Original Research

Transitioning to Value-Based Diabetes Care: A Call for Action Derived from Primary Care Providers in South Florida

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Abstract

Background

In Florida, 2.4 million people have diabetes and 5.8 million are pre-diabetic. Not only has the prevalence of diabetes doubled over the past 20 years from 5.2 in 1992 to 11.2 in 2014, but the Centers for Disease Control and Prevention expects 1 out of every 3 adults will have diabetes by the year 2050. In addition, in every year since 1996, Florida well exceeds the national levels in terms of prevalence of diabetes, and the gap is getting wider. A study was conducted to gather information from key physician stakeholders as to how to address unmet needs of patients at risk for, or whom already have, diabetes in a tri-county region of South Florida where the prevalence of diabetes is very high.

Objective

The goal was to catalyze innovation and generate solutions for high quality and affordable diabetes care by convening community physicians in South Florida and querying them about solutions for delivering value-based care.

Methods

A physician-led task force of community physicians was convened to uncover unmet needs in the diabetes care continuum, identify areas of improvement for coordinating care across the continuum and effectively accessing specialty care. Focus groups were convened with 30 participants to capture qualitative data relative to unmet needs, utilizing the Rapid Ideation Technique. A survey instrument was designed and administered to the twenty-one community clinicians on the task force to augment the qualitative data with quantitative data. The first part of the survey captured characteristics of the participating clinicians, their practices, their diabetes services and management approaches. The second part of the survey captured individual ratings of the importance and merit of needs and/or potential solutions generated.

Results

The focus groups generated a wealth of information regarding challenges, issues, areas of opportunities, and potential solutions that could be organized within eight main themes: care coordination and integration; patient engagement, education and behavioral change; physician and practice support; EMR and data issues; telehealth solutions; health informatics and data analytics; and access to care. The surveys culminated in the formation of a Call-For-Action Agenda for immediate work.

Conclusions

The ultimate goal of the taskforce was to catalyze innovation and generate solutions for high quality and affordable care. This article reports the findings and provides a roadmap for the future.

Keywords

diabetes mellitus, prediabetic state; endocrine system diseases; patient care, patient education; telemedicine surveys and questionnaires; disease management; quality improvement

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Introduction

Diabetes is the seventh leading cause of death in the United States; type 2 diabetes accounts for over 90% of all diagnosed cases of diabetes. According to the Centers for Disease Control and Prevention,[1] 30.3 million people in the U.S. have diabetes and an estimated 7.2 million are believed to be living with undiagnosed diabetes. At the same time, 84.1 million people are at increased risk for developing type 2 diabetes. Thus, more than 114 million Americans are at risk for developing the devastating complications of diabetes. The American Diabetes Association[2] estimated the total cost of diabetes in the United States in 2012 at $245 billion, and the average medical expenditures for people with diagnosed diabetes at about $13,700 per year. After adjusting for age group and sex, average medical expenditures among people with diagnosed diabetes were about 2.3 times higher than expenditures for people without diabetes.

In Florida, 2.4 million people have diabetes and 5.8 million have pre-diabetes. Not only has the prevalence of diabetes doubled over the past 20 years from 5.2 in 1992 to 11.2 in 2014, but the Centers for Disease Control and Prevention[1] expects 1 out of every 3 adults in Florida will have diabetes by the year 2050. In addition, in every year since 1996, Florida well exceeds the national levels in terms of prevalence of diabetes,

and the gap is getting wider. The population of Florida represents only 6% of the total population in the United States,[2] but the total cost of diabetes in Florida represents 10% of the total cost of diabetes in the United States.

The United States, and in particular the State of Florida, need to rethink and enhance the delivery of services to provide better support for individuals with diabetes, particularly in light of the rapidly rising rates of diabetes and an aging population. The tri-county area in Florida—Broward, Miami-Dade and Palm Beach counties—comprises the three largest populations of 65+ year-olds in Florida and, as shown in **Figure 1**, are in the top third of Florida counties in terms of highest prevalence of diabetes with 26.1%, 25.7% and 23.3%, respectively, in Broward, Miami-Dade and Palm Beach counties.[3]

