Episode 2 - Pharmacy Driven Population Health

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Sponsor: The Ohio Chapter of The American College of Physicians

Episode Summary:
In this episode of Everyday Medicine, hosted by Christopher Chiu from The Ohio State University's Division of General Internal Medicine, lead pharmacist Kelli Barnes discusses the role of population health in primary care. Kelli shares insights from her recent talk at the American Pharmacists Association annual meeting, explaining the definition of population health, its importance, and the barriers faced in its implementation. She highlights the interdisciplinary approach needed, particularly the integration of pharmacists in care teams, to improve chronic disease management and patient outcomes. Kelli also outlines a six-step process for population health management and provides a detailed example of how OSU successfully manages uncontrolled diabetes among its patients. The episode concludes with a discussion on the financial sustainability of population health initiatives and the future of integrating pharmacists within primary care settings.

Key Topics:
1. Population Health Overview and Pharmacy Role:
- Exploring the concept and importance of population health.
- Discussion on the Triple Aim framework.
- Pharmacists as integral members of the healthcare team.
- Strategies for pharmacy-led interventions.

2. Six-Step Process for Population Health Management:
- Identifying a Care Gap: Recognizing areas needing improvement, like guideline changes or patient feedback.

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- Defining Your Patient Population: Utilizing EHR data and other methods to identify relevant patient groups.
- Risk Stratification: Prioritizing patients based on their risk level or resource availability.
- Implementing an Intervention: Designing interventions that are straightforward and broadly applicable.
- Engaging Patients: Choosing effective communication methods for patient engagement, such as phone calls or patient portals.
- Measuring Results: Monitoring outcomes to assess improvement and refine strategies.

3. Case Study - Managing Diabetes:
   - Application of the six-step process in diabetes management.
   - Impact on patient A1C levels and cost savings.

4. Sustainability and Value-Based Payment:
   - Transition to value-based payment models.
   - The role of cost-effective interventions in sustaining population health initiatives.

5. Key Takeaways:
   - The essential role of pharmacists in population health management.
   - The effectiveness of a systematic, team-based approach in improving patient care.

Transcript:
Transcript has been edited for clarity

[00:00:00] **Christopher:** Welcome to Everyday Medicine, a podcast from the Division of General Internal Medicine at The Ohio State University. This podcast is focused on primary care and aims to provide current information to medical professionals from local experts in Ohio. We're also graciously sponsored by collaboration with The Ohio Chapter of The American College of Physicians. I'm Christopher Chiu, Director of Education for our Division. I have Kelli Barnes with me here. Do you want to introduce who you are and what you do in our division?

[00:00:28] **Kelli:** Definitely. So I'm Kelli Barnes. I'm our lead pharmacist in general internal medicine. And so we have a team of pharmacists embedded in our clinics and we do a lot of primary care. So chronic disease management, transitional care management, and then some population health.

****Note:** Kelli Barnes has moved on from the Division of General Internal Medicine and is now the Program Administrator in Experiential Education for OSU's College of Pharmacy.**

[00:00:43] **Christopher:** And the reason why I have you on the episode is because I learned that you had a recent talk down at a conference. Do you mind explaining exactly what this talk was and what the conference you went to?

[00:00:53] **Kelli:** So it was the American Pharmacists Association annual meeting. So it brings pharmacists from all different areas of practice, community pharmacy, ambulatory care like we do inpatient pharmacists, and there's all different topics. So clinical topics and more like practice management or operations types of topics.

[00:01:10] So I gave a talk on population health. which is pretty timely because we're seeing a lot of kind of change in practice. And there are pharmacists doing a lot of population health and we've talked about how that might work in different ideas for that and stuff like that.

[00:01:23] **Christopher:** Awesome. I think there may be some definitions people may not know. What exactly is population health?

[00:01:28] **Kelli:** So population health has been around, now for 20 years, but really has been a focus, I would say, for the last 10 to 15. When it was first introduced, they talked a lot about population health being basically the health outcomes in a group of people, including sort of the distribution of those outcomes among the group. And so, it was introduced in that shift to thinking more about the quality of care or the value of care that was provided instead of just the volume of care that was provided. And so we saw it introduced in the early 2000s and then I think it really came into focus with the introduction of the triple aim, which was in 2008. And it's a part of that triple aim, which is really just thinking about how do we improve the health outcomes for the whole population or for all of the people in whatever population you define.

