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INSIDE

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Younger Women at Increasing Risk of Illness, Death in United States

By Melinda Young

Recent research and reports paint an alarming picture of reproductive-age women's health in the United States, suggesting societal-level changes and case management attention is needed to reduce avoidable deaths, particularly during pregnancy or recently after giving birth.[1-3]

When compared with other high-income countries, women in the United States record the highest rate of avoidable deaths, numbering 198 per 100,000 females. The next highest is the United Kingdom, with 146 avoidable deaths per 100,000 females, according to a new report by the Commonwealth Fund.[1]

The maternal mortality rate difference between the United States and 10 other high-income countries is even more dramatic: 23.8 deaths per 100,000 live births. This is more than three times greater than France, which reported the second-highest rate of maternal mortality.

"Frankly, it's unacceptable," says **Munira Z. Gunja**, MPH, senior researcher for the Commonwealth Fund's International Program in Health Policy and Practice Innovations in New York City. "It's gone higher during COVID. A change needs to happen. When we look at other countries that have been successful at reducing or eliminating maternal deaths, it all starts with primary care."

Even worse, Black women in the United States — with 55.3 maternal deaths per 100,000 live births — are 17 times more likely to die during or shortly after pregnancy than are German women. They also are nearly three times more likely to die while pregnant or within 42 days of the pregnancy's end than are white women or Hispanic women in the United States.[1]

Among women from high-income nations, women in the United States are the least likely to report visiting a regular doctor — and it is the only affluent nation without universal healthcare.[4]

"We're fixed on maternal care, but it extends beyond it to our primary care

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system and mental healthcare system, and these cannot be ignored," Gunja says.

Racial Disparities in Mortality Rates

Recent data show an increased rate of maternal mortality among Black people, says **Kamilah Dixon**, MD, MA, assistant professor and vice chair for diversity, equity, and inclusion in the departments of obstetrics and gynecology at The Ohio State University (OSU) College of Medicine. Dixon also is the medical director of the Moms2B program in the OSU College of Medicine.

"It's alarming and disheartening, especially as an OB/GYN, as a Black woman, to see this inequity that we continue to have in this country," Dixon says. "Clearly, we have a lot of work to do."

One solution health systems could employ is contacting women during pregnancy and follow up with them for a year after they give birth. The Moms2B program has shown some success, suggesting it can help alleviate disparities in maternal mortality rates.[2] *(See story on Moms2B in this issue.)*

The differences in maternal mortality between Black women in the U.S. and white women is not explained entirely by economic differences. "A Black woman who has a college degree has a higher rate of mortality in pregnancy than does a white woman without a high school degree," Dixon says.[5] "When we talk about disparity in healthcare, we'd be remiss to talk about it in a vacuum. There is systemic racism in the United States that impacts the health status of our people."

Dixon finds medical students and residents are particularly concerned with the nation's high rates of maternal mortality.

"I have students with graduate degrees who are well off, but they share concerns about dying after they deliver because of what they've heard about the disparities," she says.

Problems related to health disparities, including maternal health inequities, are comprehensive enough to require new government policies and solutions. Access to education, quality of medical facilities, neighborhood, social, and economic factors all play a role, says **Hossein Zare**, PhD, MS, an assistant scientist at Johns Hopkins Bloomberg School of Public Health.

EXECUTIVE SUMMARY

Reproductive-age women in the United States experience the highest avoidable death rate among high-income nations worldwide, according to researchers.

- The maternal mortality rates for U.S. women are three times higher than the rate of maternal deaths in France, which is the second-highest among high-income nations.
- Maternal mortality for Black women in the United States is 55.3 maternal deaths per 100,000 live births — nearly three times higher than maternal deaths among white or Hispanic women in the United States.
- Economic differences alone do not explain the disparate maternal death rates between white and Black American women.

Even when Black women can access proper healthcare resources, their outcomes remain poor, partly because society consistently limits the efficacy of those resources, Zare noted in a recent paper.[6]

"We are working [with] a group of low-income Black women to help them control their hypertension, and we have increased their knowledge," Zare explains. "What's happening in the real world is they have the knowledge, but they don't have enough money to improve their unhealthy food behavior, and they lack resources to sustain being in a safe place."

Access to prenatal care is not the only solution to reducing racial disparities. "Increasing access is only one element," Zare notes.

Maternal Health and Overall Health Status

Other elements include providing people with access to healthy food, better education, and safer communities. For instance, a pregnant woman might know she needs to eat fresh fruit and vegetables, healthy protein, and less processed food. But if she lives somewhere that is far from a grocery store, she might not be able to obtain the food that would benefit her health and pregnancy.

Even exercise can be difficult for women who live in areas where there are no safe sidewalks or parks for walking. "When we are trying to increase health access, we're not looking at one element," Zare explains. "We should go back and look at more structural differences of quality and policy that are inside of some populations."

Maternal health and outcomes are closely tied to reproductive-age women's overall health status in the United States, says **Alison Gemmill**, PhD, MPH, assistant professor in the department of population, family, and reproductive health at Johns Hopkins Bloomberg School of Public Health.

"We focus on maternal deaths a lot, but women are dying from other things, too. It's important to know the full story," Gemmill says. "I've been working on a project that looks at deaths due to suicide, homicide, and drug overdose among postpartum women, and it mirrors the trend among reproductive-age women."

For instance, as the opioid crisis escalated, it affected postpartum outcomes and mirrored the trend of avoidable deaths among reproductive age women.[3]

Pregnancy is even a risk for homicide in some populations. "There need to be increased screening in pregnancy and postpartum for these types of stressors and determinants that women experience and that are sometimes escalated during pregnancy and postpartum," Gemmill says.