The National Institute of Diabetes and Digestive and Kidney Diseases[4] points out that health care costs, outcomes and physician burnout are a few factors influencing a need to transform the delivery of diabetes care. As the health care delivery system and the field of medicine have changed, considerations also arise when it comes to the toll on physicians. A number of factors, such as more onerous certification requirements, increased administrative burdens, new and evolving regulatory requirements and increased scrutiny around quality
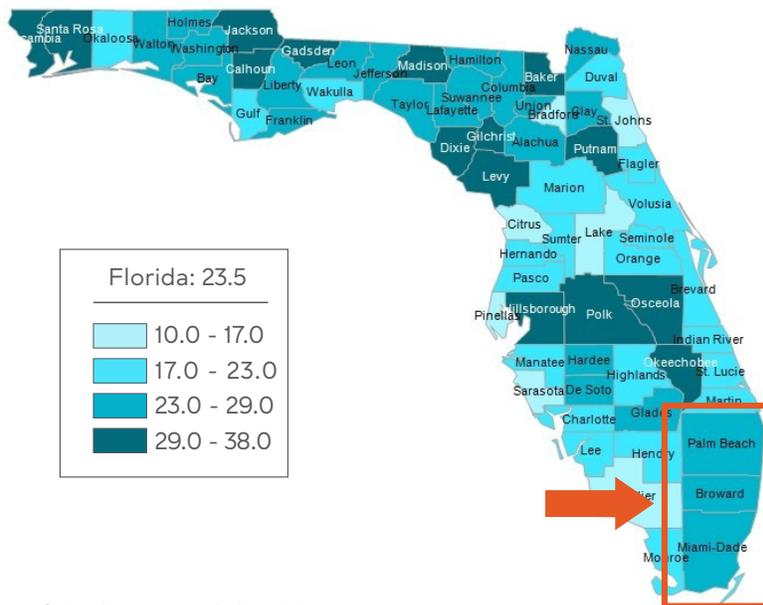

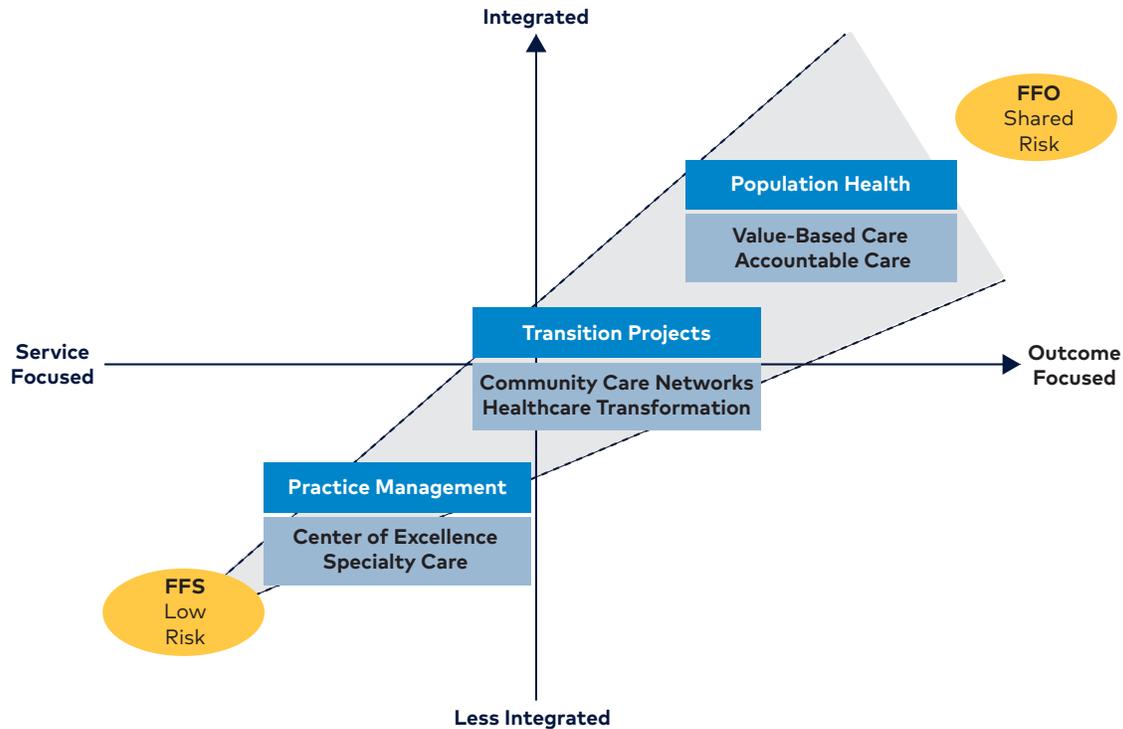**Figure 1.** Prevalence of Diabetes: Adults 65+

Figure 2. Transition from Volume to Value-Based Care

metrics, are contributing to physician burnout.[5] This is particularly true in Florida where the health care system is highly fragmented.

