NDPP Webinar Series
DDT Referral Strategies
September 18, 2019
Webinar Transcript

Slide 1 – Title – No Text

Slide 2 – Welcome and Speaker Introductions

MICHELLE KNIGHT: Thank you for joining us today for the webinar "Strategies to Increase Health System Referrals to Type 2 Diabetes Prevention and Diabetes Management Programs."

Our presenter is Krista Proia who is a Health Scientist with the Centers for Disease Control and Prevention.

I am Michelle Knight with ICF Next, and I will be your moderator today. The recording and transcript, as well as the PowerPoint slide deck for this webinar, will be available on the CDC website.

Slide 3 – Learning Objectives

Our learning objectives for this webinar are shown here.

Moving forward, we will refer to chronic disease prevention programs and chronic disease management programs collectively as "chronic disease programs."

The content of this webinar is drawn from the CDC brief, "Increasing Health System Referrals to Diabetes Prevention and Diabetes Management Programs.

Now Krista will begin by describing the need for chronic disease programs.

Slide 4 – The Need for Chronic Disease Programs

KRISTA PROIA: Thank you Michelle.

As many of you know, chronic diseases are the leading cause of death and disability in the United States and the leading cause of health care cost.

Prevention and management of chronic diseases are critical to improving health and reducing costs.

One way to improve prevention and management is to increase health system referrals into evidence-based chronic disease programs, such as the National Diabetes Prevention Program's lifestyle change program and Diabetes Self-Management Education and Support.

Slide 5 – Types of Chronic Disease Programs

The types of chronic disease programs we are going to talk about today are chronic disease prevention programs and chronic disease management programs:

Chronic disease prevention programs are designed to provide lifestyle change support and education to reduce chronic disease risk. Examples of chronic disease prevention programs include the National Diabetes Prevention Program's lifestyle change program, also known as National DPP, other lifestyle change programs, and smoking cessation programs.

Chronic disease management programs promote self-efficacy, self-monitoring, and adherence to better manage diseases and prevent complications in people who already have a chronic disease.

Examples of chronic disease management programs include diabetes self-management education and support or DSMES for those diagnosed with diabetes and cardiac rehabilitation programs for people who recently had a heart attack.

Slide 6 - Importance of Health System Referrals in Chronic Disease Programs

Referrals from a health care provider can be important in helping make sure individuals participate in effective chronic disease programs.

However, many people eligible for these programs are not aware of and do not participate in them. This is particularly true for people with prediabetes who are eligible to participate in a National DPP lifestyle change program. Often people only hear about their risk from a health care provider, and thus, health care providers are an important champion to raise awareness of the availability of effective chronic disease programs.

Health care providers are often viewed as credible sources of health advice, and thus are likely to influence behavior change and continued participation in chronic disease programs.

Health care provider referral can also predict enrollment for some types of programs. And thus, program planners will have a better idea of how many participants to expect based on health care provider referrals.

Slide 7 – What is a Health System Referral?

For the purposes of this webinar we define a health system referral as a process by which an individual in a clinical setting is recommended to receive a specific service or attend a specific program delivered by another entity. A health system referral can serve as a community-clinical linkage, connecting the clinical sector to the community sector. An example of this is a physician referring one of her patients to a community based National DPP lifestyle change program.

Referrals can also connect one clinical setting, such as a physician's office, to another clinical setting like a hospital.

Referrals to chronic disease programs may be made by a variety of health care providers including physicians, nurse practitioners, physician assistants, registered nurses, midwives, diabetes educators, pharmacists, dietitians, nutritionists, dentists, or community health workers. However, in some instances for reimbursement purposes, only certain health care providers can refer an individual to certain programs or services. For example, only physicians and qualified non-physician health care providers can make referrals to DSMES.

Slide 8 – Referral Barriers to Chronic Disease Programs

Let's talk more about barriers to referral. We will use referral of patients with prediabetes to National DPP lifestyle change programs as our example.

