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Stakeholder perspectives on facilitators and barriers to implementing a zero-dollar copay program for chronic conditions study

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Abstract

Background Type 2 diabetes mellitus (T2D) remains a pressing public health concern. Despite advancements in antidiabetic medications, suboptimal medication adherence persists among many individuals with T2D, often due to the high cost of medications. To combat this issue, Blue Cross and Blue Shield of Louisiana (Blue Cross) introduced the $0 Drug Copay (ZDC) program, providing $0 copays for select drugs. This study sought to explore barriers and facilitators to the successful implementation of Blue Cross's ZDC program (updated version).

Methods Focus group discussions and interviews were conducted with health plan leadership, health coaches and providers who participate in the health plan organization's healthcare quality improvement program. Focus group discussions and semi-structured interviews were conducted between October 2022 and July 2023. Discussion guides were developed collaboratively and tailored to each participant group. Interviews were recorded, transcribed and analysed using NVivo® qualitative analysis software. A descriptive, qualitative analysis was conducted, resulting in the identification of seven codes and subsequent candidate themes.

Results In total, 15 participants were interviewed: 6 were Blue Cross administrators, 5 were health coaches and 4 were Quality Blue providers. Overall, participants had positive feedback on the ZDC program and perceived that it has significant benefits for patients and the health system but could be improved, and four themes related to implementation barriers and facilitators, effectiveness and potential areas of improvement were identified: (1) the ZDC program reduces friction for patients, prescribers and the health system; (2) the program is aligned with the values of health systems, insurers and providers, facilitating implementation success; (3) expanding coverage (drug classes and conditions) and education (for providers and patients) could maximize program benefits; and (4) coronavirus disease 2019 (COVID-19) did not negatively impact program administration because the $0 copay was programmed at the benefit level.

Conclusions The ZDC program aligns goals and can benefit patients, providers and patients. The program can have the largest potential if it is expanded to include new medications and new conditions, and if there is more education for patients and providers. Regardless of challenges, reduced-copay programs have the potential to improve medication adherence, improve HbA1C control and improve overall health outcomes.

Trial Registration This study was approved by the Tulane University Institutional Review Board, IRB #2020-1986.

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Introduction

Type 2 diabetes mellitus (T2D) remains a major public health issue in the United States and a significant concern for states such as Louisiana, where mortality rates of diabetic complications are high [1]. Severe diabetic complications include blindness, kidney failure, heart disease, stroke and premature death [2]. More so, the healthcare costs of diabetes are incredibly high, estimated to be about $413 billion in 2022 [3]. However, improvements in antidiabetic medications have enabled people living with T2D to improve their glycemic control, develop fewer complications and decrease total healthcare costs. Despite improvements in available medications and therapeutic advances, many people living with T2D do not take medications as prescribed, with rates of suboptimal adherence around 27% in this population, an increase since 2017 [4].

Medication adherence is a complex topic, and more than 200 factors influence levels of adherence, including lack of understanding of the T2D illness process, the importance of medication, lifestyle challenges, understanding how to take medications, side effects and economic concerns [5–7]. Of all barriers to adherence, patients report the high cost of medications as one of the most difficult – one study found that cost-related non-adherence impacted 17.6% of US adults with T2D under 65 years of age [8]. Non-adherence and non-persistence–persistence to antidiabetic medicines is associated with ineffectiveness of treatment, disease progression to poor outcomes, disease complications, hospitalizations and re-hospitalizations, emergency department visits and death [9, 10]. Therefore, it is essential to combat cost-related non-adherence for antidiabetics.

National policy and local programs have attempted to improve medication adherence in many chronic conditions. Examples include co-insurance programs, education programs, counselling, support groups and medication reminders [11, 12]. However, these interventions may not improve adherence in practice and may be effective in the short term but not in the long term [11, 13]. Therefore, it is essential to assess the impact of individual programs and understand barriers or facilitators to program success.