Women's health should be addressed holistically. It also should become a priority, particularly in states where health outcomes among reproductive-age women are the worst.

"One finding is that the gap in mortality rates between the best- and worst-performing states was about 2.5 — a pretty wide range,"[3] Gemmill says. "Where you live matters for your risk of death in these reproductive ages. We found a strong correlation between dying from any cause of death in a state and dying from maternal causes."

This finding suggests structural and social determinants of health, and not just health system factors, are influencing risks of maternal deaths, Gemmill says.

The state in which a woman resides also could increase or decrease her risk of death during pregnancy or postpartum. Maternal mortality data show high rates in nearly 20 states, primarily located in the South and Midwest, but also including some Northeastern and Northwestern states.[2]

All-cause death rates of reproductive-age women also are highest in the Southern region. "Alabama, Arkansas, Kentucky, Tennessee, West Virginia, Mississippi, and Louisiana were the southern states where mortality rates were the worst," Gemmill notes. "There's pretty rich literature that looks at death across the health span and finds these states matter for where you live. It kind of mirrors the patterns we see for infant death, premature death, and life expectancy."

These statistics suggest health is driven by sociopolitical factors, including educational opportunities, safety, and policies that may affect health but do not directly pertain to it.

For example, recent research showed an association between the abortion policy environment and a heightened risk of maternal mortality.[7]

"There are studies coming out that look at a state's policy environment and how that shapes people's health. It does seem to matter," Gemmill says.

The best-case scenario is for health systems and providers to address social determinants of health and employ case management tactics to help at-risk women of reproductive age to become healthier.

"You want people to be as healthy as can be when they get pregnant," Gemmill says. "But their health is shaped across their lives. If they've been exposed to adverse things

like racism or adverse childhood experiences, then that's what's causing poor health. Focus on those instead of their behaviors, and think about social structures that cause a poor diet." ■

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Case Management-Style Program Improves Pregnancy Health and Outcomes

By Melinda Young

Healthcare providers can help reduce maternal and infant mortality and improve women's health during pregnancy by implementing a case management-style program that follows women throughout their pregnancy and for up to a year after they give birth.

Called Moms2B, the program begins during pregnancy. The only requirement is for the woman to live within a service area that is targeted because of its high infant mortality rate.[1]

"We're a multidisciplinary team of a physician, nurses, dietitians, lactation counselors, community health workers, transition coordinators, early childhood educators, and social workers," says **Kamilah Dixon**, MD, MA, assistant professor and vice chair for diversity, equity, and inclusion in the departments of obstetrics and gynecology at The Ohio State University (OSU) College of Medicine. Dixon also is the medical director of the Moms2B program in the OSU College of Medicine.

Educational Sessions

Most patients are uninsured or on Medicaid. Sixty-five percent are non-Hispanic Black.

"They can enter the program at any point, and we have an e-referral program where we get referrals from other physicians, midwives, and institutions we partner with," Dixon explains. "What I have found is that this is excellent care for the patient, and they're doing case management."

Moms2B provides pregnant patients with education about breastfeeding, nutrition, stress reduction, child development, family planning, goal setting, early prenatal care, labor and delivery, maternal-infant health, positive parenting, reproductive health, and more.

The educational sessions are two-hour, weekly sessions that were held in-person before the COVID-19 pandemic and switched to virtual programs during the pandemic. Now, they are offered as a hybrid model of in-person for people who can attend one of three locations and virtual for those who cannot.

"We meet weekly and check in with the mom to go over various social determinants of health screenings: Do they have enough to eat? Do they have housing?" Dixon explains.

Before the pandemic, the program gave new mothers a welcome-to-the-world bag with baby items. Now, they receive a phone call, and someone ensures follow-up visits are scheduled.

As patients go through childbirth, the Moms2B team continues to help them manage their care through the postpartum period.

"Someone from the team calls to see how they're doing with breastfeeding. How is their mood? What are their plans for family

planning?" Dixon explains. "They help facilitate getting them in to see [a provider] sooner, if need be."

Care management and education continues for the first year of the infant's life. "We follow the moms until the baby turns 1," Dixon says. "Today, we had a mom who graduated, the baby turned 1, and we sang happy birthday, and the baby got a little toy."

An earlier study, based on data through 2018, revealed women who participated in Moms2B saw decreased rates of preterm delivery and lower rates of infant mortality.[2]

Anecdotal evidence suggests the program is popular with women. Often, women who were part of Moms2B with one pregnancy and birth returned to the program for a second or third birth.

"One woman who is pregnant and came back to the program says she came back because of the community it creates and because she knows this is a group of people who care about her and can provide her with support," Dixon notes. "We have a lot of moms who enter the program without having a robust support system."

The program's success has resulted in other health systems across the United States requesting information on how to start a Moms2B program. OSU is in the process of expanding it to the Dayton, OH, area.

"A lot of people are reaching out and want to replicate it," she adds. "We're in the process of talking to some and seeing how they can build it in their areas as well."

Providers Also Receive Education

The Moms2B team also educates reproductive healthcare professionals about the challenges pregnant and postpartum women face. "We help educate our community of residents, students who rotate with us in various disciplines, social work students, medical students, and dietitian students," Dixon says. "We take pride in educating others and making sure people know the experiences our moms are having so these [negative] experiences can be changed."