Barriers to referral may occur because

Health care providers lack specific information about the lifestyle change program, such as where and when the program occurs.

Health care providers are not aware of why the program is important or the impact the program has on preventing type 2 diabetes.

Or, health care providers may not understand the referral process within their network, program eligibility requirements, or cost and coverage/payment options.

Barriers occur among potential participants too. Many eligible persons aren't aware of the program and their need for it, and don't participate. Because of this, people may not ask their health care provider for more information about the National DPP or a referral to one.

Slide 9 – How CDC Identified Strategies to Increase Referrals

In 2019, scientists in the Division of Diabetes Translation at CDC conducted a systematic review to identify strategies that may help address the barriers mentioned on the previous slide and improve referral rates to chronic disease prevention and management programs. The strategies we present today are those we identified from that systematic review. Because type 2 diabetes prevention and diabetes management programs can learn from referral strategies used for other types of chronic disease programs, this review included studies of referrals to other programs such as smoking cessation counseling, cardiac rehabilitation, and nutrition and weight loss services.

The work also included studies of referrals to preventive services recommended by the U.S. Clinical Preventive Services Task Force, such as mammograms and HIV testing.

Slide 10 – Health System Referral Strategy Types

From that systematic review, we identified four types of health system referral strategies:

Provider education strategies have a primary focus on health care staff education and training. Examples include distribution of referral guidelines or providing feedback on current provider referral practices.

System change strategies involve large-scale activities such as the movement of health staff, expanding roles for existing staff, and inclusion of non-traditional staff into the care team to increase referrals. System changes may even involve relocation of clinics or changes to financial arrangements to support referral.

Process change strategies involve smaller changes that impact the individual referral process—such as the use of electronic referral systems or automatic referrals for patients who meet certain criteria.

And multiple strategy types can also be used. Multiple strategies involved combinations of at least two of the strategy types I've already mentioned.

Slide 11 – How Each Referral Strategy is Presented

During this webinar I will provide information for each strategy type. This information will include:

An overview of the studies included, with details about the referral setting, and the common types of referring providers.

Identification and definitions for individual strategies that fall within each strategy type and an implementation example for each individual strategy.

Highlights of individual strategies that have been shown to increase referrals, based on available information in the systematic review and methods developed by the Guide to Community Preventive Services.

And finally, a description of implementation considerations.

Slide 12 – Provider Education Strategies: Key Study Characteristics

The first referral strategy type I will talk about are provider education strategies. As I mentioned previously, provider education strategies include a primary focus on health care staff education or training.

We found that most studies that evaluated provider education strategies involved referrals to the chronic disease programs that are shown on this slide. Some studies involved referrals to preventive services—including mammogram, genetic testing and other cancer screening.

We also found that most referrals in these studies were made in a primary care setting, and physicians were most often the referring providers.

Slide 13 – Provider Education Strategies Shown to Increase Referrals

So, let's dive in… this slide shows a list of all individual provider education strategies we identified in the systematic review. Strategies that had enough evidence to conclude that they increase referrals are indicated with a green dot. In determining whether a strategy received a green dot, we looked at four criteria, the number of studies evaluating the strategy, the more the better; the consistency of the effect across these studies or where most of these studies showing that referrals rates improved; the strength of the study designs used to evaluate the strategy, for example randomized controlled trials hold more weight than a study design that did not include a comparison group; and the quality of the study or where there concerns with how the study was conducted that caused us to question the accuracy of the findings.

We found that Formal Training and Professional Development, the provision of Educational Materials, and providing Audit & Feedback were strategies that had enough evidence to conclude they increased referrals.

Strategies without a green dot did not meet the criteria to show evidence for increasing referrals, not because they decreased referrals but because we did not have enough studies that evaluated these specific strategies, or they were evaluated using weaker study designs, or the overall quality of the studies were limited to make a conclusion.