Blue Cross and Blue Shield of Louisiana's (Blue Cross) $0 Drug Copay (ZDC) program is one example of a statewide program that combats cost-related medication non-adherence. Blue Cross' ZDC program offers a $0 copay (with deductible waived) for certain drugs used to treat certain chronic conditions such as diabetes and hypertension. Although earlier program versions required enrolment and/or engagement in the health plan's disease management, Blue Cross expanded the program in 2020 to include all fully insured members with an eligible benefit plan, regardless of whether they participate in disease management (the current version is referred to as 3.0) [14].

This study aimed to understand barriers and facilitators from the health system perspective to the successful implementation of ZDC 3.0 in improving care for patients with chronic disease.

Methods

This study followed the Standards for Reporting Qualitative Research (SRQR) Guidelines for reporting on qualitative research [15]. It used a narrative qualitative approach to assess barriers and facilitators related to the implementation of the ZDC program through focus groups and interviews. Focus groups were held with health plan leadership (leadership) and with health coaches working with members in the health plan's ZDC disease management program (coaches). Interviews were held with primary care providers (PCPs) involved in Blue Cross' healthcare quality improvement program.

This qualitative study is part of a multi-method approach examining the impact of the larger Louisiana Experiment Addressing Diabetes-ZDC (LEAD-ZDC) study, which employs a natural experiment design using claims data and electronic health records along with qualitative studies. The LEAD-ZDC study utilizes sequential methods, and the quantitative and qualitative sections of the study inform each other [16].

Qualitative interviews and focus group discussions with Blue Cross Leadership (leadership), who designed the program, health coaches (coaches) who provide health coaching support to people with T2D and PCPs who are part of the Quality Blue program (which rewards providers for improving patient health outcomes) were held between October 2022 and July 2023. Leadership and coaches participated in focus group discussions (FGD), while providers participated in individual interviews. In total, 15 participants were part of the study.

Purposive sampling was used to identify participants to ensure they were familiar with the ZDC program and had the knowledge to answer questions. Lists of potential participants were compiled in collaboration between researchers and the study steering committee

[17]. Researchers from the ZDC program invited participants via email. Chain referral techniques were also used to achieve appropriate sample sizes using references for appropriate domain knowledge. Participants were sent an information document on the study and the consent process before the interviews, and their verbal consent was documented. Each interview was attended by the researchers and participants. The Tulane University IRB Committee approved the study under application no. 2020–1986.

FGD and Semi-Structured Interviews

Discussion guides for the FGDs and interviews were drafted by the primary researchers and revised with input from Blue Cross administrators, healthcare providers, academic researchers, patient partners on the LEAD-ZDC steering committee and members of the larger network in which the LEAD-ZDC project sits that includes quantitative researchers. The guide was developed as part of the multi-method approach in view of preliminary quantitative results from a study analysing the impact of the ZDC program on medication adherence using health plan claims data. Each group of participants had a separate guide to obtain information pertaining to that category of participants. For example, leadership was asked about the program's creation, while coaches were asked how their patients engaged with the program. The interviews were facilitated by three researchers with PhD-level training and experience in qualitative research. None of the researchers had separate relationships representing a conflict of interest with any of the interview participants. All interviews were held over Zoom and lasted between 30 min and 1 h. Each interview was recorded and transcribed. Transcripts were de-identified and reviewed by the researchers for accuracy.

The transcripts were uploaded into NVivo® qualitative analysis software (QSR International Pty Ltd. Version 11, 2017, Melbourne, Australia) for data management. Descriptive, qualitative analysis using a mix of inductive and deductive coding was applied, and two qualitative researchers used an open coding technique to develop initial codes and refined codes to categories and eventually candidate themes. Preliminary candidate themes were identified and discussed among the research team and patient partners as part of the steering committee process. Researchers used peer debriefing, memo-ing and discussion to move the thematic analysis from initial findings to finalized themes [18]. Results were presented to quantitative researchers to ensure a larger audience could understand how they were presented.