Dixon has heard from pregnant women who asked to transfer their prenatal care to her because they did not feel their concerns were being heard by their original provider.

"If they don't feel like they're being heard, we encourage them to find a provider who will listen," she says.

Physicians who have given birth can empathize with what these patients are going through and what their fears are.

"I have an 8-year-old son," Dixon says. "When I think about what my goal is for my patients, it's that I want them to have the experience I had when I gave birth as a young Black woman in Houston."

Dixon was a third-year resident, giving birth in an area that had one of the highest rates of Black maternal mortality.

"It gives me chills when I reflect on that," she says. "I had excellent care, a wonderful attending, and wonderful nurses."

One of Dixon's colleagues was on call and stayed to deliver her son via an emergency cesarean section.

"Normally, you would be scared, but I wasn't because I was in excellent hands and trusted my providers. That's the feeling I want to give to every one of my patients," Dixon explains. "It's important to make sure communication is there, because if patients don't trust their provider, they won't tell them everything that's going on." ■

EXECUTIVE SUMMARY

One way to help improve the health of new mothers and infants while reducing mortality is to implement a case management-style program.

- One program, called Moms2B, begins in pregnancy and helps patients who are uninsured or on Medicaid with weekly educational sessions during pregnancy and support for their health and their infant's health after they give birth.
- A multidisciplinary team works with women to check their social determinants of health and to ensure they receive follow-up care and answers to any concerns.
- The Moms2B program has helped decrease rates of preterm delivery and infant mortality.

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Telehealth Works, but Younger Patients Prefer Video Calls

By Melinda Young

The results of recent research reveal telehealth visits can work with most patients, although age-related differences affect how visits are structured.[1]

Among patients older than age 50 years, more reported challenges with telehealth visits than did those younger than age 50 years, researchers found. Older adults were less likely to own smartphones with internet access and were less likely to prefer video telehealth visits.

"We did this study because we were really concerned when COVID-19 happened and everyone was changing to telehealth," explains **Mary M. Pasquinelli**, DNP, APRN, FNP-BC, advanced practice nurse in pulmonary and medical oncology at the University of Illinois (UI) Health and adjunct clinical instructor at UIC College of Nursing. "We were concerned with our patient population having technology for telehealth. The aim of the study was satisfaction with telehealth technology and visits."

UI Health is an urban academic safety-net hospital that serves a primarily minority population from a low-income economic background. About three in four patients are minorities.

"That's why we were really concerned — because we knew this population of lower socioeconomic status may not have the technology needed to do telehealth visits, particularly video telehealth visits," she adds.

Access to Technology Varies

Pasquinelli and colleagues found older patients had less access to the internet, less access to computers, and fewer smartphones.

"The concern is that if you have to do a video telehealth visit, a large proportion of older patients who have chronic conditions do not have access to technology for a video visit," Pasquinelli says. "But all had access to some type of audio device — either a landline or non-smartphone, like a flip phone — to do some type of connection."

Audio telehealth visits would work for some patients. "At the beginning of the pandemic, insurance companies said they'd pay for video visits at higher rates than they would for audio visits, but that changed in some states and with some insurance companies," Pasquinelli explains. "This made a big difference because you want everyone to have access to telehealth for health equity." Medicare pays the same for both audio and video visits, she adds.

It is possible payers could change how they reimburse for video and audio visits after the pandemic ends. But more patients benefit from the pandemic-era policies.

"We have the ability to meet our patients where they are with the technology they have," Pasquinelli says. "If we could do only video telehealth visits, that creates health inequity to patients who don't have video technology. Ensuring the equitable access for all modalities of telehealth across the age continuum is paramount."

The age difference in technology access could disappear in hospitals that serve more affluent patients, where smartphone and computer use among older patients may be more common.

"But we provide healthcare to all people, and in our study, we found that older patients preferred audio over video," Pasquinelli says. "We also found they had a very high confidence rating and felt confident they were receiving quality care through either audio or video calls."

As physicians and case managers have become more comfortable with telehealth visits for monitoring patients and their chronic conditions,

EXECUTIVE SUMMARY

Patients older than age 50 years are less likely to have access to smartphones and computers to carry out video visits with providers, researchers noted.

- Researchers studied a primarily minority, low-income population.
- Participants indicated high confidence rating with quality of telehealth care for both audio visits and video visits.
- Telehealth options should remain available after the pandemic. These options can improve healthcare access for people who live far from health systems and face transportation challenges or other obstacles to in-person visits.

it is important to know this is not the best option for every patient.

"It's important to have options," Pasquinelli says. "It depends on what the situation is and the reasons for the visit."

Patients who need blood work or need an in-person visit for other medical reasons may not benefit from remote monitoring.

"For other patients, video is OK for some things, and audio is good for other things," she says. "For instance, I run a lung cancer screening clinic, and part of that clinic is doing in-depth smoking cessation. Our follow-up visits for smoking cessation are usually done by telehealth."

In these visits, clinicians check on the patient's progress, address barriers to smoking cessation, and provide medication management.

Even in cases where a patient has a rash, this can be done by video visits or even by audio visits, if the patient can send photos to the clinician.

"We have to meet our patients where they are," Pasquinelli explains. "Many of our patients have significant barriers to healthcare, which is not unusual at our hospital or across the country."

Even people who live near a health system might face transportation issues and other obstacles to an in-person visit.

"They may not be able to walk to a clinic, or they may need to take three buses," Pasquinelli says. "It's difficult."

At least until the pandemic is over, it is important for health systems and providers to offer telehealth options for people with barriers to in-person visits.

