG Clinical Services, Lehigh Valley Health Network, part of Jefferson Health

Meg Kim, RN, Clinical Operations Director-Vaccine Program, Advocate Health

Philip M. Oravetz, MD, MPH, MBA, Chief Population Health Officer, Ochsner Health

Wendy Scheckel, RN-BC, PhD, Chief Information Officer, Olmsted Medical Center

Jerrome Sicat, BSN, Assistant Director of Nursing, UW Medicine

Brittany Strelow, DMSc, MS, PA-C, DFAAPA, Physician Assistant, Mayo Clinic

Edward M. Yu, MD, FAAFP, CMQ, CPE, Chief Medical Officer for Population Health/Clinical Integration, Sutter Health; Vice President for Value/Population Health, Palo Alto Foundation Medical Group; Board Chair, AMGA Foundation This focus group delved into the details in a discussion moderated by Dynavax, which offers the first adult hepatitis B vaccine delivered in two doses instead of three. Kelvin McKoy, MD, MBA, senior regional medical director, and Shana Durham, PharmD, director, Vaccine Sales-IDN, presented trends and research on hepatitis B vaccination in the U.S., then participants from nursing, family medicine, immunization, population health, and IT shared highlights from their organizations: patient and provider education, electronic medical record (EMR) challenges and opportunities, and fitting an additional vaccine into an already full patient visit and provider workflow.

McKoy began by welcoming participants to the focus group. "Your engagement will help operationalize vaccinations in the marketplace and set the stage for future vaccinations in the pipeline." He pointed out that AMGA, with its Rise to Immunize® (RIZE) campaign, is one of many organizations dedicated to the elimination of viral hepatitis by 2030.

The first part of the orientation involved "level-setting and background information on viral hepatitis B as a disease state," in McKoy's words.

The first challenge is identifying affected patients. "Hepatitis B is an underreported disease," McKoy continued. "And this is due in large part to the fact that most people with acute hepatitis B are asymptomatic."

Key Stakeholders Share a Goal of Viral Hepatitis Elimination



Global Strategy¹



Vaccination Recommendations²



HEDIS® Measure*3



Benefits Coverage



Adult Immunization Campaign⁶

ACIP, Advisory Committee on Immunization Practices; CDC, Centers for Disease Control and Prevention; CMS, Centers for Medicare and Medicaid Services; HEDIS, Healthcare Effectiveness Data and Information Set; NCQA, National Committee for Quality Assurance. © 2025 Dynavax. All rights reserved. July 2025 | US-25-00-00200

1. WHO, Hepatitis. https://www.nho.int/health-topics/hepatitis/elimination-of-hepatitis-by-2030#tab=tab 1, Accessed 9 June 2025. 2. Weng MK, et al. https://www.ncca.org/blog/hedis-rny-2025-whats-new-whats-changed-whats-retired/ Accessed 9 June 2025. 4. Department of Health and Human Services. Viral Hepatitis National Strategic Plan: A Roadmap to Elimination 2021–2025. https://www.nbs.gov/sites/default/files/Viral-Hepatitis-National-Strategic-Plan-2021-2025.pdf, Accessed 9 June 2025. 5. https://www.natga.org/rise-to-immunize, Accessed 9 June 2025. 6. https://www.natga.org/rise-to-immunize, Accessed 9 June 2025.

^{*}As of January 2025, hepatitis B vaccination of adults aged 19-59 is an indicator under the Adult Immunization Status HEDIS measure.

The next involves tracking patients for whom the condition becomes chronic. While most infected patients "clear" the virus on their own, he explained, "unfortunately we, as healthcare providers, aren't able to confidently predict who will clear the virus and who won't."

By providing protection against infection in the first place, hepatitis B vaccination addresses both challenges. McKoy walked through guidance and trends over time, with a focus on how data and discoveries along the way led to the hepatitis B vaccination being added to AIS and HEDIS measures.

For years, the ACIP used age-targeted recommendations for infants and children (guidance that's still in place) and risk-based recommendations for adults. These risk factors include injection drug use, the presence of a sexually transmitted disease, and professions that put adults in contact with infected individuals. However, CDC data show that a known risk factor is only identified in fewer than 25% of acute hepatitis B infection cases.

