INTERVENTION MODULE:

DIABETES CONTROL

Almost 27% of US residents 65 and older have diabetes, which disproportionately affects Hispanic and African American individuals. People with diabetes are at risk for developing serious complications such as heart disease, stroke, kidney failure, blindness, and neuropathies. Such complications can result in leg amputations or premature death if the diabetes is not managed or well controlled.

In most instances, complications from diabetes are preventable if the diabetes is well managed. Keeping blood glucose (blood sugar), blood pressure, low-density lipids (LDL cholesterol), and weight under control; eating healthy; being physical active; and getting necessary screenings, vaccinations and immunizations, are all important in preventing complications from diabetes.

Achieving good diabetes management and control takes a village.

There are things that

- **Clinicians must monitor and treat.** These include blood sugar levels (A1C test at least twice a year), Blood Pressure (at least twice a year), Low Density Cholesterol (LDL test annually), Eyes (annual dilated eye exam), and Neuropathy (annual foot exam).
- **Patients (clients) should do.** Health-seeking behaviors to actively manage their condition include making sure they get the recommended monitoring and tests listed above, checking their blood sugar levels at home (as prescribed by their physician), taking medications as prescribed, conducting daily foot checks, following a healthy diet, and getting the recommended amount of physical activity.
- **Senior-serving organizations can do.** Organizations like yours can provide health education and support programs or health promotion and wellness activities including diabetes self-management education, nutrition and diet classes, physical activity and exercise programs, and onsite screening and immunization services that help support seniors with diabetes manage and maintain their health.

This section contains several interventions (programs or services) that senior serving organizations may want to try. There are many interventions to choose from to measurably improve seniors' management of their diabetes. They range from highly structured Tier III evidence-based programs, to one-time immunization services that are important to preventing complications for people with diabetes.

Resources

- American Diabetes Association, Senior Signature Series, Diabetes 101 http://main.diabetes.org/dorg/PDFs/awareness-programs/seniors/diabetes-101-english.pdf

- Diabetes - Prevent Complications. 2015. Centers for Disease Control and Prevention http://www.cdc.gov/diabetes/managing/problems.html

AREA OF INTEREST: DIABETES SYMPTOM CONTROL
INTERVENTION: DIABETES SELF-MANAGEMENT PROGRAM (DSMP)

(Crosstab of Questions 42 & 41, 43, 44)

Formal diabetes education and diabetes self-management programs have been shown to help people with diabetes improve their symptom management and quality of life. People who have completed an evidence-based diabetes self-management program have been shown to have sustained improvement in their symptom management.

Description

The Diabetes Self-Management Program/ Tomando Control de su Salud (Spanish language program) is a Stanford developed 6-week diabetes self-management program designed to teach adults with Type-2 diabetes the skills needed to self-manage the condition. It is a Tier III evidence-based program which must be facilitated by two trained (non- clinical) peer leaders, one or both of whom are living with a chronic condition or acting as a caregiver to someone with the condition.

References

- Visit http://patienteducation.stanford.edu/programs/diabeteseng.html to learn more about DSMP a get a detailed description
- To learn more about DSMP work taking place in New York State, visit the Center for Excellence in Aging & Community Wellness) website: http://ceacw.org/programs/cdsmp
- To learn about DSMP work taking place in New York City, contact the NYC Department for the Aging (DFTA) Health Promotion office at (212) 602-4307.

Activities

The program takes place once a week for six weeks with a set group of 12-16 individuals. Each session is 2.5 hours long. Topics covered include: (1) techniques for dealing with symptoms of diabetes, fatigue, pain, hyper/hypoglycemia, stress, and emotional problems; (2) empowering seniors to take control and goal setting; (3) appropriate exercise for maintaining and improving strength and endurance, (4) healthy eating; (5) medication management; and (6) working more effectively with health care providers. At the end of the program, seniors graduate with a certificate stating that they have completed the program.

Resources

This is a resource intensive program. To implement this at your site you will need to secure the following:

- Peer Leaders - Two trained peer leaders who can commit 2.5 hours per week for a six week period. Your local health care provider or your AAA (DFTA) may be able to provide you with a peer leader or you can contact the technical assistance center for your region (in NYS – QTAC) and they may be able to provide you with a list of available trained peer leaders in your area. You will not be able to conduct the workshops without two peer leaders.
- License - Your AAA (for example, DFTA in NYC) may have the ability to provide you with a workshop to be delivered under its license. Or, you will need to either purchase a license from

Stanford (and undergo the certification that allows you to conduct the workshops at your site) or partner with another organization that already has a license.