Case managers and providers should assess patients for barriers by asking them these kinds of questions:

- Do you own a computer?
- Do you use a smartphone?
- Are you open to ongoing visits via telehealth?
- Are you open to a hybrid of telehealth and in-person visits?
- Could a case manager, pharmacist, or another healthcare professional call you at home to follow up on your symptoms and medication management?
- Could someone review your test results by phone or videoconference?

Providing follow-up on test results via telehealth could decrease the time between diagnosis and treatment.

"The approach in the future is to do a hybrid, to have the options for in-person and telehealth," Pasquinelli adds. "When they don't need to come in, we do the visit by telehealth; when they do need to come in or prefer to come in, we do it in person."

For people who live in rural areas and must travel many miles to see a physician, the telehealth option can help with follow-up appointments after a hospital stay.

"People can come from far away to see a doctor for in-person visits. Subsequent visits could be through telehealth after a relationship is established," she says.

Pasquinelli and colleagues also found most people would prefer telehealth as an option after the pandemic ends. Of those younger than age 50 years, 83% wanted telehealth as an option, while 17% wanted to return to all in-person visits. For those older than age 50, 65% wanted telehealth as an option.

"It's great when they can come in for face-to-face visits, but when they can't, you have options, and the provider will be reimbursed for that," Pasquinelli says. "We're meeting patients where they are with the access limitations they have. We're continuing to provide good high-quality care, and we should be able to do that after the pandemic." ■

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Cardiovascular Risks Increased After Recovery From COVID-19

By Melinda Young

Even 30 days post-infection, people with COVID-19 are at increased risk of cardiovascular disease, including heart failure and thromboembolic disease, researchers found.[1] Case managers and healthcare providers across the care continuum will need to consider a past bout with COVID-19 as a new risk factor for heart problems.

"We've been dealing with the pandemic for a little more than two years, and we've noticed that after people get COVID-19, they are coming back to the clinic with heart problems," says **Ziyad Al-Aly**, MD, director of the Clinical Epidemiology Center and chief of research and development at VA St. Louis Healthcare System. Al-Aly also is a clinical epidemiologist at Washington University in St. Louis. "We wanted to understand whether we have a skewed view of this or if it is happening on a massive scale to people who had COVID-19. We looked at 153,000 people and 11 million controls, and we found these patients had higher risk of heart problems."

These problems included fast heart rates, slow heart rates, heart attacks, heart failure, vascular disease, strokes, and ischemic attacks.

"Some people had blood clots in the legs, and sometimes those blood clots would go into the lungs and cause pulmonary embolism," Al-Aly explains. "Even after a year of observation for these patients, people with COVID-19 were having significantly higher risk of heart problems."

When 150,000 people are compared with 11 million controls and these findings result, it is compelling evidence, Al-Aly adds.

"What we found was that even those who didn't get hospitalized had high risk," he says. "But those who were hospitalized or who were in the ICU had really high risk."

Assess for Risk Factors

As the pandemic ebbs, case managers and providers may need to develop tactics for following up with patients who were hospitalized with COVID-19 to ensure they are receiving primary care that pays close attention to their heart health.

"Those who were hospitalized or in the ICU for COVID-19 have exceptionally high risk of developing heart problems as a result of COVID-19," Al-Aly explains. "They manifested with exceptionally high risk of cardiovascular conditions a year out."

When providers see patients with a history of hospitalization for COVID-19, they should assess the patients for risk factors for heart conditions and ensure they are diagnosed early on and treated aggressively.

"Watch them like a hawk for chest pain, stress," Al-Aly suggests. "That's going to be important from a care management perspective."

The VA health system uses post-COVID-19 clinics. This is a great idea for all health systems as well, he adds.

"All health systems should have post-COVID care pathways," Al-Aly says. "There's unlikely to be one size that fits all of these nationwide."

Patient populations vary, and post-COVID-19 care should be designed according to those differences. Generally, post-COVID-19 care should be patient-centric, considering each patient's long-term health concerns that may be related to their previous infection.

"Those who had COVID-19 are advised to be cared for in the post-COVID clinic, especially if they have manifestations like brain fog, fatigue, kidney disease, or diabetes after COVID," Al-Aly says. "Heart disease is not the only thing that can go wrong."

Clinical care pathways can direct patients through the healthcare

EXECUTIVE SUMMARY

People with COVID-19 are at greater risk of cardiovascular disease, even after a year of observation, researchers found.

- COVID-19 placed people at greater risk of fast or slow heart rates, heart attacks, heart failure, vascular disease, strokes, and ischemic attacks.
- Some people who recovered from COVID-19 developed blood clots in their legs,, which could lead to pulmonary embolism.
- Anyone who contracted COVID-19 was at higher risk, but those who were in the ICU were at the highest risk.

system and address any problems that arise after COVID-19.

Some clinicians might ask why a post-COVID-19 clinic is necessary when these patients could be treated by their primary care providers. The answer is that health systems with post-COVID-19 clinics are improving care through branding, Al-Aly says.

"A lot of times, it's branding it as post-COVID care," he explains. "It tells patients, 'I see you. I hear you. I recognize your problem. I acknowledge your problem.'"

When patients enter the healthcare maze, they may be unsure whether their physician is familiar with long COVID symptoms, or even whether the doctor believes there is such a thing. Then, they may be referred to other providers for certain symptoms and get lost in the shuffle.

"Health systems should be prepared to have clear and clearly branded post-COVID or long-COVID pathways," Al-Aly says. "This orients patients, telling them where they go for help. 'You may not get all the answers there, but here's your hub, and you'll be cared for by people who understand your condition.'"