Under this guidance, hepatitis B cases fell in younger patients yet plateaued in adults. In response, the medical community took a fresh look at risk-based recommendations for adults—and moved to age-based recommendations for all eligible individuals age 19–59.

"History shows us that age-based recommendations typically work better than risk-based recommendations, in large part because age-based recommendations are easier to remember and easier to implement," McKoy noted. Removing the risk factor assessment for adult vaccine eligibility is estimated to increase vaccination coverage and decrease hepatitis B cases.*

Epidemiology of Hepatitis B in the United States

- Hepatitis B is an underreported disease^{1,2}
- Between 2012-2023, annually there were^{1,2}:
 - ~2,000–3,400 reported acute hepatitis B cases
 - ~13,000-22,000 estimated acute hepatitis B infections
- Up to 2.4 million Americans are living with chronic hepatitis B³

Reported and Estimated Acute Hepatitis B Cases^{1,2}* 25000 20000 15000 0 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 *Nearly all reported cases were in persons age ≥20 years

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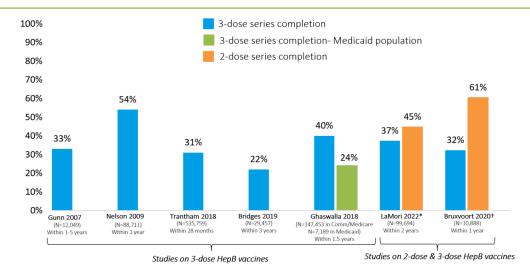
Another consideration that arises with multiple-dose vaccination for HCOs is ensuring eligible patients return to complete the series. How do you ensure full protection? This is an issue for any vaccine that involves multiple doses. The process entails: scheduling another appointment, making a return trip to the doctor, increased workloads. Numerous studies show suboptimal completion rates for hepatitis B vaccination.

"A lot of people may have started this series but may not have actually completed it, and I think that is true regardless of the age of the individual, especially if series completion documentation is absent" McKoy said.

UW Medicine uses Dynavax's two-dose vaccine for hepatitis B, and Sicat called out the impact of fewer steps. "The two-dose series versus the three-dose series made it a lot easier for us to make sure that [hepatitis B vaccination] is completed with most of our patients."

Risk-based recommendations can result in patient hesitancy and resistance, especially in hepatitis B prevention and management. "I just had a patient today," Strelow recounted in the discussion. "They're not wanting to do the hepatitis screens. The patient said, 'That's only for risky people. I've never been promiscuous. I've never worked in healthcare."

HepB Vaccine Series Completion Rates



For most people, seroprotection is not achieved until the series is completed

*N=134 for HepB-CpG and N=99,560 for 3-dose HepB vaccine. After 1 year, 42.5% of HepB-CpG initiators and 33.2% of 3-dose HepB vaccine initiators had completed the series. Adherence (receipt of all doses within the timeframes specified by the vaccine label's dosing schedule) was 32.2% for HepB-CpG and 14.3% for 3-dose HepB vaccine.

†At 3 months following recommended dosing schedule, 44.7% of HepB-CpG initiators and 26.1% of HepB-alum initiators completed the series

1. Gunn RA, et al. Sex Transm Dis. 2007;34(9):663-668. 2. Nelson J, et al. Am J Public Health. 2009;99:S389-S397. 3. Trantham L, et al. Vaccine. 2018;36(35):5333-5339. 4. Bridges CB, et al. Vaccine. 2019;37(35):5111-5120. 5. Ghaswalla PK, et al. Hum Vaccin Immunother. 2018;14(11):2780-2785. 6. LaMori J, et al. PLOS One. 2022;17(2):e0264062. 7. Bruxvoort K, et al. JAMA Netw Open. 2020;3(11):e2027577. 8. Mast EE, et al. MMWR Recomm Rep. 2006;55(RR-16):1-33.

Whether delivered in three shots or two, "I think that everyone on this call realizes that the final dose of a primary hepatitis B vaccine series isn't a booster," McKoy declared. "It's a necessary dose in order for most patients to reach seroprotection, and if the patient doesn't receive that final dose of the series, for whatever reason, then they are at risk of not being fully seroprotected from hepatitis B."

Increasing Awareness of Updated Recommendations

Sweeping updated recommendations are now in place for hepatitis B vaccination in adults. How do you make providers and patients aware of them? Participants agreed that clinical decision support at point of care is critical—and that it's challenging.