Results

In total, 15 participants were interviewed; their characteristics are listed. Of the 15 participants, 6 (40%) were Blue Cross administrators, 5 (33%) were health coaches and 4 (27%) were Quality Blue providers; 9 of the 15 participants (60%) were female.

Participants were asked to reflect on their experiences with the ZDC program and any barriers or facilitators they noted. They discussed key factors such as benefits to the health system and patients, the impact of COVID, their knowledge of the program and ways to improve the initiative in future iterations.

A total of four themes related to implementation barriers and facilitators, effectiveness and potential areas of improvement were identified.

Theme 1: The ZDC program reduces friction for patients, prescribers and the health system

Leadership participants remarked on the program's benefits in its current format in contrast to previous versions, where barriers to patient enrolment were evident. Currently, members are automatically enrolled in the program with a qualifying benefit plan, while past versions of the program required participants to use the disease management program and actively engage with health coaches to receive the $0 copay benefit.

> *More members are able to benefit from the program because they don't have to be enrolled in disease state management. I can't remember the exact number, but we saw a huge improvement in the number of members that were getting this benefit, Participant 1 Leadership FGD1.*
> *As a fully insured nurse, my participants are not quite aware [of the program]. It's seamless because they don't have to participate with a health coach or participate or sign up for anything, Participant 2 Coaches FGD2.*

Automatically programming $0 copays for qualifying ZDC drugs reduces friction by allowing coaches to better allocate their time to the participants who can benefit from the care management the most.

> *And I know from a staffing efficiency, especially if we had members that were well managed or were not having high utilization for inpatient or emergency room, it was real nice to have those nurses divert their time to engage those members that were having more of higher acuity, higher risk, versus just having them make a touch point with a member just to keep them active to say they're active for the drug incentive, so we can efficiently*

divert more, higher acuity members to our nurses for care coordination purposes, Participant 2 Leadership FGD2.

Participants described ZDC 3.0 program as successful because its ease of use lowers the costs of medications. Blue Cross leaders and the health coaches shared this sentiment. Interviewees felt that decreasing costs reduces friction between patients and their care teams, which may make them more likely to adhere to their treatment.

And we have a variety of strategies, right? There's no one strategy to help us improve medication adherence. I would say in the top three or four things that would impact medication adherence negatively cost would be in the, you know, top three or four, Participant 1 PCP FGD3.
Additionally, having $0 copays decreases barriers patients have in their care management.
Yeah, that's what I was going to say, what Participant 5 just said … I've known a lot of people who haven't gotten meds filled on time because they couldn't afford them, so they were spacing them out and they weren't really as effective as they could be if they were to take them every day. So, the goal would be for them to get their meds and be adherent so that the outcomes are better all the way around, Participant 3 Coaches FGD2.

One participant reinforced that the ZDC program does decrease the costs of necessary drugs for diabetes patients.

[ZDC is important] for access to medications and compliance. Those are the two biggest things, which then gives you better outcomes in the long term, Participant 1 PCP FGD5.

The system also decreases friction for providers' prescribing practices.

Now, we're having to do prior authorizations on old generics, and that process is very involved, so we send the prescription to the pharmacy, and the patient goes to the pharmacy. And the pharmacy says, "Your insurance has not approved it." "Your doctor has to send information to your insurance." So, then they call and then we try to go online to do it, but then there's a problem, and then there's a delay of two or three days, and you're waiting to find out if the drug's even approved ... so having a $0 copay would help with compliance, would help with us having to do paperwork and that sort of thing and then of course outcomes, ultimately, Participant 1 PCP FGD6.

Technological innovations in the care process can further decrease friction and make the program easier for PCPs.