That is enormously important to patients with a complex condition like long COVID. "Medicine is about healing," Al-Aly says. "If we're truly intending to heal people and give them care, the first thing is to recognize them."

A post-COVID-19 clinic provider can connect all the dots for patients, helping them understand their condition and helping them reduce frustration and feeling as if the health system is not responding to their needs.

Referrals to post-COVID-19 clinics can come from the health system or community providers. Case managers can address the referral with patients during discharge planning.

"This is ongoing and it's evolving; it's in the embryonic stage," Al-Aly says. "The whole idea of a post-COVID clinic is brand new, and we're learning as we go in setting this up and trying to educate the workforce."

For example, a post-COVID-19 interest group, conferences, or an innovation hub could be used to educate nurses, physicians, and others in healthcare about health problems that occur among people who have had COVID-19.

"It's all new to us that it can lead to a long-term manifestation like heart disease," Al-Aly says. "We didn't know this a year ago; we're learning as we go, and acting on new evidence."

The VA's post-COVID-19 clinic can see people for in-person visits and virtual visits. A patient's first visit is in person, but follow-up visits could be scheduled to be virtual, depending on the patient's preference.

"Some people live 30 to 40 miles away, and they may opt for virtual visits because they could do this from their couch and their laptop," Al-Aly says. ■

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Taking Action from Estimated Date of Discharge Analytics

By Jeni Miller

With so much data available for analysis, it can be challenging to know exactly how to use each piece to truly maximize its value. One of these bits of data case managers can and should unlock and apply is estimated date of discharge (EDD).

The EDD is an estimate given as early as possible, ideally on the first or second calendar day of hospitalization for a patient. Even for a shorter stay, the date should be recorded at least 24 to 48 hours before discharge. Recording the time of day for discharge is not necessary, but when the clinical team is discussing the patient, they may reference morning or afternoon.

The date itself is not set by the case manager alone.

"It's important to think about we, not I, as in 'not the case manager alone,'" says **Jeff Echternach**, MBA, AS, NRP, DSC, technology officer for the Center for Case Management. "A lot of hospitals don't pin down only one person or entity to set the date; rather, it's the multidisciplinary care team made up of physicians, frontline nurses, nurse managers, physical therapists, case managers, anyone attending daily rounds. During the one- to two-minute patient update, they might provide a frame of reference by offering the EDD."

The EDD can change during the hospitalization. Echternach adds that, during rounds, providers may say, "As long as we don't see this or that, Friday still makes sense."

"With that information, the clinical team can react and provide input," he notes. "Whether a social worker might say that a benefit is not in place, or a pharmacist responds that a certain drug is not yet available, this conversation shapes the date and can inform a more accurate date."

Determining the EDD

While an EDD is not required, it is incredibly helpful. Determining the EDD can happen in many ways, and the date is fairly objective.

"Clinicians can load or predict the first EDD by looking at the patient's anticipated DRG," Echternach explains. "They can use concurrent coding or other influences to predict what kind of diagnosis this patient will ultimately come up with, knowing that there is always going to be a margin of error. Patients are people, so they're not produced on an assembly line. Regardless of that margin, for hospitals especially, inputting an EDD is so helpful toward predicting future capacity and census. It's better to go in knowing the error rate or margin of error, and not assume that the EDD will 100% come true. Sometimes, the date will change."

Significance of the EDD

The EDD, a small snapshot of information, attempts to provide a reference point for when the patient will go home — and, surprisingly, that minute detail can prove significant later.

As a frame of reference for rounds, the EDD can ground discussions for the clinical team and help them consciously think about the length of stay for that patient. The information also can be used to predict census and capacity, especially when a powerful data program provides a clear report of aggregate data.

"Once the date is in the computer, the hospital case managers can leverage the information as a census and throughput tool," Echternach says. "This was the capacity center or transfer center who is looking at compiled data and can know whether they're short 20 beds or in an 'out of capacity' crisis. The data can also be used as a predictor for future capacity planning."

'Three Moments in Time'

Most computer systems or electronic medical records (EMRs) can analyze different dates entered for a patient. Echternach recommends case managers and other members of the team consider "three moments in time" when it comes to recording an EDD:

- The first EDD, recorded within 24 hours (optimally) or 48 hours of admission;
- The second EDD, recorded two days from the first EDD;
- The last EDD, recorded at least 24 hours before discharge.

"For example, with a pneumonia patient, let's say it's Monday and you put in the first EDD today, the first day of admission," Echternach explains. "The team predicts a Friday discharge, but throughout the week, more information is received about the patient. Perhaps they're doing much better and will probably discharge on Thursday instead. The second EDD can be put in to reflect that. If the patient goes home that Thursday, then we want to be able to look back in time and in an aggregate manner at the first EDD prediction that clinicians put in and assess how accurate the first and second EDDs were in comparison to when the patient actually left."

These three discrete moments offer significant insight into how decision-making and analysis is conducted in the hospital. Echternach suggests the key to analyzing these data is to look at the level of accuracy and ask good questions to assess what might be going on. Helpful questions to ask include:

- Were you accurate to the same day of discharge?
- If not, how many days off were you?
- Did it come in as an underestimate or overestimate?
- Does the team tend to underestimate at the beginning or end of the stay?
- Was it more accurate two days out from admission or two days out from discharge?
- In general, do you note a higher accuracy with specific diagnoses or with certain clinical teams?