Thus, it is imperative to redesign diabetes care services in the primary care setting in order to improve the health of the population and reduce the serious impact of diabetes, while concurrently decreasing burnout and improving provider satisfaction. This would include moving to coordinated team-based care along the full spectrum of care and incorporating diabetes self-management education and support (DSMES) in new and emerging models of care, including virtual visits, Accountable Care Organizations, Patient-Centered Medical Homes, population health programs, and value-based payment models.[6-9]

As shown in **Figure 2**, the healthcare landscape is moving from a volume-based, fee-for-service (FFS) model of care where providers are paid per person per visit to a value-based system that provides differential payments based on measures of clinical quality and cost.[9] Reimbursement can be tied to specific performance criteria, or can be negotiated through shared risk contracts. Also shown in Figure 2,

value-based models of care, such as population health management, are heavily outcome focused and tend to be more integrated along the care continuum. Volume-based, fee-for-service systems of care tend to be focused on service, independently of outcome, and tend to be more fragmented.[9]

In an integrated value-based system, team-based care and coordination are more likely to be achieved and are an essential component of high-quality diabetes care. Within such a system, the ultimate goal is that each patient has a physician who leads a team that provides comprehensive and coordinated care. As a result, quality, safety and best outcomes are ensured, and reimbursement reflects the value of the care provided over time.[9]

Recognizing the need for novel and effective models of care to address the diabetes epidemic in the State of Florida, the Nova Southeastern University Dr. Kiran C. Patel College of Allopathic Medicine (NSU MD) embarked on a study to gather information from key physician stakeholders as to how to address unmet needs of patients at risk for, or whom have diabetes, in a tri-county region of Florida where

the prevalence of diabetes is extraordinarily high. This paper describes the methods used to identify specific challenges, opportunities and potential solutions, reports the results, articulates the need for change and discusses a roadmap for future work, as well as specific recommendations.

Methods

As the newest School of Medicine in the United States, NSU MD has been working collaboratively with community physicians to jointly develop a value- and evidence-based care delivery system to prioritize and address healthcare needs in South Florida, and specifically the tri-county area, comprised of Broward, Miami-Dade, and Palm Beach counties. NSU MD formed a clinician-led task force of top community physicians and community experts focused on diabetes to uncover unmet needs in the care continuum, identify areas of improvement for coordinating care across the continuum and effectively accessing specialty care. In a Health Summit held in June 2018, the task force examined implementing new ways of empowering, supporting and involving patients, while placing them at the center of care along the continuum. They also explored opportunities for digital health to support clinicians, patients and caregivers. The ultimate goal of the taskforce was to catalyze innovation and generate solutions for high quality and affordable diabetes care. As described below, after careful selection of the task force participants, a two-pronged methodology was implemented: 1) three focus groups were conducted to generate qualitative data; and 2) a 67-item survey instrument was administered to all clinicians in the task force to collect quantitative data to complement the qualitative data.

Task force participants selection

The NSU MD Diabetes Task Force was primarily comprised of practicing clinicians, augmented by NSU faculty members with expertise in population health, medical informatics, diabetes modeling and health outcomes, as well as representatives from the American Diabetes Association, Florida Department of Health in Broward County, Florida Medical Association and Broward Regional Health Planning Council.

To select the participating clinicians, 50 active, licensed physicians practicing in ambulatory care clinics in the tri-county area, who are recognized for excellence in diabetes treatment and management, were identified. Specifically, the identified clinicians have been recognized for excellence in: 1) delivering high quality care for patients with diabetes as per the National Committee for Quality Assurance (NCQA) Diabetes Recognition Program; and 2) providing diabetes education to patients with diabetes as per the American Diabetes Association (ADA) Education Recognition Program.

