NCACH Care Transformation Work Group

Project: 2015 Diabetes Education Survey

Timeframe: 6/2015 – 12/2015

A. Project Description

1. Conduct targeted surveys of patients, healthcare providers & health plan providers in relation to existing NCACH-region Diabetes Self-Management Education (DSME) programs to 1) determine knowledge & skills retention & self-management compliance, 2) to identify service gaps and 3) identify barriers to access, participation & referrals.

2. A proof-of-concept project: A geographically spread and diverse regional team will develop a replicable, scalable program with the potential for widespread application or use and identify process improvement opportunities. (The overall work group process evaluation is included in the NCACH Readiness Proposal, 11/23/15, pages 101 – 103.)

B. Participating Agencies

The core work group had 14 members. Participating agencies included: Amerigroup, Catholic Family and Child Services, Chelan-Douglas Health District, Columbia Valley Community Health, Community Choice, Confluence Health, Coulee Medical Center, Family Health Centers, Frontier Home Health and Hospice, Grant County Health District, Mid Valley Hospital, Molina Healthcare, North Central ESD 171, and Samaritan Healthcare.

C. Key Summary Data

The survey process created a snapshot of a small group of diabetic community members and regional providers. Thirty-two diabetic community members and forty-six providers in the four-county NCACH region completed surveys that addressed DSME programs and office-based diabetes education.

D. Key Client Data

- Clients identified their providers as the primary information source about DSME programs. Other marketing and communication strategies (radio, print, internet, word-of-mouth) were identified less often as information sources.
- Client responses indicated that DSME attendance at classes and 1:1 meetings with Diabetic Educators and Dietitians was scored as “a very helpful” to “helpful” experience. No clients identified education as unhelpful. Eighty-seven percent of participants reported they participated in both DSME classroom sessions and individual 1:1 sessions, rather than a single program format.
- Completion rates of “multiple session programs” were high (69% attended all classroom series session; 83% attended all multiple 1:1 sessions). The most prevalent barriers to DSME attendance at multiple sessions were identified as scheduling conflicts, illness, and expense.
- Despite encouragement to bring a support person to sessions by DSME program facilitators, over 50% of DSME programs were attended alone.
- Post-DSME participation, clients reported self-management compliance problems related to nutrition and diet (particularly food selection, food preparation and access to healthy foods), weight management, and access barriers to medications and testing equipment and supplies. Barriers to compliance included insurance issues and interference by health, work, or transportation.
- Compliance with blood sugar monitoring instructions was high, with 84% performing self-testing per instructions or more frequently than instructed.
- Compliance with screenings and examinations within the past 6 – 12 months was high for A1C tests, foot examinations, and eye dilation and examinations. Compliance was lowest for dental examinations with almost 30% reporting no dental examination within the past 12 months; a concern due to the higher risk of periodontal diseases and other oral conditions. Some clients did not know whether they had had a urine protein test or cholesterol test. Barriers to compliance included lack of insurance coverage and the belief that the missed exams were unnecessary.
- Compliance with routine medical visits was high as only 10% reported medical visits for diabetes management less than twice/year. No clients reported “making a doctor’s appointment” as a barrier to self-management.
- Clients identified diet and food planning, weight loss and understanding blood sugar as their primary continuing education and skill needs. Preferred education delivery formats were identified as meetings with a Diabetes Educator or Dietitian, group class attendance, primary care providers, and cooking class attendance.

E: Key Provider Data

DSME Programs

- Marketing and communication gaps about regional DSME programs were identified. Information about program dates, times, and locations was not readily accessible.
- Information about DSME attendance benefits and program curriculum was not readily accessible.
- Information about DSME program costs, reimbursement for attendance, rules regarding reimbursement, and office setting education reimbursement was not readily accessible.
- Providers with internal DSME programs and educators indicated that they referred to their own agency programs or individual educators. No participating providers referred to Community Choice, which offers Stanford DSME programs in English and Spanish without charge.
- Providers identified the top DSME referral barriers as class scheduling/availability, followed by cost and coverage concerns, client disinterest in attending (denial, compliance, reluctance), and transportation/travel issues.
- Okanogan County providers identified lack of expert resources to support patient teaching and the lack of programs throughout the county, requiring client travel to distant program sites, as significant barriers to DSME participation.
- While providers in Chelan, Douglas and Grant Counties indicated greater access to internal education resources and external programs than Okanogan County providers, concerns were expressed about limited educator work hours.
- Providers identified documentation issues as a barrier to follow-up and education reinforcement, including lack of program attendance documentation in the patient's electronic medical record and the inability to readily locate information if it was entered.