And we have turned on what we call real-time pharmacy benefits. We're using our electronic health record (EHR) interface and going directly to the PBM and pulling back benefit information … we're determining really, when we write the scripts, in the office that if we can save the patient even more money, we will fire a [message] to the provider to say, "Hey, by the way, did you know that you can save the patient more money through this option? We don't want the patient going to the pharmacy and seeing sticker shock", Participant 1 PCP FGD4.
They need to have some kind of interface with our electronic medical records to show us what those copays are when we have a zero copay. So currently we use eClinicalWorks, which actually still helps us with our reporting to Blue Cross on our measures. … When I prescribe a medicine, I get either a green, yellow, or red smiley face: meaning it's preferred, red meaning it's not. And if I can, I will always choose a drug with a green smiley face, but if for a Blue Cross patient, I can get a zero, you know, then I'm going to choose that one over one that doesn't have a zero, Participant 1 PCP FGD5.
Now if there was some way that I could have been alerted to say, well, gee, the drug you're prescribing is not covered but a similar drug is, maybe I would have made a change in my practice, but to have to look and see what the patient's insurance is, then look and see which drug was on a coupon is a workflow that just doesn't work when you're already in a busy practice, Participant 1 PCP FGD3.

Participants highlighted that the program is successful in part because it is easy to implement. By including information on program drugs in the EHR systems, the provider can more easily ensure that patients have the largest cost reduction.

Theme 2: The program is aligned with the values of the health system, insurer and providers, facilitating implementation success

In addition to participants believing that the program can lead to patient benefits, the participants felt the program's implementation was successful because health systems, insurers and PCPs also value the outcomes. Participants noted that the program leads to higher quality healthcare and better patient outcomes.

We know that if you treat your diabetes and you

treat your cholesterol and you treat your blood pressure, we know from the literature that you'll cut down on heart attacks and you'll cut down on dialysis and you'll cut down on strokes. So, given that we know those things, but those are the long game. That's the stuff that you can't measure today, and certainly not with just a few years of doing the program. But those are the kinds of things that we hope to see bending the curve on the burden of chronic disease as we started talking about when this started, Participant 6 Leaders FGD1.

Participants reflected on the notion of aligning health improvement with lower costs. These participants highlight that if patients adhere to medication regimens more and manage their chronic conditions, then rates of expensive complications will also decrease. Moreover, there are financial benefits for the insurance companies.

There were care measures being associated with (patient health outcomes T2DM control), so there was revenue that could be generated to then help feed more population health efforts, by getting that revenue. We did well in that program. When the program ended, we were top tier; we were tier five, Participant 1 PCP FGD6.

Leadership noted that cost savings create higher revenue, which health systems can use to invest in future population health programs, aligning the direct and indirect benefits to stakeholders with their values.

It resonates with [providers'] mission about providing good care and cost-effectively ... I think the [insurance] plans win, right, and then we all win because care gets less expensive. There's a lot of un-successes in health care. This is a success. So, I think everyone could be like, "yeah, we can all support this", Participant 1 PCP FGD4.

Participants communicated that all stakeholders could benefit from the ZDC program. In addition to the previously mentioned benefits to insurers and patients, providers identified longer-term benefits associated with decreasing medication costs.

And kind of going back to what you said about the cost of the program too, I know we talked about what you can see immediately as a company, what you would look at. But as healthcare providers, we know that if you treat your diabetes and you treat your cholesterol and you treat your blood pressure, we know from the literature that you'll cut down on heart attacks and you'll cut down on dialysis and you'll cut down on strokes. So, given that we know those things, but those are the long game. That's the stuff that you can't measure today, and certainly not with just a few years of doing the program. But those are the kinds of things that we hope to see bending the curve on the burden of chronic disease as we started talking about when this started, Participant 6 Leaders FGD1.

Providers buy into the program. When providers agree with a program, they may be more likely to adhere to it and prescribe these medications.

This is a win for everyone, really. As I say, the patients really do win, right, because they get cheaper drugs. The providers really buy in because they know they're doing something really good", Participant 1 PCP FGD4.
So the zero-dollar copay, I'm not even sure [all providers] really ultimately aware of it, but absolutely are supportive of lower cost drugs for patients, Participant 1 PCP FGD4.

Overall, the participants commented that the ZDC program was successful because, in their opinion, the benefits have the potential to help patients manage their chronic diseases but also because incentives for health systems, insurers and providers were valuable.