Slide 14 - Formal Training or Professional Development

From the studies that assessed formal training or professional development we learned that these strategies included trainings and workshops that provided information for providers about when and

how to make referrals, build their overall knowledge base and skillset, or learn how to incorporate a formal referral protocol into their clinical practice.

These trainings and workshops varied in frequency and delivery and included webinars, workshops or lecture sessions, discussion-based sessions, phone education, group meetings, demonstrations or role play, simulation, symposiums, and by-mail courses.

Now I will present an example of formal training and professional development involving a smoking cessation program. The study aimed to educate providers about tobacco quitlines, referral methods and tobacco interventions. Researchers developed an online continuing medical education program that included quitline education and intervention and referral skills training tailored to specific providers such as physicians, nurses, dentists, pharmacists and others. Specific patient settings such as outpatient and inpatient settings were also addressed. The program included a module about strategies to enhance patient motivation.

Slide 15 – Educational Materials

Now let's turn our attention to educational materials. Referring health care providers received marketing materials describing the chronic disease program or service available to refer individuals to, guidance documents or formal steps that provided detailed information on how and when to refer individuals to chronic disease prevention or management programs, and resources, tools, and templates to help facilitate referrals.

Educational materials may include materials from a training or education session, pocket cards, examples of screening materials, information about billing codes, information about where to refer individuals, educational websites, newsletters, direct mailings, promotional materials, and fact sheets.

Using educational materials to increase referrals can work well. For example, a diabetes management study aimed to inform general practitioners about the existence of community-based dietitian-led diabetes clinics and the type of patient who would benefit most from care at these clinics. Researchers developed posters with information about the clinics and mailed them to individual general practitioners. The posters outlined: how to provide a referral to the clinic dietitian; the types of patients with diabetes who would benefit most from the clinic; and the locations and schedules of the clinics.

Slide 16 – Audit and Feedback

The next strategy we evaluated was audit and feedback. An audit and feedback strategy involves a third party review of current provider referral behaviors and delivering feedback to the referring provider on their referral progress – and whether they are referring appropriately. An audit may include referral rates of other referring providers so that providers can compare their referral progress with that of their colleagues.

I want to share with you an example of the use of the audit and feedback strategy for increasing referrals. This example comes from a smoking cessation program. The study involved a group-randomized clinical trial to assess the impact of comparative feedback versus general reminders on health system referrals to a tobacco cessation quitline.

Every quarter for six quarters, clinicians received a mailed comparative feedback report or a general postcard reminder about quitline services. The feedback report was a single page, with one graph showing quarter benchmarks for referrals for the individual clinician, his or her practice group, and the performance of the study group. The second graph showed the actual number of referrals made by the individual clinician per quarter. A sample feedback report used in the study is shown on this slide.

Slide 17 – Academic Detailing

The next provider education strategy we will discuss is academic detailing. This means that referring health care providers receive university or non-commercial based educational outreach. Academic detailing involves brief face-to-face education with referring providers by trained health care professionals – typically pharmacists, physicians, or nurses – that is repeated at periodic intervals.

Detailers sometimes share tailored materials and approaches to address a health care provider's barriers to referral. Academic detailing has shown to be a helpful strategy. In one example, an academic detailing intervention aimed to increase referral to breast cancer screening by physicians working in medically underserved urban areas. Intervention physicians received four academic detailing visits from two masters-level health educators. Visits averaged about 9 minutes in length, and physicians received self-learning packets that included professionally designed print materials, scientific articles, and a sample verbal transcript. The visits and materials highlighted the American Cancer Society breast cancer screening recommendations. With physician consent, the materials were shared with other staff. The intervention supplemented office visits with dinner seminars and dissemination of a newsletter to decrease attrition.

Slide 18 – Individual Consultation

The next provider education strategy was individual consultation. Referring health care providers received one-on-one consultation to go over strategies, tools, guidelines, or suggestions that could help them increase referrals to programs or preventive services. This may include meetings or consultations with other providers, one-on-one supervision, individual skills demonstrations or simulations, and individual workshops.