The NCQA Diabetes Recognition Program (DRP) is designed to recognize clinicians who use evidence-based measures and provide excellent care to their patients with diabetes.[10] To receive the recognition, eligible clinicians abstract data from the charts of their diabetes patients and submit the information to NCQA for review to demonstrate superior achievement on measures such as HbA1c control, blood pressure control, eye examinations, nephropathy assessment, smoking and tobacco use and cessation advice and/or treatment. The ADA Education Recognition Program[11] is designed to promote quality education for people with diabetes and recognize clinicians who endorse and meet the National Standards for Diabetes Self-Management Education and Support.[12]

The top 50 clinicians, according to these metrics, were contacted by phone and enthusiastically agreed to participate. Due to scheduling issues and other commitments, twenty-one clinicians (42%) were able to attend a day-long health summit held June 9, 2018. In addition, four experts from the American Diabetes Association, Florida Department of Health in Broward County, Florida Medical Association and Broward Regional Health Planning Council joined the task force, as well as three expert faculty from the Health Professions Division of Nova Southeastern University. Finally, two support staff assisted with the activities of the health summit.

Focus groups

After setting the goals for the task force and briefly discussing the context of diabetes care in South Florida, three facilitators conducted three consecutive focus groups with the entire task force along the following three themes: 1) unmet needs in the care continuum; 2) areas

of improvement for coordination and access to specialty care; and 3) opportunities for digital health for clinicians and patients.

For all three focus groups, the base questions to be addressed were:

1. What is the current situation in the tri-county area?
2. What are the challenges experienced by:
   a. Primary care physicians?
   b. Patients?
3. What are the opportunities?
4. What are potential solutions?

For each focus group, two faculty from NSUMD took notes on flipcharts visible to all participants and one staff member transcribed the focus group dialogue. Consistent with the Rapid Ideation Technique, each facilitator fostered creativity and enthusiasm, used challenge questions and reactions to stated ideas to focus the sessions, discouraged judgment and analysis during the sessions, encouraged unusual and bold ideas and made sure all ideas and contributions were captured and displayed.[13]

Survey instrument

A short, 10-minute, 67-item survey was designed and administered with all clinician participants who were in attendance to augment the qualitative data generated by the three focus group sessions with quantitative data. The survey had two parts. The first part captured characteristics of the participating clinicians, their practices, their diabetes services and management approaches. The second part of the survey captured individual ratings of the importance and merit of needs and/or potential solutions generated.

Results

Physician characteristics

Nineteen of the physicians in the task force have an MD degree while two have a DO degree. As shown in **Table 1**, 62% of clinicians in the task force are male while 38% are female; 9% are 30 to 39 years old, 19% are 40 to 49 years old, 43% are 50 to 59 years old and 29% are 60 years old and older. Fourteen percent have been in practice 10 years or less, 33% have been in practice 11 to 20 years, 24% have been in practice 21 to 30 years and 29% have been in practice 30 years or more. In terms of specialty, the distribution is 38% internal medicine, 24% family medicine, 14% geriatrics, 14% endocrinology and 10% cardiology.

Practice characteristics

The physicians practice in a variety of settings with 35% practicing in a privately-owned practice, 25% in an academic practice, 15% in a group practice, 15% in a hospital-based clinic, 5% in a Federally Qualified Health Center and

Table 1. Clinician and Practice Characteristics (N=21)

Clinician Characteristics	Responses	N	Percentage
Gender	Male	13	38%
	Female	8	62%
Age	30 to 39	2	9%
	40 to 49	4	19%
	50 to 59	9	43%
	60 and older	6	29%
Specialty	Family Medicine	5	24%
	Internal Medicine	8	38%
	Geriatrics	3	14%
	Endocrinology	3	14%
	Cardiology	2	10%
Years in Practice	1 to 10	3	14%
	11 to 20	7	33%
	21 to 30	5	24%
	31 or more	6	29%