Theme 3: Improving education could maximize program benefits and expanding coverage can increase the program's impact

Overall, there was still a lack of awareness regarding the details of the program. For example, multiple participants were unclear which of their patients had the ZDC benefit, or which drugs were covered under the ZDC program.

So I don't know who, you know, [ZDC] applies to and who it doesn't, and so if I tell a patient, "Oh, Blue Cross has a $0 copay program, look, take this," and then they're like, "Dr. <Name>, it's 25 bucks", Participant 1 PCP FGD4.
Yeah, and a lot of times – well, I don't know if I should say a lot, but there have – you know, there are doctors who will write a prescription and just out of habit based on, you know, what they've seen, they'll write the prescription for a brand name and the member, trusting their doctor, fills it and then takes it. So if they knew about the generic and they knew that it would be a zero-dollar copay, I think that would be beneficial, Participant 1 Coaches FGD2.

When queried on improvements or innovations for the program, qualitative study participants had few suggestions surrounding education about the program. While

EHR systems are out of the payor's control, participants found that including ZDC benefit information in the EHR can increase the impact of the ZDC prescription benefit program. While EHR integration was perceived overall as a facilitator for prescribing zero-cost drugs for patients, not all providers had that system in place.

> *I think provider engagement would be an important piece of the puzzle. Since this program has come into existence, there's been just a massive change in just the prescribing platforms in EHRs. Now if there was some way that I could have been alerted to say … you're [prescribing] this and a very similar drug gets covered, but that one is not, maybe I would have made a change in my practice, but to have to look and see what the patient's insurance is, then look and see which drug was on a coupon is a workflow that just doesn't work when you're already in a busy practice, Participant 1 PCP FGD3.*
> *Moving forward … with our ASO groups, which are our self-funded groups, I would like for them to have a broader adoption of [ZDC], Participant 2 Leaders FGD1.*

Additionally, participants overwhelmingly communicated that more self-funded groups would opt-in to the program, and for additional drugs to be added to the list of those covered without a copay. Although the ZDC program has continued to expand in the years following its inception, some groups are still not receiving the ZDC benefit.

Covered medications were another area that participants identified for expansion of the program. A significant barrier to further success noted by participants was the list of drugs eligible for ZDC. The current drug list may not be suitable for everyone, and there is not an extensive list of alternatives. Many participants also discussed that the list is not updated frequently enough, and many newer drugs are missing from the ZDC list although they are now standard practice.

> *I find that some of the barriers may be the limited choice of medications that are zero copays. And then with those choices, some of them may have side effects to certain medications. Say, for instance, like blood pressure medications for impotency in men and, I know for one, lisinopril for African Americans that produce a cough. The lack of education on the medications that they're taking is another barrier, Participant 2 Coaches FGD2.*
> *I would look to extend the program. I suspect there are probably other drug classes that this program would make sense. … As I say, we went after low-cost generics, really prevalent conditions, but this is equally important to me and I'll use an example, even a speciality med … I don't know, a patient with inflammatory bowel disease who is getting Remicade. If they don't get their therapy, you're likely to see them in the ER or admitted to the hospital, Particpan1 PCP FGD4.*
> *I mean, I find that the list of medications that are the zero- copay tend to be, you know, your older medications. There are so many new medications out there that are not on that list that sometimes, you know, some of the older medications are not as effective for members than the newer medications. So really, that would be the barrier for me, trying to get more up-to-date prescriptions on that list, Participant 4 Coaches FGD2.*

In addition to a more expansive list of eligible drugs, participants wanted to see the program expand to a broader list of chronic conditions:

> *So expand more classes and more conditions, Participant 1 PCP FGD5.*
> *I think there probably are other disease classes … where this would make sense, Participant 1 PCP FGD4.*

Theme 4: COVID-19 did not negatively impact program administration because it operated at the benefit level

In March 2020, COVID-19 disrupted many areas of normal healthcare. However, when asked about its impact on the ZDC program, respondents did not perceive that it affected program implementation because the ZDC benefit is automated for patients with qualifying conditions and a health plan that includes prescription drug benefits.