In an implementation example, researchers examined how an education program affected the quality of care for patients with chronic obstructive pulmonary disease or COPD. The education program included individual consultation for general practitioners and their staff and examined the impact on referral to pulmonary rehabilitation.

Specifically, an individual meeting with a consultant focused on international guidelines for COPD care. In addition to the individual consultation, a regional meeting with about thirty general practitioners and their staff focused on a discussion of international guidelines with experts, and a symposium was offered for all participating general practitioners and their staff with plenary sessions and workshops addressing practical issues.

Slide 19 – Implementation Considerations: Provider Education Strategies

Several considerations could inform your implementation of provider education strategies to increase referrals to diabetes management and type 2 diabetes prevention programs.

We learned that studies using formal training or professional development, educational materials, or audit and feedback provide enough evidence to show that they increase referrals. Individual consultation strategies and academic detailing strategies can be used – but because less is known about whether they increase referrals, program evaluation is especially important. Most provider education strategies were implemented in the primary care setting. Other settings may work as well, but less is known about them.

It is important to understand referral practices in your specific implementation setting and tailor your strategy to the referring providers. Most provider education strategies involved physicians as the referring providers. Other health care team members or staff may be able to serve as referring providers, but less is known about these situations.

Many studies included multiple provider education strategies. For example, formal training and professional development strategies were often accompanied by individual consultation or educational materials. Implementing multiple strategies may be an effective approach.

Because most studies did not report on patient characteristics, the effectiveness of provider education strategies to increase referrals for specific populations is not known. Thus, programs should be evaluated for evidence of increasing referrals in specific populations.

Slide 20 – System Change Strategies: Key Study Characteristics

The next strategy type we will discuss are system change strategies. System change strategies include large-scale changes that involve the movement of health staff, expansion of roles for existing staff, integration of nontraditional staff into the health care team, relocation of clinics, or changes to financial arrangements for referrals, such as incentives.

When we looked at system change strategies, we found that most studies involved referrals to the chronic disease programs shown on this slide. Some studies involved referrals to preventive services including cancer screening and HIV testing.

We also found that most referrals were made in the primary care clinic setting. Other settings included specialty clinics and hospitals. Referrals were most often made by multiple health care team members—including physicians, health advocates, nurses, and clinical social workers.

Slide 21 – System Change Strategies: Key Study Characteristics

This slide shows the two system change strategies we identified in the systematic review—team-based care and the addition of clinics.

The strategy that was shown to increase referrals—Team-Based Care—is indicated with a green dot. As mentioned previously, in determining whether a strategy received a green dot we looked at four criteria shown on this slide. The addition of clinics did not meet the criteria to show evidence for increasing referrals because only 2 studies assessed this strategy.

Slide 22 – Team-based Care

With team-based care, a new team member is added to the health care team to focus on facilitating referrals within their health system, or a current team member's role is shifted to focus on facilitating referrals to chronic disease prevention or management programs. Team-based care can also include adding trained staff to implement new patient-focused initiatives. Team members in the studies we reviewed included physicians, nurses, patient health advocates, and medical support staff.

In an example of team-based care to facilitate referrals, a study assigned practice nurses as case managers of patients with depression and diabetes or depression and heart disease. The case managers identified depression and reviewed pathology results, lifestyle risk factors, and patient goals and priorities. Practice nurses received training in a 2-day workshop to prepare them for their enhanced roles in nurse-led collaborative care. Training included use of tools to screen for depression, behavioral techniques, and protocols for care management based on patient depression scores. The intervention was designed to fit into normal clinic operations.

Slide 23 – Addition of Clinics

The addition of clinics involves implementing a collaborative care approach, by adding a specialty clinic in a primary-care setting to facilitate referrals to chronic disease prevention or management programs.