[00:02:14] **Christopher:** Gotcha. I know the answer to this, but why is this important?

[00:02:18] **Kelli:** Yeah, good question. So I think, when we saw the introduction of the triple aim, there is actually, if you take a step back, always talk about the journey about how we got here. So In the early 2000s, there was several books published by the Institute of Medicine that talked about medical errors. And they talked about 98,000 (preventable) medical errors causing deaths each year. And then with that, they were saying it's not obviously because bad people are working in healthcare, but instead because good people are working in bad systems and there was this transition to doing a better job, and they called it crossing that quality chasm or redefining how we provided health care. And again, thinking about are we doing things that do a better job taking care of our patients instead of just the number of patients that we're seeing?

[00:03:04] **Christopher:** Gotcha. So as we move forward in our discussion, like what are other things, do you feel like we need to notice at the stage on this discussion?

[00:03:11] **Kelli:** So I think I, when you think about the definitions of population health, so population health is a big broad term. And when you think about population health, there's a lot that goes into it. So medical care is one of those things, but there are other things like environmental factors and social determinants of health and all different types of things that can affect the overall population health. A lot of times when we talk in medicine where we focus more on population health management or population medicine, which is really focused on those medical determinants of population health. And so hopefully I don't mix that up too much today. But I do think we usually focus more on the population management.

[00:03:51] And I think as medical providers, that's where we make the biggest impact or we think we make the biggest impact, but we have to keep in the back of our minds. When you think about population health, it's a bigger picture. A lot of times it takes partnerships with other stakeholders. You're thinking about researchers and policy analysts and policy makers and leadership and things like that.

[00:04:09] **Christopher:** Are there other barriers we need to think about? So you guys heard about a couple of social determinants of health. Are there other main players that we have to think about in terms of barriers?

[00:04:17] **Kelli:** I think barriers. So when we think about where we are barriers to population health, there's a lot of things, right? So there's the time, the sustainability or the payment for it. We're going to focus. There's a lot of things we can do to improve the health of our patients, they have their own barriers to care, and so I think that's where you start to think about having an interdisciplinary team. We've seen that shift over the last 10 to 15 years, too, where you need your social workers, behavioral health specialists, patient navigators, pharmacists, nurse care managers. I think you have to have a good team to improve population health.

[00:04:51] **Christopher:** Your expertise is actually within the pharmacy portion of the team. How are ways in which we can see pharmacy help us in this situation?

[00:04:57] **Kelli:** Yeah. So when you think about population health implementation, one of the things that's really important is having that care team and then also having the implementation team. So when you think about the implementation team, those are the people who are going to drive change, spread change, and spread the operations of population health. I do think pharmacists are really positioned to be what they call sort of the system integrator.

[00:05:19] So what the system integrator would do is they would identify the purpose. So what are we trying to accomplish and then help to communicate that purpose and then also help to disseminate like quality improvement or changes in the process. And I think pharmacists are well positioned to do that because we have the clinical side and understand like what the intervention should look like, how we communicate with patients, those sorts of things.

[00:05:43] And then we're, Typically positioned with a group of providers, and so we can help spur the implementation. So the providers obviously very busy seeing patients responding to patient messages, those sorts of things. And hopefully we can help with that, but then also help with just the overall process of it.

[00:05:58] **Christopher:** Gotcha. So we've talked about process a couple times. Can you give me a better specification of what the overall looks like? And if you want to include an example on how we've implemented it here or other people might implement it.

[00:06:09] **Kelli:** Yeah, absolutely. I always say we have a six step process for population and health management within our practices. And I'll just briefly talk about each step.

[00:06:18] When we look at the six steps, the first is identifying a care gap.

[00:06:22] The second is identifying and defining your patient population.

[00:06:25] The third is considering risk stratification.

[00:06:28] The fourth is implementation and thinking about your intervention and how you're going to implement that.

[00:06:33] The fifth is engaging patients.

[00:06:34] And then the sixth is just measuring your result.

[00:06:36] And I do, when I talk about these steps, I think about them in a circle. So whenever I'm thinking about population health management, really I think about the fact that it's got to be a continuous

improvement type of process. So the first intervention you implement is not going to be the most efficient and the most effective but you're over time going to refine that intervention and continue to use it. When you think about identifying your care gap, we most commonly identify care gaps a number of different ways. So one could be changes in guidelines or changes in best practice recommendations.