"If I ask my providers what's top of mind in vaccines right now, it's COVID, RSV, flu," Oravetz said. "The problem with hepatitis B is that it's been crowded out—that's just the reality."

Careyva noted that this crowd includes screenings and other care as well as vaccinations—"the cadre of things we're trying to address per visit."

Competition is especially fierce when care involves other life-threatening conditions. "There are some who feel the more we add, the less attention each individual metric gets," she said, "that people are paying less attention to colon cancer screening because hepatitis B is in play."

Alerts in the EMR can help—or result in care team overload. After presenting this possibility to various committees, Advocate Health decided not to turn on its hepatitis B health maintenance topic for providers for this reason.

"Their time with the patient is limited. There are screenings that they have to get done," Kim said. "The hepatitis B vaccine does, I think, kind of fall to the bottom of the priority list."

Mayo Clinic briefly turned on its alerts for hepatitis B screening, "and we turned it off, but our hope is to eventually bring that back." Strelow said.

Sutter Health reported a different scenario. The HCO has had its care gap alerts turned on "for years," according to Yu. He pointed out a few contributing factors: California has historically given hepatitis B more attention due to a higher at-risk population, and Sutter bills out hepatitis B vaccinations as cancer prevention.

It's important to note that the CDC clearly states screening should not be a barrier to providing hepatitis B immunization.

EMR Challenges and Opportunities

Is a patient eligible for the hepatitis B vaccine in the first place? If they're not sure—and many can't remember—incomplete records and data access complicate the challenge.

Often, information from payers or other providers doesn't automatically flow over into an HCO's EMR. Sometimes care teams may only be able to look at records from their own state. The time-consuming task of data entry results in many gaps. Scheckel gave the example of a new patient arriving at age 21 with a list of childhood vaccinations administered elsewhere. "It's a lot of stuff to put in the system."

Various features in Epic are making it easier to grasp a full picture, participants noted, as are interoperability standards like the Trusted Exchange Framework and Common Agreement™ (TEFCA) and federal Health Information Exchange (HIE)



requirements. "I think it's forcing those EMRs to be able to share that information more readily," Scheckel said. "But it still does take somebody to put that information in."

Many participants spoke highly of their states' immunization registries, including Sicat. "We make sure that registry [for the state of Washington] is automatically tied into our Epic system, so it automatically updates for us, and anything that comes in and out will automatically go into our version of Epic."

"We have a chart organization query feature that you can look at other organizations that patients may have been to," he said. "That is automatically turned on so that it refreshes automatically."

Expanding the Vaccination Team

At UW Medicine, medical assistants are able to see any routine, scheduled CDC-recommended vaccine first thing in Epic when they're talking to patients, Sicat shared. And if a vaccine is needed, the MAs can get the process going themselves—no physician order required.

Lehigh Valley Health Network also uses Epic to support vaccine orders by nonphysician members of the care team. One feature, according to Gagge, includes warning messages if a potential order falls outside of patient age requirements. This is an important safeguard for a vaccine with different recommendations for different age groups.

Both Olmstead Medical Center and Ochsner Health leverage their pharmacies. Olmstead enlists their pharmacists to lead a multidisciplinary vaccination group, and Ochsner Health brings the department in to administer many of the HCO's immunizations.

"In our larger centers, for the most part, primary care doesn't do vaccinations anymore," Oravetz reported. "Our care teams tee it up," he said, then "bada bing, bada boom—you go to the pharmacy and get your shot."

Shared Decision-Making About Vaccinations and Gaps

During the visit itself, Sutter Health aims to "make it easy for the clinicians and the patients," according to Yu. Sutter likes to share information about the evidence-based medicine that's available about a vaccine as a means to help patients prioritize and schedule various activities likes vaccinations. Yu went on to say that it's a discussion between the patient and provider to vaccinate. "Let the patient and the clinician decide on prioritization if there are multiple gaps."

His team "takes a long view" about addressing hepatitis B vaccination gaps. "If it doesn't rise to the top the first time you see the patient during respiratory season, when they come back at a future time, that gap will still be present, and you can always bring it up."

"During the fall, some of these vaccines—like flu, RSV, and COVID—might float up to the top," Kim noted. "But it's really up to the patient to decide."