- Training Materials – As part of the program, each participant receives a book entitled "Living a Healthy Life with Chronic Conditions." These books and other supplemental materials need to be purchased from Stanford. If you are using a license from the AAA or a partner organization, find out if their license includes the materials, or if your organization will have to purchase them separately.

- Space – You will need a secure, consistent space that can be used for the workshops. This space should be private and in a quiet area to ensure that participants are comfortable sharing personal information and challenges.

- An Engagement and Targeting Strategy – Using your health Indicators registry of seniors with diabetes you will need to consider ways to invite them to join or take advantage of the program. Many outreach efforts such as flyers or robo-calling are impersonal; here a personal touch may be best as participation will require a significant time commitment.

Measurement

<u>Process</u>
Did you reach the targeted seniors?
Were the volunteers regularly available for outreach efforts?
Did you offer the intervention activity (DSMP Course)?

<u>Progress</u>
Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?
How many of the targeted seniors completed the intervention?

<u>Impact</u>
Compare pre- and post- intervention results of the health indicator question on diabetes symptom control and on health status rating
Q 43. Do you feel that your [DIABETES] symptoms are under control?

Q 41. Would you say that your health is excellent, very good, good, fair, or poor?

For DSMP, there are specific suggested measures for a range of topics, including health behaviors, health status, self-efficacy, and health care utilization. For example, there are multiple rating scales to determine if a participants is regularly measuring blood glucose levels, experiencing hyper- or hypoglycemia, etc. Sites can review the range of impact and outcome measurement instruments at http://patienteducation.stanford.edu/research/primer.html.

AREA OF INTEREST: DIABETES AND HYPERTENSION
INTERVENTION: KEEP ON TRACK (PEER-LED BLOOD PRESSURE MONITORING)

Seventy-six percent (76%) of older adults with diabetes also have high blood pressure (hypertension) [1], but less than 50%[2] of those with both diabetes and high blood pressure report having their blood pressure under control. Do your clients with diabetes have well-controlled blood pressure?

Description

Keep on Track is a peer blood pressure measurement program developed for seniors with hypertension by the NYC Department for the Aging in conjunction with the NYC Department of Health and Mental Hygiene. Sessions are conducted every other week to monitor and record participant blood pressure. Education is provided using low-literacy materials and medication adherence is covered as well. When readings indicate a risk to the monitored senior, there is a protocol for the peer monitor to follow up with the senior's health care provider. DFTA's Health Promotion Unit administers the program and provides the training, two digital monitors, supporting educational materials and the initial supervision and oversight to ensure the quality of the program.

Activity

Trained Keep on Track volunteers use digital blood pressure monitors to measure seniors' blood pressure, provide education, and refer for follow-up when readings indicate risk to the senior.

Resources

This intervention requires a modest amount of resources. You will need:

- Peer volunteers – Two peer volunteers who are trained in the program (by DFTA) and able to make the time commitment needed.
- Equipment – provided by NYC DFTA.
- Space – Private space that can be used every other week.
- An Engagement and Targeting Strategy – although blood pressure checks can be a favorite activity in some places, the focus here should be on those who need it, such as seniors with or without diabetes who have uncontrolled hypertension. Use your Health Indicators registry to identify your target population and then consider how best to engage this group of seniors.
- For more information http://www.gnmhealthcare.com/pdf/06-2010/02/jgs58.6_jgs_2874.pdf

Measures

Process

Did you reach the targeted seniors?
Were the volunteers regularly available for outreach efforts?
Did you offer the intervention activity regularly?

[1] Centers for Disease Control. *Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Who Have Hypertension, by Age, United States, 1995–2009*. http://www.cdc.gov/diabetes/statistics/comp/table8_1a.htm

[2] Yoon S, Ostchega Y, Louis T. *Recent trends in the prevalence of high blood pressure and its treatment and control, 1999–2008. NCHS data brief, no 48.* Hyattsville, MD: National Center for Health Statistics. 2010.http://www.cdc.gov/nchs/data/databriefs/db48.pdf

Progress
Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?

Impact
Was there improvement in blood pressure control?

Compare pre- and post- intervention results of the health indicator question on blood pressure control and on health status rating

Q 48. Do you feel that your blood pressure is under control?

Q 41. Would you say that your health is excellent, very good, good, fair, or poor?