[00:07:07] So all of a sudden what they're saying we should do for our patients has changed and we want some systematic way to make sure we spread that to our patients. Another way we usually identify care gaps is from like patient experience of care data. So our patients sometimes tell us this is where we need to improve.

[00:07:22] So those are examples of how you would identify a care gap. Then you have to think about identifying your patient population and really defining your patient population. That's typically done by thinking about who you're responsible for. A lot of times in our practices, that would be your patient panel.

[00:07:37] But sometimes, you'll see health plans, they'll define their population as everybody that they are paying for their care for, those sorts of things. So it depends on who you're responsible for. Typically, then, when you want to define and identify that population, you have to have a way to find them.

[00:07:51] So a lot of times that's with EHR reporting and pulling things out of the electronic health record. But sometimes that can be by surveying the clinical staff. So sometimes we'll use risk scores that are available in the EHR, but we know one size doesn't fit all for our patients, and so we'll adjust those risk scores. The physician or the nurse or someone will adjust the risk scores based on what they know about the patient and then sometimes we survey patients. So we've seen that with HIV prep. We don't do a great job collecting social determinants of health in the chart. We need that information. So we'll survey patients to find that information.

[00:08:24] So that's how you define your population. You identify them, then you have to think about risk stratification. So you typically risk stratify for one of two reasons. One because It's necessary for your impact. You don't need to provide the care for all of your patients, but only a subpopulation of the patients.

[00:08:40] That would be a time when you might risk stratify. The other time you would risk stratify is when you don't have enough of your personnel or your team to take care of everyone and you find those at the highest risk or those with rising risk. Then you implement your intervention. Typically, I would say interventions for population health management are best when they're very black and white, or they're pretty easily applied to a large population.

[00:09:01] If they're more gray or patient specific, that's probably better served with traditional visits and healthcare and things like that. Engaging patients, so you have to think about when can you reach the patient. How do you reach the patient? Are you going to use the phone? Are you going to use the patient portal? There's obviously pros and cons to both and then tracking your outcome. Whatever your care gap was that you identified, you obviously wanted to see improvement there. So you're going to track that over time. And then, like I said, it's a continuous process that you pilot and implement.

[00:09:27] **Christopher:** Gotcha. Within what we've done here at OSU within our Division of General Internal Medicine, can you give me an example of what exactly that looks like so that other people can apply, see how that was applied?

[00:09:37] **Kelli:** So I think we're pretty advanced in our population health management. We've been doing it for 10 to 12 years. One of the easiest I think probably to describe is our work with patients that

have uncontrolled diabetes. So obviously the care gap is uncontrolled diabetes. We defined our patient population using basically finding those patients that have diabetes listed in their chart. We can identify that very easily in the electronic health record.

[00:10:00] So we can run that registry or list of patients. We've decided to risk stratify within general internal medicine, so we focus, our pharmacy team focus on those patients with A1Cs above nine. The other place we risk stratified was really to find those patients who have been lost to follow up or haven't had a visit in the last year or haven't had an A1C in the last year.

[00:10:17] So we took the whole population of diabetes risk stratified into those two groups. Our intervention for those patients with A1Cs above nine is we typically get referrals to pharmacy to work with them closely, maybe every two to four weeks. And then for those patients who haven't been seen, we actually give those lists to our schedulers to reach out and say, Do you want to see your PCP? Let's get you scheduled. You have diabetes. You haven't been seen in a year. We engage the patients with, like I said, the pharmacy follow up. So we're typically doing video or telephone visits every two to four weeks, adjusting meds, enrolling them in what we call a collaborative practice agreement that allows us to adjust their meds, get them under control, and then we track that over time.

[00:10:53] So over time, we're watching what percentage of our patients have an (Hgb)A1c above nine and what percentage of our patients haven't had an a1c in the last year, and hoping to improve that process. The other thing I will say is you have to think about how patients enter and leave the process. In GIM, like I said, we really focus on those patients that have A1cs above 9 in our pharmacy collaborative, but for those patients as they get better controlled, we'll hand them back off to just usual care with their provider or with our nurse care managers to allow us to take on the next group of patients, again, cycling in and out.

[00:11:22] **Christopher:** And how long have we been doing this particular type of intervention in GIM and do we have data? Are we successful so far?

[00:11:28] **Kelli:** Good question. So we've been doing that specific diabetes process probably for five to six years. And we actually perform pretty well. All of our payers measure us on our percentage of patients that have uncontrolled diabetes.