I'd like to share an example of how this works. To help improve care for patients with cognitive impairments, a family medicine practice in Canada implemented an interdisciplinary memory clinic. One aim was to allow for access to comprehensive assessment and care. Another aim was to improve referring physicians' knowledge of dementia management, as well as their confidence in managing cognitive difficulties. Clinic staff included a family physician lead, two registered nurses, a social worker, a pharmacist, and a receptionist. A geriatrician was available to support the lead physician in more complex cases.

The clinic operated 1 to 2 days per month, with four new assessments and two follow-up appointments scheduled on each clinic day. Referring family physicians were encouraged to inform patients about the memory clinic assessment. They were also provided with handouts for patients outlining what to expect. Referring physicians were informed when patients declined to schedule an assessment, and clinic staff were available to assist physicians with strategies to increase likelihood of referral acceptance.

Slide 24 – Implementation Considerations: System Change Strategies

Several considerations could inform your implementation of system change strategies.

We learned that studies using team-based care provide enough evidence to show that they increase referrals. Addition of clinics strategies can be used, but because less is known about whether they will increase referrals, program evaluation is especially important.

Most system change strategies were implemented in the primary care setting. Other settings may work as well, but less is known about them.

Most system change strategies focused on changing how health care team members work together to increase referrals. Thus, focusing these strategies on the entire team may be an effective approach.

System change strategies, which tend to focus on a collaborative approach, should account for the level of collaboration between staff members. Implementing these types of strategies in a way that is mutually agreeable for all provider types involved may be most effective.

And because most studies did not report on patient characteristics, the effectiveness of system change strategies to increase referrals for specific populations is not known. Thus, programs should be evaluated for evidence of increasing referrals in specific patient populations.

Slide 25 – Process Change Strategies: Key Study Characteristics

The next strategy type we evaluated were process change strategies. These types of strategies include small-scale changes to some aspect of the individual referral process—such as introducing electronic referral systems, bi-directional referrals, and automatic referrals with opt-out provisions.

When we looked at process change strategies, we found that most studies involved referrals to the chronic disease programs shown on this slide. Some studies involved referrals to preventive services including genetic testing, bone density screening, and mammograms.

We also found that most referrals were made in primary care clinic setting. Other settings included specialty clinics and hospitals.

Referrals were most often made by multiple health care team members, including physicians, health advocates, nurses, and clinical social workers.

Slide 26 – Process Change Strategies Shown to Increase Referrals

We looked at several process change strategies. The strategy that was shown to increase referrals—Decision Support—is indicated with a green dot based on the four criteria listed on this slide. Strategies without a green dot did not meet the criteria to show evidence for increasing referrals, because only a small number of studies assessed these strategies.

Slide 27 – Decision Support

Prompts, alerts, reminders, or screening and treatment algorithms are decision support strategies that assist health care providers in making referrals.

Here is an example of how decision support was implemented. The quality improvement team of an academic family medicine clinic created a tobacco registry, which included a decision support tool for referring patients to a tobacco quitline or nicotine dependence program. Smokers who expressed a readiness to quit could choose one, both, or neither options. Medical assistants used the decision support tool to assess patients' level of tobacco use and ask about quitting. The tool included prompts for: fax referral to the quitline, referral to the nicotine dependence program, offering medication, providing self-management support, offering a pneumococcal vaccine, and administering depression and aortic aneurysm screening. Providers used the information obtained by the medical assistants and

a list of prompts for recommended services to guide their advice to patients, and to develop an appropriate treatment plan.

Slide 28 – Automatic Referral

The next strategy is an automatic referral which involves putting a process in place that triggers a referral based on specific patient criteria—without the health care provider making the decision to refer. Electronic or paper-based formats can be used with automatic referrals.

I'll review an example with you. In one study, hospital electronic patient records were used to prompt referrals to a cardiovascular rehabilitation program for all eligible patients with cardiac diseases. The referral was automatically initiated in the inpatient unit as a discharge order, printed on a hospital network printer, and screened for eligibility. After being discharged from the hospital's cardiovascular rehabilitation center, each patient was automatically mailed an information package. This package included a personalized letter stating the name of the referring physician, a program brochure, a schedule of classes, and a request that the patient call to book an appointment. Patients who lived outside of the geographic area were sent a similar package and were provided the contact information of the site closest to their home.