Practice and EMR Characteristics	Responses	N	Percentage
Practice Type	Private	8	35%
	Concierge	1	5%
	Group	3	15%
	Hospital-based	3	15%
	Academic	5	25%
	FQHC	1	5%
Shared decision making with patients	Yes	17	85%
	No	3	15%
Practice has a follow-up protocol/process	Yes	11	55%
	No	7	35%
	Don't know	2	10%
Practice has a care coordinator	Yes	9	45%
	No	10	50%
	Don't know	1	5%
Practice has a referral tracking process	Yes	8	40%
	No	10	50%
	Don't know	2	10%
EMR has Tracking and Registry capability	Yes	9	45%
	No	5	25%
	Don't know	6	30%
EMR has Decision Support capability	Yes	7	35%
	No	8	40%
	Don't know	5	25%
Reported Diabetes Management Approaches	Responses	N	Percentage
Guidelines used for DM management	ADA	8	42%
	AACE	1	5%
	USPSTF	2	11%
	Other	7	37%
	None	1	5%
Educational resources used for patients	Support groups	4	20%
	Pharma resources	7	35%
	Online modules	5	25%
	Information brochures	17	85%
	Waiting room videos	5	25%
	Community programs	4	20%
	Hospital programs	7	35%
Obstacles to implementing treatment plans	Cost of medication	18	90%
	Insurance coverage	13	65%
	Prior authorization	4	20%
	Cultural factors	4	20%
Approaches used to minimize non-compliance	Partnership model	14	70%
	Cost effective therapy	16	80%
	Alternative therapies	7	35%
	Practice incentives	2	10%

	Provide samples	9	45%
	Assistance programs	13	65%
Most patients cannot successfully comply with lifestyle changes needed	Agree	14	70%
	Disagree	6	30%
How soon after discharge do you see diabetes patients in your office for follow up?	1 week or less	14	70%
	2-4 weeks	6	30%
	More than 4 weeks	0	0%
Methods used to manage discharge	Medication reconciliation	16	80%
	Home Health follow up	15	75%
	Case management support	12	60%
	Caregiver education	11	55%

5% in a concierge practice. As shown in Table 1, while most clinicians (85%) feel that their practice encompasses shared decision making with patients and/or families, only 55% report having a follow-up protocol in place, only 45% report having a care coordinator and 40% report having a referral tracking process. The sample of 21 physicians uses 16 different Electronic Medical Record (EMR) systems. Only 45% of clinicians report having tracking and registry capabilities in their EMR and only 35% report having decision support capabilities.

Reported diabetes management approaches

As reported in Table 1, all but one physician follow national guidelines for treatment and management of diabetes with 42% of them using the American Diabetes Association guidelines. All physicians spend time educating patients on symptoms in an effort to prevent complications of diabetes. All physicians have health and wellness education resources; however, most of these resources come in the form of printed informational brochures. Some (25%) also use online modules, videos or patient support groups. The two biggest obstacles cited by physicians to implementing a treatment plan are the cost of medication (cited by 90% of physicians) and insurance coverage (cited by 65% of physicians). In order to minimize patient non-compliance, the majority of physicians (80%) use cost-effective therapies, 70% use a partnership model with patients when deciding treatment, 65% enroll patients in patient assistance programs and 45% provide samples. Furthermore, 70% of physicians believe that most patients cannot comply successfully with lifestyle changes needed. Sev-

enty percent of the physicians in the task force see their hospitalized patients within a week after discharge and 30% see them between 2 to 4 weeks after discharge. To manage discharge, physicians focus on medication reconciliation (80%), home health follow-up (75%), case management support (60%) and caregiver education (55%).

Focus groups results

The focus groups generated a wealth of information regarding challenges, issues, areas of opportunities and potential solutions that can be organized within eight main themes:

1. Care coordination and integration
2. Patient engagement, education and behavioral change
3. Physician and practice support
4. EMR and data issues
5. Telehealth solutions
6. Health informatics and data analytics
7. Access to care
8. General solutions

Table 2 provides specific items discussed by the focus groups.

The task force felt strongly that solutions needed to be developed for the majority, if not all of the points raised during the discussions. In particular, the task force generated eleven directions for potential solutions, shown in **Table 3**, to address unmet needs of patients at risk of, or with, diabetes in South Florida. At the conclusion of the focus group sessions, all clinicians but one (who departed early) were polled to capture their overall level of agreement that the solutions should be pursued. There was strong consensus among the clinicians that developing a novel way to