"It can all be summed up as 'Were we accurate, yes or no, how far off were we, and was it an over- or underestimate?'" Echternach notes.

Many other aspects can be considered, such as the floor of the hospital, the clinical team, the diagnosis, the type of patient, how the patient arrived, and even the kind of user that documented the EDD — a nurse, social worker, or others.

"There are so many variable slices that can help the hospital see patterns with clusters of accuracy or inaccuracy," Echternach says. "The important thing is to ask how

accuracy can be improved here, or what might be driving this grouping of high or low accuracy. Is it how the disease progresses? Is it the team? When you zoom out and then back in with these analyses, you may find awesome practices that this date alone could give you an early indicator of. If case managers and their teams do this right, it can be close to a diagnostic indicator of opportunities."

Help for the Case Manager

Using EDD data can help improve processes, make accurate predictions, and give clinicians amazing insights into the overall picture of the hospital's well-being. Of course, a system must be in place to enable these data to be captured. Ideally, the system should allow the user to differentiate between each entry so insight can be gleaned from the subtle differences from the first to last entry. It is equally important the team knows how to use the system.

"Make sure there is adequate teaching or structure for this information to be put into system," Echternach says. "It's not fair to put in an EDD 25 minutes before the patient exits the building. The latest input will always look perfect, but we won't learn from that. There should be a statement in the system to exclude any estimates that were put in on the same calendar date that the patient actually leaves, and don't include patients that discharged within one calendar day. It's wise to consider that exclusion or a similar exclusion to get the most out of the data."

Most EMRs do a decent job of supporting case managers and their needs, especially when it comes to visualizing and stratifying the data managed by the system.

"It all comes down to getting the data out of the EMR and into a dashboard that allows you to look at dimensions and to measure the three moments in time," Echternach explains. "As long as the intervals of time make sense, you should have usable data."

"IT ALL COMES DOWN TO GETTING THE DATA OUT OF THE EMR AND INTO A DASHBOARD THAT ALLOWS YOU TO LOOK AT DIMENSIONS AND TO MEASURE THE THREE MOMENTS IN TIME."

Taking Action

It is wise to act on pockets of high and low accuracy, Echternach says. Ways to make improvements based on the levels of accuracy include:

- Offering feedback to those groups and discussing what may be contributing to high or low accuracy;
- Where possible, replicating high accuracy traits and improving low traits.

Hospitals can capture many trends by studying the data and using them to make adjustments to practice. This can often lead to a shorter length of stay.

"EDD can also be one of the more effective advanced warning systems for capacity, such as capacity threat levels or management levels based on the quantity of estimated discharges," Echternach says.

Other times, following EDD data can help hospitals improve their processes and address areas of weakness.

"One system with which I worked found that they were wildly inaccurate with sepsis," Echternach recalls. "But the hospital acknowledged that sepsis care was an opportunity for improvement — not just for case management, but as a global hospital opportunity. As they were becoming more efficient, they put a lot of standards around how they care for sepsis patients. We noticed pockets where, in specific nursing units, looking month by month, it was indicating a really bad couple of months with inaccuracy. It was hard to explain that, but still it was statistically significant."

Ultimately, the hospital found when staffing was low and case management had to cover nursing care in addition to their case management functions, there was a noticeable dip in the quality of EDD accuracy. They found a similar correlation in length of stay on those units. All this information together enabled the hospital to see the overall picture and address these challenges.

Trends like this can be uncovered in any hospital system, and with the guidance of the case management team, improvements can take place that result in excellent care for patients, encouraging metrics for the hospital, and a more positive experience for the case management team, who can better anticipate their workload and census. ■

Hospital Patient Care Is More Complex and Challenging Than Ever

By Melinda Young

The COVID-19 pandemic laid bare the problems that have affected healthcare for years, including capacity issues and staffing shortages.

"Staff burnout is a real challenge," notes **Kristin Calheno-Hill**, RN, BSN, MA, director of strategic clients at Change Healthcare of Nashville, TN. She gave a presentation at the American Case Management Association's National Conference in May. "Staffing shortages and capacity issues certainly play a major role. There is an aging population, and that means the workforce is aging as well. Staff burnout is real, and that's impacting [the workforce]."

Organizations and staff are asked to do more work with fewer resources. The challenge is forcing some to create more efficient processes.

When efficiency is the goal, case management and healthcare systems need to consider using technology and innovation solutions to improve the process of admitting patients to the right bed at the right time and transitioned to the right place.

Another solution is to allow case managers and utilization nurses to operate at the top of their license. They should be able to spend less time on tasks and administrative work so they can focus their attention on managing care for complex patients.

"When I think about the patients in the hospital today, patients are more sick and complex than ever," Calheno-Hill says. "I think healthcare systems have a real opportunity to drive efficiencies with the use of technologies to automate processes."

Organizations should move away from paper and fax and learn how to automate processes to allow nurses to focus their time, Calheno-Hill says. For example, health systems could use technology to predict a patient's length of stay and level of care. They can leverage data to help automation.

"We still want clinical decisions to be rooted in the evidence and evidence-based criteria on who should be admitted and who is appropriate for [long-term care] or home care," Calheno-Hill says. "Use analytic data to drive those decisions and to prioritize who we need to be managing."

For instance, Change Healthcare uses technology that automates a medical necessity review, using data from patients' electronic health records. The tool predicts patients' level of care and their length of stay. This can help a case manager prioritize patients according to available data.

"If a patient looks like an observation patient with a shorter length of stay, then maybe they don't need to focus as much time on transition of care because it's not as complex," Calheno-Hill explains.