Slide 29 – Electronic Referral (e-Referral)

With an electronic or e-Referral, referrals go from paper-based referrals to referrals that are electronically transmitted. Referrals are often emailed or sent through an electronic health record system. The messages may include supplemental attachments, such as medical history or test results.

In one example, a regional health system, an EHR vendor, a tobacco cessation quitline vendor, and a university research center worked together to create an e-referral system within the health system's EHR. The modifications included adjustments in clinic workflow and EHR prompts.

Slide 30 – Bi-Directional Referral

The next process change strategy is bi-directional referral. With bi-directional referral, the health care provider sends information to the program or service, and the program or service sends feedback on the patient's progress to the health care provider.

Here is an example of bi-directional referral. In Massachusetts, a referral program called QuitWorks was used to link health care organizations, providers, and patients to the state's tobacco cessation quitline and provided feedback reporting. The state launched a fully electronic version of QuitWorks in 2010, in partnership with a large health system. The program accepted referrals from any EHR with patient medical record identification. The program also had the capability to transmit feedback reports electronically to the referring provider organization.

Slide 31 – Referral Letters

The last process change strategy we evaluated were referral letters. With referral letters, patients receive a mailed letter from their health care provider referring them to a program or service.

For example, a two-year study aimed to increase breast cancer screening. Physicians who agreed to participate obtained a list of all female patients in their practices and identified appropriate candidates. Personalized letters on physicians' letterhead were signed and mailed to eligible participants, along with fact sheets and maps. The letters explained the purpose of screening and asked women to book screening appointments during a 2-week period. For women who did not book appointments, follow-up letters signed by their physician were mailed 2 weeks after the initial letter.

Slide 32 – Implementation Considerations: Process Change Strategies

Here are some considerations that could inform your implementation of process change strategies.

Currently, studies using decision support provide enough evidence to show that they increase referrals. Automatic referral, e-referral, bi-directional referrals, or referral letter strategies can still be used, but because less is known about whether they will increase referrals, program evaluation is especially important.

Many process change strategies use health IT, such as EHR systems. In these cases, you will need to connect with staff with working knowledge of the relevant technologies and how to implement changes. You may need to involve other stakeholders, such as EHR vendors.

Most strategies involving process change strategies were implemented in the primary care setting. Other settings may work as well, but less is known about them.

It’s important to understand referral practices in your specific implementation setting and tailor your strategy to the referring providers. Most strategies involved physicians and nurses as the referring providers. Other health care team members and staff—including non-clinical staff— may be able to serve as referring providers, but less is known about these situations.

Some studies included multiple process change strategies. For example, one study used both decision support and automatic referrals. Implementing multiple process change strategies may be an effective approach.

Because most studies did not report on patient characteristics, the effectiveness of process change strategies to increase referrals for specific patient populations is not known. Thus, programs should be evaluated for effectiveness in specific patient populations.

Slide 33 – Multiple Strategy Types: Key Study Characteristics

The final strategy type we will discuss today are those that used multiple strategies. Multiple strategy types are interventions using strategies from at least two of the referral strategy types already described in this webinar; provider education strategies, system change strategies, and process change strategies.

When we looked at multiple strategy types, we found that most studies involved referrals to the chronic disease programs shown on this slide. Some studies involved referrals to preventive services including cancer screening and genetic testing.

Most studies involved referrals made in a primary care clinic setting. Other settings included hospitals, specialty clinics, nursing homes, community-based organizations, county government, and medical schools.

Physicians and nurses were most often the referring providers. Other referring providers included nurse practitioners, nutritionists or dietitians, medical assistants, clinic managers, occupational therapists, physiotherapists, and physician trainees. In some cases, front office staff also made referrals.