Table 2. Expert Focus Groups Qualitative Results

Challenges	Potential Solutions/Directions
Care Coordination and integration	
ER visits and length of stay	• Improve and support patient navigation across the continuum of care. • Improve discharge instructions and follow-up protocols.
Fragmented follow-up: patient does not know what to do	• Better coordination from primary care office, from nurse, and care coordinator. • System to obtain consultation reports and discharge summary • Enhance and share discharge planning. • Coordinate discharge information (specialty information, hospital notes). • Utilize university resources to help coordinate care/reduce fragmentation. • Develop protocols for disease management programs. • Improve inter-specialty communication.
Patient Engagement / Education / Behavioral change	
Reward/incentive system for patients	• How to reward engagement and behavioral change. • How to make "better health" a worthwhile incentive for patients. • Increase accessibility to patient education programs and information.
Access to more and better information	• Facilitate access to information on food and nutrition, registered dieticians and other specialists. • Facilitate access to group exercise program.
Facilitate patient engagement	• Explore technology solutions for patient engagement. • Home tele-health monitoring for motivation. • Social media for better engagement of patients. • Take greater advantage of smart phones. • Build opportunities for patient educational options/technologies. • Use technology to engage all members of the care team (not just physicians). • Investments in well-designed patient wearable technology. Design need to include physicians.
Physician/Practice Support	
Optimal care pathways	• Develop and implement new care pathways. • Develop well-care/preventative programs.
Tools for care management	• Develop and diffuse needed tools, e.g., mobility index, goals of care for geriatrics, enhanced screening tools for co-morbid conditions (ex. Dementia). • Develop and implement support system for every practice, emphasize education on nutrition, risk factors assessment and analysis, health equity, cultural competency, how to educate patients, understanding and addressing patient motivations or lack thereof, etc.
Additional resources	• Create shared training and resources for patient education and patient assistance programs across practices. • Share information on value of therapy options to all providers. • Create a robust and organized CME program for community physicians addressing critical needs. Make it interactive, deliver in small groups to foster relationship building. Embed open-discussions between primary care and specialists.

Challenges	Potential Solutions/Directions
EMR /Data Issues	
EMR systems	• Study and understand provider needs before improving EMR systems. • Coordinate/integrate EMR systems. • Simplify physician portal to access relevant patient information at point of care. Reduce time needed to access information about patient care. Tie to claim information. • Build-in easy access to discharge summary/notes. • Ensure reliability of information in EMR. • Disconnect between EMR developers/physician needs.
Interoperability	• Provide direct/immediate easy access to key patient information. • Develop translational technology to allow communication from one system to another.
Patient input	• Engage and incentivize patients in providing health information electronically to providers. Patients should carry health information card, or other technology, which allows access at point of care for providers to key information.
Telehealth Solutions	
Coordination with specialists	• Develop e-consult software to fully support e-Consults with specialists. • Provide e-Consults with underserved areas in Latin America challenged with different medical formulation. Provide chart/review consult.
Capture of information	• Develop system to take a medical history by telehealth prior to office visit.
Health informatics and Data Analytics	
Shared data and analytics	• Enhance and support data communication to access contact information of health providers (clearinghouse) in the community. • Develop a shared location for access to patient information, create the "Nova Cloud". • Group data/analyze data by provider—"clearinghouse" for physician communication. Must be high-speed in providing information. • Create a repository of available and future Apps. • Develop capabilities for tracking and analyzing outcomes.
Access to Care	
Access issues	• Improve transportation services for patients, especially for low-income populations. • Need to operationalize, model, and measure access so that it can be effectively managed and improved. • Access is part of the value equation, not just quality and cost. • Access is not just access to care services, it includes access to information, tools, resources, support, transportation, etc.
Waiting times	• Address high wait times to obtain appointment with specialists (e.g., endocrinologist and ophthalmologist) • Every other visit could be performed through telemedicine.
General	
Insufficient time with patients	• Increase physician satisfaction and avoid burnout
Increase patient compliance	• Address high cost of medications
Cost of medications	• Develop joint strategies to positively influence food and pharma industries

support patients (and providers) in navigating the full continuum of the healthcare system, a "Health GPS™" would be very useful. They strongly emphasize the need for exploring ways to improve patient compliance, self-management and behavioral change. A tool such as the Health GPS™ would provide patients with essential self-management tools for optimally navigating the healthcare system, coordinating with providers, and accessing health information and community health resources. The task force also noted that creating an inventory of existing effective devices and tools that patients can use for better self-management would be useful. Physicians stressed the importance of involving the physician in redesigning care pathways and improving the care system and thus suggested the creation of a physician-led Quality Improvement Collaborative with NSUMD. The integration of clinical care with community resources was perceived to be critical. The physicians pointed out their frustration with their EMR systems (16 different EMRs among the task force itself) and suggested developing translational technology to allow communication from one system to another.