With more complex patients, case managers could these tools to help patients transition to the next level of care safely.

A healthcare organization's goal could be to improve workflow efficiency and leverage technology so nurses, case managers, and others can manage patient care without the burden of tasks that can be handled through technology.

"Nurses become nurses to take care of people and manage their care," Calheno-Hill says. "When they're burdened with paperwork tasks, this can contribute to burnout in the sense that nurses can't focus on why they went into nursing."

No one attends nursing school with the dream of checking boxes on forms. "Anything we can do to alleviate that burden and allow nurses to think about that patient coming in

for three times in the past month and [ask] 'What can I do to make sure they have a safe transition and not end up back in the ER?'" she explains. "Let's allow them to focus on that rather than the more administrative pieces."

The future of healthcare will include technological solutions to help with care transitions. Automated processes and data-driven answers will change the workload, Calheno-Hill predicts.

"No one should be operating the same way today as they were pre-pandemic, or even last year at this time," Calheno-Hill says. "You need to use data to identify where challenges and opportunities are. Investing in tools that leverage those technologies is key." ■

More Patient Input Needed for Healthcare Guidelines

By Melinda Young

As healthcare enters the post-pandemic period, many healthcare organizations are making long-term changes to processes and policies. Some tactics used during the COVID-19 surges might be useful for ongoing healthcare practice.

Just as health systems continue to move toward patient-centered care models, they also need to consider engaging patients and their caregivers in the process of developing new policies, guidelines, and methods for improving care transitions and care management.

"As we're moving toward recovery from the pandemic, engaging patients and caregivers is important as we figure out which changes should remain out of the things we've implemented during COVID," says **Sharon Straus**, MD, FRCPC, MSc, HBSc, head of medicine at St. Michael's Hospital and director of the Knowledge Translation Program in Toronto. "We want to make sure patients feel valued and their input is valued. Ultimately, it involves optimized clinical care, and if they're not part of the process, then why are we doing it? It's like devaluing them if we're not engaging them adequately."

Straus and colleagues studied the Patient Engagement Evaluation Tool (PEET) and highlighted a practical way to engage patients, assess the quality of their activities, and include their input.[1]

"The tool doesn't take a lot of time to use, and it can inform us on a variety of patient activities," Straus explains. "We tested different ways of engaging patients in that research process [before] COVID. We found it to be a really useful tool."

Practical Patient Engagement

PEET was used with the Canadian Task Force on Preventive Health Care during guideline development. But it also could be used by guideline developers worldwide, including the U.S. Preventive Services Task Force.

Straus and colleagues tested two versions of PEET: one with six items and the other with 12 items. Both worked equally well, Straus says.

"We encourage people to use the six-item version," she adds. "The tool assesses engagement and whether it is successful across a variety of domains, including trust, respect, fairness, competency, legitimacy, and accountability."

Each person who completes the tool reports whether they feel respected and if the process was fair and legitimate.

For example, PEET includes these questions:

- To what extent did you feel comfortable contributing your ideas to the engagement process?
- To what extent did all participants have equal opportunity to participate in discussions?
- To what extent did you clearly understand what was expected of you during the engagement process?

The goal is to obtain patients' input to develop new guidelines in a way that is helpful and meaningful.

"If we're not spending sufficient time developing the partnership, it can be tokenism," Straus says. "At the onset of a project to interpreting and disseminating the data, patients are heard."

Any time a case management team or health system decides to create a policy, new practices, or program, they can use PEET to ensure patients are engaged and part of the development process.

"Case managers can read the tool and get answers," she says. "They can

use it at different points along the way."

For instance, clinicians can use PEET to see if patients are engaged in a process initially, and then six months or nine months down the line. It can be used throughout a process.

"You can use the tool and think about how we're engaging patients in so many different activities now," Straus. "You can use it to tweak strategies when patient engagement is not optimal."

Patients Reported Trust, Respect

For example, the tool was used to evaluate the effectiveness of geriatrician-led models of care.[2] Patients, caregivers, geriatricians, and policymakers were involved in the process. They provided input on a review of the comparative effectiveness of geriatrician-led models of care across healthcare settings. A study of their engagement revealed patients and others involved in the process felt engaged in all activities and reported levels of trust, respect, and feelings the process was fair and legitimate.

Investigators found patients selected different outcomes than those selected by researchers or policymakers. This influenced their engagement and the process.

"You can see how engagement of the patient can change things," she explains. "It goes back to the accountability piece, where we need to make sure when we're doing these projects that we're held accountable and we don't engage patients for the sake of engaging patients."

Leaders need to ensure patient feedback is heard and incorporated into process and policy changes.

"There's no quicker way to disengage people than to bring them together for an exercise and then not including any of their feedback," Straus says. ■

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Care Coordination, Value-Based Care, and Reducing Medicare Spend

By Jeni Miller

Over the last several years, providers in the United States have invested in value-based care.

Value-based care, according to **Rebecca Perez**, MSN, RN, CCM, senior manager of Education and Strategic Partnerships for the Case Management Society of America, can be defined as a "healthcare delivery framework that incentivizes providers to focus on the quality of care delivered instead of the volume of care delivered."

With this model, providers are compensated based on patient outcomes, reduced disease burden, and evidence patients live a healthier life while following evidence-based guidelines.

"There are a variety of reimbursement models that require the demonstration of quality using metrics and analytics," Perez explains. "However, some providers are challenged with the collection of metrics and analytics as they lack the needed technology."