Slide 34 – Combinations of Multiple Strategy Types

You can see the specific combinations of strategy types we evaluated on this slide.

Provider education strategies combined with process change strategies—were the only combination that showed sufficient evidence for increased referrals based on the four criteria we have mentioned previously and—thus is indicated with a green dot.

Strategy combinations without a green dot did not meet the criteria to show evidence for increasing referrals, not because they decreased referrals but because we did not have enough studies that evaluated these combinations, or they were evaluated using weaker study designs, or the overall quality of the studies were limited for us to make a conclusion.

Slide 35 – Provider Education & Process Change

Studies that assessed provider education and process change strategies in combination includes some of the provider education and process change strategies we described earlier.

It also includes one new process change strategy, Fax Referral Programs.

With a fax referral program, the referring health care provider files out a fax referral form with the patient, and then faxed the form to the program.

Fax referral was mostly used to refer patients to tobacco cessation quitlines.

Slide 36 – Study Example: Provider Education & Process Change

I will share an example of this combination. The Bronx Collective Action to Transform Community Health partnership, or CATCH, implemented a formal training strategy and an e-Referral strategy to increase referrals in federally qualified health centers to the YMCA-based Diabetes Prevention Program or YDPP, which is part of the National DPP. For the e-Referral strategy, a referral template was added to the EHR system to make patient referrals to the YDPP easier. Health care providers received formal training to use the EHR to increase and sustain clinic based YDPP referrals over time.

Slide 37 – Provider Education & System Change

The next combination includes some of the provider education and some of the system change strategies we described earlier. It also includes one new system change strategy, Regional Outreach Specialists.

With this strategy, outreach specialists are assigned to specific geographic regions to assist health systems in establishing referral programs. This strategy was mostly used with tobacco cessation programs.

Slide 38 – Study Example: Provider Education & System Change

In a 2016 study, a formal training strategy and a team-based care strategy were used to increase referrals to health coaches to assist patients with chronic disease management. Two health coaches joined the existing health care providers. The health coaches received 40 hours of training on chronic disease care, motivational interviewing, goal setting, documentation, identifying barriers, and professional boundaries. They received 20 hours of in-depth motivational interviewing instruction.

Primary care physician training included an introduction to health coaches, an explanation of criteria for referrals to a health coach, and a specific language to use. Refresher trainings at department meetings reminded primary care physicians how and when to make referrals, and staff shared stories of patients using the health coach program.

Slide 39 – System Change & Process Change

The next combination was system change strategies combined with process change strategies. This multiple strategy type includes some of the system change and some of the process change strategies we described earlier.

It also includes the addition of two new strategies. Pay for Performance is a system change strategy in which referring health care providers are offered financial incentives for meeting certain referral performance measures. Investment in IT is a process change strategy in which health systems invested in new electronic tools or health information technology to facilitate referrals.

Slide 40 – Study Example: System Change & Process Change

Here is an example of this multiple strategy type. To make improvements to the post-stroke patient discharge process, the Neurology Stroke Service established multi-disciplinary teams that included a case manager, a social worker, physical therapist, occupational therapist, a speech and language pathologist, charge nurses, and liaisons from each of the follow-up care teams. The teams planned for patient discharge, identified follow-up care placement options, identified and attempted to remove barriers to discharge, and organized follow-up care resources.

Case managers and social workers received phones with texting capabilities. Case managers, social workers, and therapists received tablet computers to support management of referrals to stroke rehabilitation and follow-up care, additions to patient charts, communication about discharge recommendations, and increased communication.

Slide 41 – Three-Strategy Combination

The final combination includes all three strategy types. Studies that evaluated this multiple strategy type category includes some of the provider education, process change, and system change strategies we discussed earlier.

It also includes one new system change strategy, Operating Costs.

With this strategy, health systems are provided with upfront costs or a portion of operating costs to cover the referral systems they establish.