AREA OF INTEREST: DIABETES AND HYPERTENSION

INTERVENTION: CLINICIAN-LED BLOOD PRESSURE MONITORING PROGRAM

Seventy-six percent (76%) of older adults with diabetes also have high blood pressure (hypertension) [3], but less than 50%[4] of those with both diabetes and high blood pressure report having their blood pressure under control. Do your clients with diabetes have well-controlled blood pressure?

Description

Blood pressure measurement and monitoring by a clinician is offered at many senior serving organizations as an activity to help seniors self-manage their hypertension. This intervention wraps an ongoing monitoring and tracking strategy to the blood pressure measurement and follow up activity, connecting it all to resources and supports seniors need to adopt the behavior changes that can lead to improved blood pressure control.

Activity

The clinician(s), such as the site nurse or supervised nursing students, provide weekly blood pressure measurement over a period of 6-12 weeks. Each week, clinicians will provide seniors with a blood pressure measurement and will record the measurement for the senior's pocket-card and in the blood pressure log for participants in the program. Any abnormal readings will trigger a counseling and referral process where the clinician will attempt to connect the senior with appropriate education and support available at the senior center, or referral to their physician. Program staff will assist with connections to appropriate medical care when necessary.

At the conclusion of the monitoring program, sites will analyze the blood pressure log and records of participation in any follow-up activity (such as referral to a physical activity class) to determine the impact the program has had on the hypertension of each program participant individually, the overall control of hypertension in the group, and the health status of the seniors participating program.

Resources

Sites will need clinicians to administer, interpret, log, and track blood pressure measurements and make referrals for onsite programs and supports. Sites will also need space to conduct the blood pressure measurements and education sessions, and a tracking system for maintaining records of the measurements so that they can analyze the impact of the program at its conclusion.

Measures

Process

Did you reach the targeted seniors?

Was the program regularly offered?

[3] Centers for Disease Control. *Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Who Have Hypertension, by Age, United States, 1995–2009*. http://www.cdc.gov/diabetes/statistics/comp/table8_1a.htm

[4] Yoon S, Ostchega Y, Louis T. *Recent trends in the prevalence of high blood pressure and its treatment and control, 1999–2008. NCHS data brief, no 48.* Hyattsville, MD: National Center for Health Statistics. 2010.http://www.cdc.gov/nchs/data/databriefs/db48.pdf

<u>Progress</u>
Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?
Did the referred seniors get connected to the onsite programs and supports? Did they participate?

<u>Impact</u>
Did seniors requiring referral to medical care get those referrals?

Was there improvement in blood pressure control?

Compare pre- and post- blood pressure measurements individually for each senior and overall for the intervention group.

Q 48. Do you feel that your blood pressure is under control?

Q 41. Would you say that your health is excellent, very good, good, fair, or poor?

AREA OF INTEREST: DIABETES AND PHYSICAL ACTIVITY
INTERVENTION: BI-WEEKLY EXERCISE CLASS

Description

Senior serving organizations often hold exercise programs for their clients. To address the health risks for those seniors with diabetes and low levels of physical activity, sites will add a targeting, monitoring, and tracking component to their exercise programs. Targeting, monitoring participation, and tracking impact on health will help sites to help the seniors on their registry to work toward increasing their level of physical activity to the recommended guideline of 2.5 hours per week of moderate to vigorous exercise.

Activities

Targeted seniors are recruited and enrolled in an exercise program, either on site, or through a community partner. Seniors are instructed on how to log their exercise and keep a chart of their progress. Progress is recorded by site staff (if on-site through attendance records) if off-site through client's self-report/sharing of client's exercise log. Potential exercise programs for on-site programming are: *Stay Well* and Big Apple Senior Strollers—both programs have training material available through New York City's Department for the Aging.

Resources

- http://www.nyc.gov/html/dfta/downloads/pdf/health/stay_well_look.pdf
- www.silversneakers.com
- For clarification of the kinds of physical activity to be tracked measured, you may want to refer to Stanford's Patient Education Research Center http://patienteducation.stanford.edu/research/exercise.html

Measurement

Process

Did you reach the targeted seniors?
Were the volunteers regularly available for outreach efforts?
Did you offer the intervention activity (DSMP Course)?

Progress

Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?
How many of the targeted seniors completed the intervention?

Impact

Compare pre- and post- intervention results of the health indicator question on recommended level of physical activity, as well as health status rating.

Q 30 On average, how often do you do vigorous activities for at least 20 minutes that cause heavy sweating or large increases in breathing or heart rate?