> *I don't see that COVID has given any barriers to the program. COVID is certainly responsible for barriers to a lot of other things. We have a lot more health issues from it, but I wouldn't say, in my experience, it's a barrier to this program., Participant 3 Coaches FGD2.*

In considering the impact of COVID-19, participants suggested that the way the program was administered was what led to its success.

> *We actually rolled out the 3.0 in the middle of COVID, and I think that actually made it easier because it's at the benefit level, right? And so, you don't have to, for the majority of patients, you're not having to worry about reaching out to your health coach every single month or every 3 months or 6 months or whatever the frequency is for the individual member. So, I think that COVID probably didn't have an impact at all, Participant 1 Leaders FGD1.*

Many participants described similar sentiments in these discussions. They believed that the change in how ZDC is administered – where benefits are currently automatic – means the program could run successfully even with disruptions in other health care.

Discussion

This study explored the experiences and perceptions of a varied group of stakeholders regarding an updated version of a zero-dollar copay program introduced by a health insurance organization, with specific attention to the program's implementation, design and benefits. Analysis of the qualitative data indicated that the ZDC program's perceived success was related to several factors, including alignment with stakeholder values and need, and due to the advantages of auto-enrolment that allow for more seamless implementation. The key barrier to more successful implementation was a lack of awareness or education on the program and stagnation in pharmaceutical coverage, or lack of updates to the drugs covered.

Overall, our study revealed several important focus areas to increase the effectiveness of cost-sharing programs such as ZDC. For example, participants said it is essential to ensure stakeholders buy-in to programs through program design. Implementation science literature supports this finding and recent stakeholder engagement models promote the incorporation of stakeholders in the program design phase [19]. Additionally, participants in this study reported that strong leadership can improve the success of programs through increasing communication and alignment between stakeholders [20, 21]. Participants emphasized that integration with their EHR workflow is essential for maximizing program benefits. In the current ZDC program, all eligible patients are automatically enrolled, unlike previous versions requiring health coaching sessions. Providers we interviewed noted the program would be most successful if they could easily identify drugs on the ZDC list. This is similar to other public health programs. For example, providers were more likely to use remote patient monitoring or adopt health screenings when it did not change their workload and if there are established workflows [22, 23].

While participants had overall positive views about the program, there was consensus that both providers and patients needed more education about the program. Other population health programs have run into similar challenges. For example, a study assessing patient perceptions of copay cards found that patients could benefit from awareness of the program to understand how to use their copay cards [24]. Providers reported similarly needing a better understanding of which drugs to prescribe to ensure the program had the largest possible benefit. Participants suggested this could be achieved by improving EHR systems by implementing a tool to show potential drugs. However, as this is out of the payor's control, partnerships with EHR vendors or other groups would be needed to help improve implementation. A literature review supports this idea, as clinical information systems such as EHRs are key to success in interventional tools. [25].

When programs are seamlessly integrated into existing workflows with appropriate information, as participants in our study emphasized, healthcare providers can dedicate more time to patient care rather than navigating administrative burdens [26]. This increased efficiency not only fosters better uptake to programs such as ZDC but also enhances the overall quality of patient care by allowing providers to focus on delivering personalized and timely interventions while appropriately using programs such as ZDC. Simplifying program implementation can directly translate into improved health outcomes for patients, ensuring that such programs achieve their full potential in advancing public health.