[00:11:40] And we time and time again, are usually in those top target performance in that area. So I think it's pretty effective and we've done this for a long time. Actually, our first population health management project that we implemented was 12 to 13 years ago now, so I think we've learned a lot about the process that helps make it successful.

[00:11:59] **Christopher:** So you brought up payers. And so I think one of the first things that other people outside OSU may have questions about implementing their own practices. Can you explain a little bit about finances, sustainability on having pharmacists doing all this work.

[00:12:12] **Kelli:** Absolutely. So I think one of the things that's really brought population health into focus is the shift toward value based payment. So 10 years ago, 15 years ago, we were basically paid for the number of patients we see. Now we've seen a shift where that's still important.

[00:12:28] There's still some fee for service payment, but now we're getting paid again based on quality performance based on risk so we see downside of risk where we have to pay money back if we don't do a good job. We get care management fees sometimes so per member per month payment based on the

complexity of patients. So all of that sort of plays itself into population health. So if you think about it, you could use population health to improve quality outcomes. You can use population health if used well to decrease cost because you're doing a better job controlling chronic disease. And so it really lends itself to that type of payment system now with that being said, it costs a lot to do population health, right?

[00:13:07] So I talked about the fact that you have to have a care team. That care team I think needs to have dedicated time to do the work or it's never going to be the highest priority of work that needs to happen. And so that costs money. And so I think you really have to think about using the right person for the right task.

[00:13:23] Maybe you don't need a nurse to just schedule a patient or you don't need a pharmacist to do other things. So you have to think about having each person on the team practicing at the top of what they can do to make it the most cost effective intervention. There was a large study from Denver Health that looked at Denver Health, a large integrated academic medical system.

[00:13:42] They're the biggest payer for Medicaid and uninsured patients in Colorado. So they took their patients and they actually risk stratified them into four different tiers. And then based on the tier that they were in, they received a different level of care. So their tier four was the highest. And those patients received like outreach, population management outreach.

[00:14:02] They received these multidisciplinary clinic visits when they came into the office and those sorts of things. What they found in 26 months is it cost them 3.9 million dollars to employ the care team to provide the care. So that's a lot of money in 26 months. But over time, they actually saved 16 million dollars by doing that.

[00:14:20] And they said their biggest cost savings were with those tier four high risk patients and decreasing their hospital utilization. So I think it can be self sustaining, but you have to really set it up in the most cost effective way as possible.

[00:14:33] **Christopher:** Awesome. I appreciate the time you spent with me today. Anything else that you would want our audience to understand or know about population health before we sign off?

[00:14:41] **Kelli:** I think the biggest thing it's the way of the future. I think we're all going to have to get comfortable with those skills. And so I think it really starts with that identification of a care gap. So what needs to improve?

[00:14:53] I think every clinician seeing patients has to be able to identify those gaps and then thinking about who on the team can make something happen and implement it and do it in a cost effective way and improve the care of our patients. The other thing I would say is we talk a lot with population health about the cost and improving our performance and things like that. But it all comes down to how do we improve the care of our patients and how do we do that for everyone? So I talked a little bit about the triple aim, but there's actually the quadruple and the quintuple aim that talks a little bit more about the work-life balance of the providers that are providing the care and then the health equity for the patients that we're providing care to.

[00:15:28] And I think those have to be focuses when we're thinking about population health as well.

[00:15:32] **Christopher:** Any remaining take away things that you want us to know about.

[00:15:35] **Kelli:** No, I think just really thinking about, you know, you can definitely capitalize on what you're doing with implementing pharmacists within your clinic. So a shameless plug here, but I do think in addition to seeing patients and improving the care of our patients, we're really well positioned to take this type of practice to the next level. And we're lucky in at Ohio State, we have a lot of pharmacists embedded in primary care. That's not the way it is everywhere. And so I hope to spread that message more broadly.

[00:16:05] **Christopher:** Awesome. Thank you so much for talking to me today. And yeah, hopefully we'll have you back on to talk about many other things that you're doing for GIM and within pharmacy.

[00:16:13] **Kelli:** Absolutely

[00:16:14] **Christopher:** Thank you for listening to another episode of Everyday Medicine. Please consider subscribing to our feed on your favorite podcasting platform. So you don't miss out. You can get all our show notes and transcripts soon from our division webpage at https://medicine.osu.edu/GIM. Have a great day.