Slide 42 – Study Example: Three-Strategy Combination

Here is one example of a study that evaluated multiple strategy types: To improve the quality of care for dementia by primary care physicians, physicians at two community-based clinics participated in an intervention that included results of audits of medical records of five patients with dementia per physician; decision support, with prompts to address the condition with appropriate data collection, diagnostics, and follow-up care; a physician fax referral form to local Alzheimer's Association chapters, and an Alzheimer's Association fax response form to support bi-directional referral; training to support physicians in incorporating recommended processes into patient visits; and training for office staff to support implementation activities.

Slide 43 – Implementation Considerations for Multiple Strategy Types

Several considerations could inform your implementation of multiple strategy types.

Currently, only studies using a combination of provider education and process change strategies provide enough evidence to show they increase referrals. The most common combination of specific provider education and process change strategies was formal training/professional development with decision support. Other combinations of strategy types can be used, but because less is known about whether they will increase referrals, program evaluation is especially important.

As with other strategies we've looked at, most interventions involving multiple strategy types were implemented in the primary care setting. Other settings may work as well, but less is known about them.

It's important to understand referral practices in your specific implementation setting and tailor your strategy to the referring providers. Most studies involved physicians and nurses as the referring providers. Other health care team members—including non-clinical staff—may be able to serve as referring providers, but less is known about these situations.

Implementation of multiple strategy types should be done with attention to provider needs, to avoid overwhelming demands on providers and existing workflows.

Because most studies did not report on patient characteristics, the effectiveness of multiple strategy types focused on referrals for specific patient populations is not known. Thus, programs should be evaluated for effectiveness in specific populations.

Slide 44 – Summary

To summarize, health system referrals are important because of their potential to connect more individuals with effective chronic disease prevention and management programs such as the National DPP and DSMES. Participation in these programs can lead to lifestyle improvements, better quality of life, and ultimately, reduced morbidity and mortality, and reduced health care costs.

As discussed during this webinar there are many strategies that can be used to help increase referrals to effective chronic disease programs.

It's important to note that this project looked at strategies with evidence for increasing referrals. However, this does not automatically mean increased enrollment or participation in these programs. Enrollment in chronic disease prevention and management programs can be affected by other factors, such as characteristics of the potential participant or characteristics of the potential programs in which participants can enroll. But referral from a trusted health care provider is an important first step in increasing enrollment in these effective prevention and management programs.

Needs assessments can help identify specific gaps in connecting people with chronic disease prevention and management programs. In some cases, additional strategies to address other barriers to enrollment may be implemented alongside strategies to increase health system referrals. Needs assessments might also reveal a need for improved patient education, risk detection, access to local programs, or retention of those participants who do enroll in chronic disease prevention or management programs. Ultimately, a comprehensive and tailored approach to improving access, referral, enrollment, and retention is important for improving access to and participation in effective chronic disease prevention and management programs such as the National DPP Lifestyle Change Program and DSMES.

Slide 45 – Learning Objectives

Based on what you learned during this webinar, you should be able to define chronic disease programs and describe the benefits of increasing health system referrals to National DPP and DSMES.

This webinar has helped you to define the different referral strategies and multiple strategy combinations, identify strategies that increase referrals to chronic disease programs such as the National DPP and DSMES, and describe the approach to implement referrals.

Slide 46 – Additional Resources

For more information on strategies to increase health system referrals, please refer to CDC's Referral Strategies Guidance document titled: "Increasing Health System Referrals to Type 2 Diabetes Prevention and Management Programs". Additional resources from the CDC Referral Strategies Guidance Document include references of included studies, methods used, details on the criteria for determining effective strategies, referring provider and patient characteristics, and referral settings.

Slide 47 – Thank You!

On behalf of CDC, I want to thank you for participating today in "Strategies to Increase Health System Referrals to Type 2 Diabetes Prevention and Diabetes Management Programs" webinar. For more information, we invite you to visit the CDC website at www.cdc.gov. Thank You.