They also recommended developing and main-taining a joint data registry for diabetes pa-tients which would allow tracking outcomes and applying analytics to assist with clinical

Table 3. Expert Physicians Perceptions of Needs/Solutions (N=20)

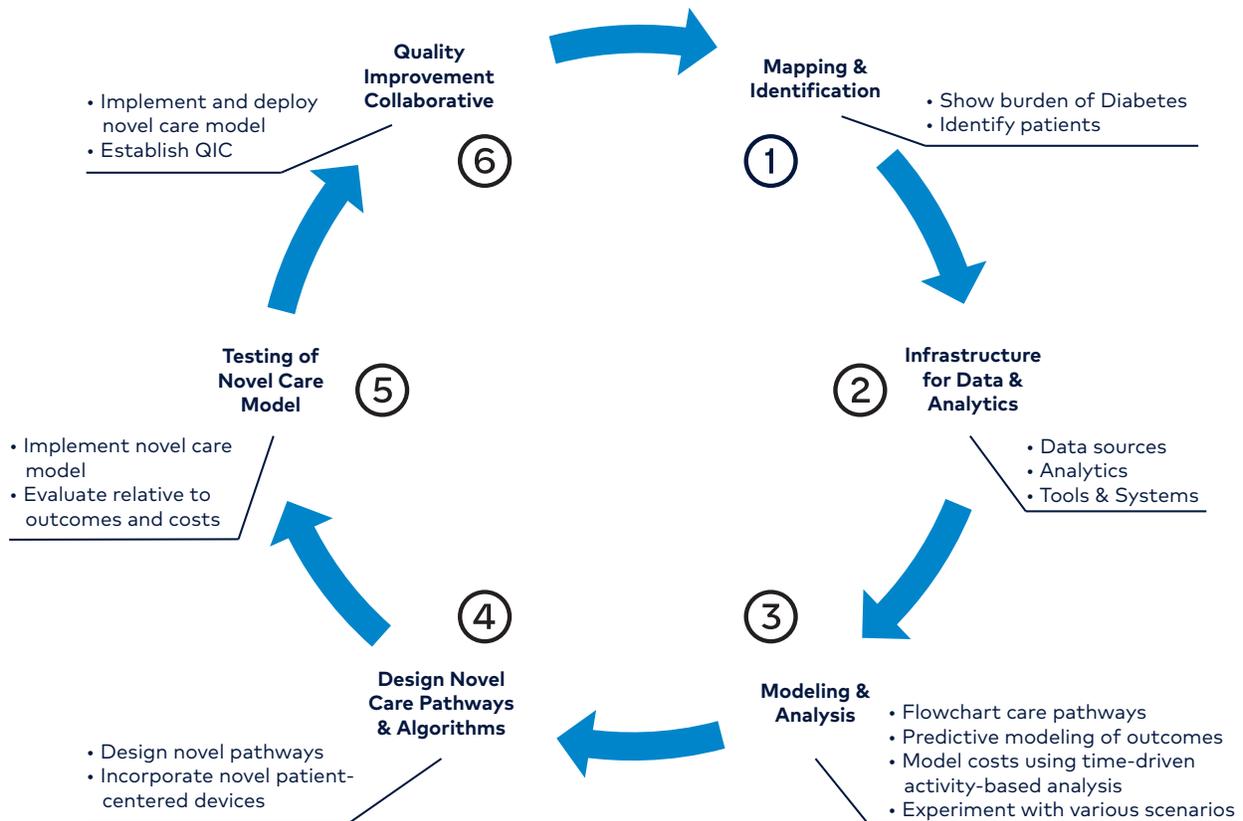| N (%)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Developing a Health GPS™ and Resource Registry will be very useful.	0 (0%)	0 (0%)	2 (10%)	16 (80%)	2 (10%)
Exploring ways to improve patient compliance, self-management, and behavioral change is critical.	0 (0%)	0 (0%)	0 (0%)	9 (45%)	11 (55%)
Creating an inventory of devices and tools that patients can use for better self-management would be useful.	0 (0%)	0 (0%)	1 (5%)	15 (75%)	4 (20%)
I would like to participate in a physician-led Quality Improvement Collaborative.	0 (0%)	0 (0%)	2 (10%)	15 (75%)	3 (15%)
We need to develop new care pathways for diabetic patients in South Florida.	0 (0%)	0 (0%)	1 (5%)	15 (75%)	4 (20%)
Integrating clinical care with community resources is needed.	0 (0%)	0 (0%)	0 (0%)	14 (70%)	6 (30%)
Developing a joint data registry for diabetes patients will be useful.	0 (0%)	1 (5%)	3 (15%)	15 (75%)	1 (5%)
I would like to participate in developing analytics and clinical decision support tools for diabetes management.	0 (0%)	1 (5%)	3 (15%)	13 (65%)	3 (15%)
I would like to participate in a work group to inventory qualified specialty care resources in our community.	0 (0%)	1 (5%)	3 (15%)	13 (65%)	3 (15%)
We need to develop guidelines for better organizing specialty referrals and managing waitlists.	0 (0%)	0 (0%)	3 (15%)	13 (65%)	4 (20%)
I would like to participate in a pilot program using eConsults with specialists for managing diabetes.	0 (0%)	0 (0%)	4 (20%)	12 (60%)	4 (20%)