Incentivizing Providers

Insurers and CMS have encouraged providers and health systems to adopt value-based care to lower healthcare costs and increase competitive positioning.

"Some insurers threaten to reduce reimbursement or exclude provider networks if they do not adopt value-based care," Perez says. "CMS has been pushing value-based care to reduce the practice of fee-for-service delivery as providers are paid for services regardless of the outcome. Providers are incentivized to order services because that's how they are reimbursed — the more services ordered, the higher the reimbursement."

Now, providers and health systems will be incentivized to treat patients

with care and services that will provide the best possible outcome and level of patient satisfaction.

Preventing Admissions

Investing in value-based care means a greater emphasis on the primary care physician and preventing hospital admissions and readmissions.

"The literature demonstrates that health outcomes improve when a patient has a trusted relationship with a primary care provider," Perez notes. "At the primary care level of care, patients receive preventive care and chronic care management. A focus on outpatient management of conditions and prevention measures will result in fewer hospitalizations and the need for expensive levels of care like admissions and readmissions."

Sound Physicians notes "even the most successful value-based care organizations will still have hospital admission rates of anywhere from 100 to 200 admits per thousand members. With 50% of Medicare spending happening in the acute episode of care that is initiated by that admission, a holistic approach to cost and quality must look beyond primary care interventions to the other major drivers of cost and quality."[1]

What does the "holistic approach" look like?

According to Perez, it means care is coordinated across the continuum and includes not just physical illness, but also social determinants of health and mental and behavioral conditions.

"Physical illness is complicated by the presence of social and psychological barriers," she explains. "These barriers must be addressed equally with physical illness. In fact, they may be the priority over physical illness because disease burden may not be impacted unless the patient has social and psychological stability."

Caring for the whole person is becoming more and more important, too, as life expectancy in the United States continues to increase, with many people living longer with chronic conditions.

Caring for Medicare Population

As the country's population trends older, the Medicare population is larger as well — and chronic, long-term illness becomes more common.

Case managers and care coordinators may need to focus on ways to better manage Medicare spend while also enhancing patient care.

One thing to keep in mind, Perez notes, is "Medicare beneficiaries with chronic conditions utilize the majority of healthcare resources with admissions, readmissions, skilled facility placement, polypharmacy, and other, more expensive outpatient services."

Properly navigating the case management process for this population reduces costs and makes a difference in patient care overall.

"The case management process begins with an assessment for challenges in illness management, social, and psychological, then a plan of care is developed to address any challenges and mitigate risk," Perez explains. "Supporting Medicare beneficiaries to develop a trusted relationship with their primary care provider and supporting outpatient management of their conditions will reduce admissions. Not all admissions will be prevented, but with effective transition management and care coordination, case managers can implement a plan to prevent readmissions. Transition management and care coordination are foundational case management activities that will result in improved outcomes and patient satisfaction."

Regardless of payer, case managers can help boost patient care across the board, Perez says, because "care coordination is an important activity for quality patient care and a foundational function of case management: providing the right care at the right time for the right person."

As case managers work with patients to support primary care provider relationships, advocate for needed care, and educate patients to learn self-management, patient care overall will be enhanced regardless of the healthcare setting or payer, Perez adds. ■

REFERENCE

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COMING IN FUTURE MONTHS

- Home monitoring program helps maintain hospital capacity
- Mnemonics as a case management tool
- Community collaborations next wave of innovation in healthcare
- How to improve utilization management

HOSPITAL CASE MANAGEMENT

CE QUESTIONS

1. **Patients older than age 50 years who were served by a safety-net hospital reported which experience with telehealth?**

   a. They are less likely to access video telehealth options and face barriers to owning smartphones and/or internet access.
   b. Most prefer in-person visits.
   c. They face fewer obstacles to owning video call technology.
   d. Family members help patients access telehealth visits more than in-person visits.

2. **Which group faces the greatest rate of maternal mortality during or soon after pregnancy?**

   a. White women
   b. Hispanic women
   c. Asian women
   d. Black women

3. **Moms2B, a program that helps women through pregnancy and after they give birth, has:**

   a. reduced maternal mortality rates by 50%.
   b. increased prenatal care visits by 75%.
   c. decreased rates of preterm delivery and infant mortality.
   d. resulted in twice as many women opting for hormonal birth control and spacing births by two years instead of one year.

4. **When case managers and health systems develop new policies and practices post-pandemic, they should include:**

   a. engagement and input from patients and caregivers.
   b. the staff's level of burnout and commitment.
   c. the healthcare organization's overall mission and principles.
   d. the population health of the organization's community.

5. **Patients who had COVID-19 are at increased risk of:**

   a. lung cancer.
   b. cardiovascular disease.
   c. blood disorders.
   d. diabetes.

6. **What is a potential solution to staff shortages and capacity issues?**

   a. Hire more temporary staff until the pandemic ends.
   b. Repurpose hospital space to allow for more inpatient beds.
   c. Offer staff bonuses for staying more than five years and create a post-acute ward for people who need more supervision but do not need 24/7 nursing care.
   d. Use technology to improve workflow and processes and to allow healthcare professionals to operate at the top of their license.

7. **What can complicate physical illness?**

   a. Psychological barriers
   b. Lack of access to primary care
   c. Lack of transportation
   d. Insurance issues

8. **Which is not one of the three moments in time that an estimated date of discharge (EDD) should ideally be recorded?**

   a. Within 24 to 48 hours of admission
   b. Two days from the first recorded EDD
   c. At least 24 hours before discharge
   d. Within hours of discharge