Q 31 On average, how often do you do light or moderate activities for at least 30 minutes that cause only light sweating or slight to moderate increases in breathing or heart rate?

Q 41. Would you say that your health is excellent, very good, good, fair, or poor?

Area of Interest: Diabetes and Weight Management

Intervention: Nutrition Education and Weight Loss Program for Clients with Diabetes

Diabetes and Obesity are closely linked. Losing weight can help

- Lower blood sugar
- Help delay the use of, or reduce the need for, some medications
- Reduce blood pressure and cholesterol
- Reduce the risk of other serious complications, and
- Help clients feel better.

Description

A "Biggest Loser" club is a fun way to engage clients in a supportive way as they try to lose weight. The intervention is a two-fold activity where sites will provide information and education as well as a weekly weigh-in for monitoring participants' progress toward their weight goals.

Activities

Sites engage a health and wellness specialist or a nutritionist to provide education on the proper nutrition and strategies for changing eating habits. *Topics may include: Making the right food choices for effective weight loss, or developing an achievable and reasonable weight loss plan with your clients.* Sites will also set a time and location for a weekly weigh-in. At the weigh-in, site/program staff record each participant's weight each time so that their progress can be tracked. Sites may want to think of a a fun way to reward the "biggest loser" with a small incentive prize (it can be as simple as a free lunch at a senior center, or a cooking related item); sites may also choose to recognize those making the most progress at an organization event (if the participants are comfortable with this).

Resources

To implement this at your site you will need to consider and secure the following resources:

- A health and wellness coordinator or a nutritionist to provide nutritional education. If your center does not have this resource, a local health care provider may be willing to provide such a service.
- A scale – The scale needs to be reliable and accurate, easy to read, and available on a weekly basis for participants weigh-in use.
- Dedicated space – So that participants always know when and where they are meeting. Some sites do this in a public location, to encourage participation while others hold it in a private area. Depends on the culture of your participants and where they are most comfortable.
- *Your Weight Loss Plan*. American Diabetes Association, 2013. http://www.diabetes.org/food-and-fitness/weight-loss/getting-started/your-weight-loss-plan.html.

Measurement

<u>Process</u>

Did you reach the targeted seniors?

Were the volunteers regularly available for outreach efforts?

Did you offer the intervention activity (DSMP Course)?

Progress

Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?
How many of the targeted seniors completed the intervention?

Impact

Compare pre- and post- intervention weights over time per participant (week x minus week 1)

Q 41. Would you say that your health is excellent, very good, good, fair, or poor?

Area of Interest: Diabetes and increased Risk for Complications from Flu or Pneumonia
intervention: Immunization Clinic Targeting Seniors with Diabetes

Description

Older adults with diabetes are at higher risk for complications from flu and pneumonia. Are your clients with diabetes up to date on their shots?

Activities

Partnered with a health care provider or a pharmacy, offer a flu and pneumonia shot clinic at your site. Recruit participants for the shots clinic through targeted peer-to-peer volunteer outreach in addition to traditional activity marketing and announcement methods. See module on clinical preventive services and Medicare screenings Immunization intervention for description of a peer to peer immunization outreach program.

Resources

Resources for this program include a clinical provider for the immunizations, a location at your site to administer the immunizations, a health and wellness educator to educate seniors on the risks of going without the immunization, especially as it pertains to people with diabetes, and a project coordinator to track the participation of targeted seniors in the immunization clinic activity.

- The Peer-to-Peer Vaccination Outreach program was a Medicare Demonstration Senior Immunization Project developed and tested in Seattle. More information on it is available in
  Krieger, J. W., Castorina, J. S., Walls, M. L., Weaver, M. R., & Ciske, S. (2000). Increasing influenza and pneumococcal immunization rates: a randomized controlled study of a senior center–based intervention. *American Journal of Preventive Medicine, 18(2), 123-131. http://www.ajpmonline.org/article/S0749-3797%2899%2900134-8/abstract*

Measures (if offering both flu shot and pneumonia shot, please measure each activity separately)

Process

Did you reach the targeted seniors?
Were the volunteers regularly available for outreach efforts?
Did you offer the intervention activity (immunization clinic)?

Progress

Did the targeted seniors enroll in the intervention?
Did the targeted seniors participate consistently/complete the intervention activities?

Impact

Compare the number of targeted seniors who received an immunization pre- and post- intervention (measure rates for each vaccine separately) using the questions from the health indicators survey:

Q 21: During the past 12 months, have you had a flu shot?

Q 22: At was age was your most recent pneumonia vaccine?