Quality Improvement Collaborative
- Implement and deploy novel care model
- Establish QIC

⑥

Mapping & Identification
①
- Show burden of Diabetes
- Identify patients

Infrastructure for Data & Analytics
②
- Data sources
- Analytics
- Tools & Systems

Testing of Novel Care Model
⑤
- Implement novel care model
- Evaluate relative to outcomes and costs

Design Novel Care Pathways & Algorithms
④
- Design novel pathways
- Incorporate novel patient-centered devices

Modeling & Analysis
③
- Flowchart care pathways
- Predictive modeling of outcomes
- Model costs using time-driven activity-based analysis
- Experiment with various scenarios

Figure 3. The Care Redesign Cyclical Process

decision making for improved diabetes management. They also strongly suggested developing guidelines for better organizing specialty referrals and managing waitlists. Finally, they stressed the importance of using telehealth to fully support e-consults with specialists to better manage a patient's diabetes.

Discussion

Synthesis of the outcomes of this summit, including post-processing and integration of the qualitative and quantitative components of the study, culminated in the formation of a physician-led Call-For-Action Agenda for immediate work. The specific elements of this agenda are:

- Form and manage a Quality Improvement Collaborative: This physician-led collaboration in South Florida will focus on deploying effective solutions to create a value-based diabetes care system.
- Develop a smart Patient Navigation System—Health GPS™: Health providers and patients need user-friendly tools to navigate the continuum of health care services. These tools will allow for direct messag-

ing between patients and care members; a community services directory of social services; and patient portals to allow better access to their own health care information. The tools will facilitate access to specialty care and coordinate primary and specialty care. The tools will be packaged into a Health GPS™ system for diabetes to fully and effectively coordinate and guide navigation across the continuum of care.

- Enhance and adapt EMRs: This area of work focuses on projects to ensure health care providers' respective health information technology systems can work in concert with one another with a legal structure for sharing data.
- Facilitate data communication across the care continuum: Health care providers need to be able to access and share patient information to provide the best level of care. This effort focuses on developing feeds that can be easily accessed across a variety of software platforms.
- Develop data analytics and research: The summit underscored the importance of

research, development and implementation of data analytics and decision support systems based on data gathered from patients and health care providers to make decisions on the future of health care. This includes clinical decision making, patient decision making, self-management and behavioral change, as well as system-level decisions, such as where to locate new health care infrastructure, what services are most needed and which are the most effective delivery models.

- Care Redesign and Optimization Engines: This six-step cyclical process, shown in **Figure 3**, can be used to design, model, test, implement and evaluate care interventions in a systematic way.

Conclusion

In conclusion, we have reported an exploration of clinical pain points in the diagnosis, treatment and care of diabetes. The study is limited to physicians—with an intentional oversampling of those practicing in primary care. Expanding this study to a significant population of specialists—endocrinologists and ophthalmologists, for example—would expand the perspective represented and may also provide additional elements in the Call-to Action Agenda that was formulated in this discussion. Furthermore, there would be tremendous value in assembling a cohort of patients whose responses to our inquiries would complement the responses derived here from physicians, ensuring a more holistic vantage point from which to move forward. Everyone can expect to need health interventions at some point in their lives. Pre-diabetics and diabetics are more likely to be significant consumers of health care treatments and services. The physicians who treat them are on the front lines, where solutions to their pain points are scarce and when available, not well-integrated. We assert that the formation of a Quality Improvement Collaborative in South Florida, with emphasis on deploying effective solutions to create a value-based diabetes care system, is a dramatic step in the right direction.

Conflicts of Interest
The authors declare they have no conflicts of interest.

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