The other main feedback interview participants provided was to have updated ZDC drug lists that could be expanded to include more diseases and newer drugs and expand program eligibility to include more beneficiaries. Participants thought the program would reach its full potential with such updates. Similarly, a study on hospital readmission interventions found that newer interventions and the existing program were incompatible, and the programs needed updating [27]. Our participants also noted that having automatic enrolment in the newest version of the program helped improve enrolment, in turn increasing benefits. Other studies have examined this phenomenon and found that opt-out or auto-enrolment programs are more successful at changing behaviour. For example, one study found that opt-out participants in a tobacco cessation program were more engaged and more likely to attempt to stop smoking [32]. A qualitative study on opioid treatment programs in Rhode Island found that automatic service delivery improved post-overdose service provision [28, 29]. Designing a program benefiting all stakeholders has a higher chance of succeeding given that it engenders a universal commitment to success.

Stakeholders expressed that insurance redesigns and incentive programs can improve medication adherence. Other literature supports this assertion. Stakeholders thought that insurance redesigns and incentive programs can improve medication adherence. However, evidence to support this view is not conclusive. While a recent study found that patients with higher copayments did not fill their prescriptions at higher rates than patients with low co-payments [30], a similar program to the ZDC program in community pharmacies found that patients with zero-dollar copays for generic

medications for chronic conditions had higher medication adherence than those with copays greater than zero dollars [31]. These studies suggest that eliminating co-payments for prescriptions, such as the ZDC program does, rather than lowering them, may be more effective for increasing medication adherence. Overall, participants felt that the program achieved these goals and highlighted that the program benefits patients, providers and insurers, focusing on population health and decreasing healthcare costs. There is evidence supporting this claim – a study examining statin adherence in commercial insurance plans found that medication adherence led to lower healthcare costs for patients and the health plan [32, 33]. However, a recent systematic review found that cost-sharing programs may not improve health outcomes or decrease costs [34]. These effects are crucial for aligning stakeholder priorities in healthcare, making it important to design programs that improve medication adherence and achieve downstream outcomes.

This study had several limitations. Among these was the absence of patient perspectives, which might provide crucial insights into the factors contributing to the success of the ZDC program or identify gaps that hinder adherence; however, a second phase of the qualitative research will focus exclusively on patients and will be part of the overall study's mixed method approach. The study's external generalizability is limited, as this qualitative research was designed to explore one example of a zero-dollar copay program in relation to medication adherence and only reflects the views of our participants. Further research should identify whether the ZDC program works better for certain drug classes, if the behavioural management program improves adherence in conjunction with the ZDC program and which other factors outside of the program influence medication adherence. Additionally, while this study assesses viewpoints on potential outcomes of the program, it does not assess whether the assertions impact of the program on population health. This is being explored in other studies.

Conclusions

Our study examined barriers and facilitators from a health system perspective to an insurance-based $0 drug copay program for certain medications for select chronic diseases. Our findings underscore the pivotal role of program alignment between stakeholder groups, having clear value to stakeholders, seamless implementation, the importance of education on programs and the necessity of updating programs to account for changes in medication guidelines and the drug market. Regardless of challenges, reduced copay programs that are seamlessly integrated with health plan coverage have the potential to improve medication adherence, HbA1C control and overall health outcomes.

Abbreviations

Blue Cross	Blue Cross and Blue Shield of Louisiana
Coaches	Health coaches who run the ZDC disease management program and work with members
EHR	Electronic health record
FGD	Focus group discussion
Leaders	Health plan leadership
PCP	Primary care providers
T2D	Type 2 diabetes mellitus
ZDC	$0 Drug copay

Author contributions

E.N., L.S. and A.N.B. conceptualized the study. A.N.B., E.N., D.W., L.S., K.L. and B.M. designed the study. Data acquisition was performed by D.W., A.N.B. and E.N. D.W. and A.N.B. analysed the data, and D.W., A.N.B. and E.N. interpreted the data. All authors reviewed the refined the interpretations. D.W. and A.N.B. drafted the work and E.N., L.S., B.M., K.L., T.T. and E.P. substantively edited the manuscript.

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Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

This study was approved by the Tulane University Institutional Review Board, IRB #2020-1986. Informed consent was obtained from all individuals participating in interviews or focus groups. Participants were provided with detailed information about the study and gave their consent for their responses to be used for research purposes. All identifying information was anonymized to protect participant privacy.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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