Prioritizing Efforts and Resources

The population of now-eligible adult vaccine recipients—patients age 19–59 with no history of infection or past immunization—is huge. How are organizations determining where to focus?



"We review our numbers at our Population Health Council," Scheckel said. "We have a dashboard that has all of our vaccination rates. If we're not meeting those goals or we're falling short of those goals, then we'll prioritize some of those areas."

In addition to internal goals, they'll look at regulatory and payer trends, value-based incentives associated with quality metrics, and outside programs they're participating in, like AMGA's RIZE collaborative.

Strelow talked about using Epic's SlicerDicer function to bring priority groups to the surface. A look at vaccination rates by payer identified a need among their own employees, she reported.

Sutter Health has a health maintenance committee that pays close attention to evolving guidelines. "When new ones come up, they go through our committee pretty much within the next meeting cycle," Yu said. From there, the deliberation, the validation process, and the implementation typically take less than 12 months, he estimated.

Advocate Health similarly has a vaccine committee, which Kim called "a very multidisciplinary group" comprised of infection prevention teams, operational leaders, primary care service line leaders, and pharmacy. This committee addresses new ACIP recommendations so they can be operationalized as swiftly as possible, whether or not a health maintenance topic is ready in Epic.

"Many times, we don't wait for the health maintenance topic schedule," she said. "And many times we're totally implemented by the time it comes out."

Improving Patient Education and Access

One priority throughout is raising awareness of hepatitis B vaccine recommendations and options among the people receiving the shots.

"So many patients just aren't aware that they're due for this," Careyva observed. "So there really is a marketing opportunity here."

"Many [patients] just assume that they had it as a kid, so they don't need it," Strelow said. Her team at Mayo Clinic has been working to build automatic reminder campaigns in Epic, as they've done for other initiatives like cervical cancer screenings.

She emphasized the importance of adapting education materials to specific patient populations. Are materials in their chosen language? To what degree are patients able to read and write? The latter is a consideration for Mayo Clinic's sizable Somali population, as the Somali language had no official written alphabet until 1972. "We've been doing a lot of videos with audio for them," Strelow said.

To facilitate busy adults to get in for their vaccinations, Strelow presented an idea. "We do a lot of childhood immunizations catching up at the schools. But we've never targeted parents at those events, and I think it's a great way to target parents because they're there. It's hard for parents to get in and get time off from work."

Participants noted the importance of making such campaigns user-friendly for back-end staff and providers as well. Create something that's easy to execute and generate buy-in for the initiative up front. Especially in today's crowded ecosystem of interventions, provider teams respond to results. "Show us that it does better than what we are currently doing," said Oravetz.



Other Points of Discussion

Adams wondered about a specific subset of vaccination recipients: "The people who've had titers drawn and are showing no immunity, even though they've been vaccinated multiple times?" How should organizations record this in their data systems and consider these patients in terms of vaccination options?

And tackling the full influx of newly eligible patients was a discussion point throughout the session.

The size and nature of the new hepatitis B target group, patients age 19–59, present challenges and opportunities. "There's not a lot of things they need for their care" compared with older patients, Durham said. With the hepatitis B vaccine guidelines, providers now have an entry point to bring younger patients into preventative treatment and holistic care.

Given the wide age range and sheer numbers of this new target population, Ochsner Health is "piecemealing" vaccinations, Oravetz reported. "You can't foist millions onto the system," he said. "But add them in increments every year, and we'll get there eventually."

Endnotes

i https://www.cdc.gov/hepatitis-b/hcp/clinical-overview/index.html

ii https://pmc.ncbi.nlm.nih.gov/articles/PMC5307261/

iii https://pmc.ncbi.nlm.nih.gov/articles/PMC11257816/

iv https://www.aafp.org/pubs/afp/issues/2009/1015/p884.html

v https://www.cdc.gov/hepatitis-b/hcp/clinical-overview/index.html

vi https://www.aafp.org/pubs/fpm/issues/2023/0900/hepatitis-b-vaccination-recommendations.html

vii https://www.ncqa.org/blog/hedis-my-2025-whats-new-whats-changed-whats-retired/

viii https://wpcdn.ncga.org/www-prod/wp-content/uploads/07.-AIS-E.pdf

ix https://www.hepb.org/prevention-and-diagnosis/transmission/

x https://www.cdc.gov/mmwr/volumes/71/wr/mm7113a1.htm

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