

Supplement 3. Common Cited Barriers to Completion of PIMs among Providers in Academic and Non-Academic Settings

Barrier type	Code definition	Example quotations	
		Academic settings	Non-academic settings
Administrative	Burden introduced by PIMs	“We are trying to do our best. But when more paperwork is involved, it’s usually not helping... So I’m not about it.” [ID 21, specialist, children’s hospital]	“It’s way too much to do the paperwork... There have been a couple times where we have thought about it and we’ve looked at this and said, ‘Oh my God...’ By the time I do the paperwork, I can do a project.” [ID 2, generalist, group practice]
Attitudes	Provider attitudes that impact QI	“I think some of the nursing staff are stuck in the old days. They don’t want to change.” [ID 12, specialist, children’s hospital]	“When they were giving the feedback... I would log in on the computer screen, put my thing on mute, and all I did was, you know... ‘thank you’ at the end. I didn’t learn anything from it”. [ID 2, generalist, group practice]
Awareness	Lack of provider awareness of PIM processes	“We haven’t [tried to get credit for our own QI projects] because I don’t know how to do the paperwork for it on the ABP website.” [ID 12, specialist, children’s hospital]	
Benefits	Lack of tangible benefits to patients, practice, or profession	“If I was in a small private practice... we’d be stuck doing things like what’s available through the website, which may not be useful... It would have no adoption process across the facility... Those PIMs don’t generate real change.” [ID 21, specialist, children’s hospital]	“I did not actually gain anything from [the breastfeeding module]... To be honest, I did it for the credit... I didn’t collect data from my own office. I just kind of made up the data.” [ID 16, generalist, group practice]
Clinical	Limitations posed by clinical resources	“So we have resources... but I think it general it’s also true that they’re spread pretty thin. And there are a lot of projects going on.” [ID 11, specialist, children’s hospital]	“Everybody was kind of on a different cycle of PIMs, so not everybody was due to do it at the same time. Again, people tend to leave it for the last minute. You’re kind of left on your own [to do a PIM].” [ID 3, generalist, FQHC]
Cost	Monetary cost associated with PIMs	“It has the potential to be financially impactful because you have to pay for them... If you want to submit one of your own you have to pay them. [ID 4, generalist, children’s hospital]	“I mean, I work hard... To then have to turn around and do activities to then have to pay money on top of everything else is one way to get burned out.” [ID 10, generalist, group practice]

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EHR	Issues introduced by EHR systems	“I think that a lot of the programs seem to have been built by people who don’t actually practice medicine... The notes become so cumbersome that no one reads the notes. They’re useless. They’re a complete waste and you don’t get any viewing credit for your assessment and plan.” [ID 8, specialist, group practice]	“I suppose, if you thought of something like vaccine rates... you could do that as a department and look at what your vaccine rates are. But a lot of the data collection that’s done through our electronic system is not necessarily totally accurate.” [ID 3, generalist, FQHC]
Institutional	Limitations posed by institutional (e.g., hospital) resources and policies	“How much support you get also really depends on how much you’re aligning with the current priorities of the hospital.” [ID 11, specialist, children’s hospital]	“The truth is, I don’t have the ability to change at these hospitals. I’m not someone that can change policies and procedures. So what’s the point of doing [PIMs], you know? They’re set up in a certain way to change in institutions. The practice of doing things, and I’m just not a decision maker to be able to do that.” [ID 20, generalist, private practice]
Patient	Limitations posed by patient factors	“Sometimes it’s not that easy... I have low-income, low-SES families that I ask them to complete something and then they don’t bring it back.” [ID 13, specialist, group practice]	“It takes away too a little bit I think from the relationship building we’re doing with our patients... Having them fill out papers and whatnot and collect data from them and ask them questions when they’re there for a particular reason... Especially adolescents. They just want to get in and get out.” [ID 10, generalist, group practice]
Redundancy	PIM activities that replicate existing clinical practice	“We’re already doing the work at work. And now we have to like repeat what we’re doing for somebody else... Why do I have to prove I’m already trying to improve that quality of work I’m doing in my clinic?” [ID 13, specialist, group practice]	“To be honest with you, those were things that we already did or do in the office, so it wasn’t necessarily new to our workflow. I kind of did it because it was already part of what we did, and it would make it easy to collect data and move on with it.” [ID 3, generalist, FQHC]
Relevance	Lack of relevance to providers or practice	“I think those in academic medicine, it’s just forcing people to do something because they have to rather than having them do their jobs and reporting what they’re doing.” [ID 7, specialist, children’s hospital]	“There was no connection... with either the people in my practice or my patients. It was just data... It was data collection. And I don’t feel there was any quality improvement and the way I practiced from that.” [ID 2, generalist, group practice]

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Time and effort	Limitations posed by time and effort constraints	“Most of the projects are pretty time consuming. So if I was going to contribute, I would really want to participate and contribute. It's not something that I really feel passionate about and want to invest ... I want to have time at home with my kids.” [ID 17, generalist, children’s hospital]	“In reality, to add on another thing to the workday is kind of crazy. I almost find it more efficacious to do the prep questions and submit those, or that kind of stuff, rather than do these projects that actually interfere with your workday.” [ID 3, generalist, FQHC]