Education in the Office Setting

- Providers identified a lack of skilled staff availability (Diabetes Educator, Dietitian), lack of provider and staff time, and lack of standard education and printed materials as top barriers to office setting education.
- The most frequent education delivery methods used were verbal instruction, printed materials (from national organizations, vendors, and other agencies), and hands-on demonstrations. Few providers reported using either web-based instruction or audiovisual instruction for patient education delivery.
- Providers identified print material concerns as language and cultural appropriateness, reading level appropriateness (including non-readers), and life-style appropriateness.

F: Logic Model Anticipated Outputs and Achieved Outputs

Anticipated Project Outputs	Outputs Achieved
Once accomplished, our team expects to produce the following:	
A list of target population knowledge & skill gaps, service gaps, access gaps, compliance barriers & service barriers by PCP, delivery site, city &/or region from which a targeted plan can be developed.	Summary
A list of DSME access & referral barriers by PCP, delivery site, city, &/or region from which a targeted plan can be developed.	Summary
A community health improvement project metrics/evaluation template that can be modified for use by future teams.	A self-calculating, modifiable template was developed for future team use.
Number of target patients who participate.	32
# of target healthcare providers who participate.	46
# of target health plans who participate.	0 (survey not conducted)

G: Project Outcomes

This project helped create a dialogue between regional DSME program providers and medical providers and agencies and efforts have begun to address some identified problems:

- In Okanogan County, four diabetes healthcare workers are completing training to provide more regional support.
- Referral discussions between agencies have been initiated to increase referrals to Community Choice programs.
- Program marketing is being addressed (e.g., WIN 211 system enhancements, Stanford website postings).

H. Recommendations and Future Work Group Actions

1. As providers are in an excellent position to talk with their patients about diabetes, it would be helpful for them to have basic diabetes didactic and educational materials on hand. See Resources (page 8) for links to free materials.

2. The WA State DOH Diabetes Network has created a resource website of professional and patient information. Membership in the network is encouraged as well as contributions to the website's body of knowledge.

3. Consider expanding data collection to larger audiences. Refine questions to identify specific service and support gaps.

4. Inventory regional DSME programs, including training sites, languages, enrollment fees, and billing practices. Make all program information readily accessible to providers, the medical team and the community via WIN 211 website.

5. Clarify reimbursement by MCOs, insurance providers, and Medicare for DSME participation (including classes and 1:1 meetings with Diabetic Educators and Dietitians, repeat program attendance, etc.). Make information readily accessible to providers and the medical team.

6. Support the Confluence Health effort of the 2016 American Medical Group Foundation's (AMGF) "Together 2 Goal" Campaign. Investigate options for other regional providers to participate at the basic or similar campaign level for a standard approach to diabetes management and consistent regional care and measurement guidelines.

7. Explore options for DSME maintenance programs to provide ongoing patient support post program participation.

8. Identify and investigate diabetes medical home models (e.g., structure, roles, communication mechanisms, outcomes).

9. Support provider and medical team communications (medical record entries, bi-directional provider-patient communication). Develop communication pathways from DSME programs to providers, including programs that are conducted at external community agencies, to ensure information comes back to the medical team.

10. Encourage and support growth efforts of evidence-based programs and educator availability where service gaps are identified, particularly in Okanogan County.

11. Assess EMR enhancements related to DSME documentation, patient learning needs and barriers to learning, and follow-up.

12. Develop standard DSME program and instructor evaluation methods and program outcome measurements that will help assess program effectiveness and areas of improvement.

13. Develop a library of standardized patient education and communication tools.

14. Continue partnerships with DSME support organizations (e.g.,Group Health, Qualis Health)to maintain program support.

I. Complete Survey Summary

1. Client Surveys

Thirty-two community clients (identified as Chelan (16), Douglas (1), Okanagan (1) and Grant (12)) agreed to participate in a DSME survey. Clients were contacted and surveyed by the agency who had provided the client's DSME program. Surveys were conducted face-to-face or over the telephone. Surveyors collected some demographic information from the client's record. A small incentive (a $15.00 check) was offered to encourage participation and compensate for client's time.

Thirty clients had completed a DSME program within the past 12 months (21 ≤ 6 months; 9 > 6 months), either a classroom-based program or one or more one-on-one sessions with a Diabetes Educator or Dietitian. Twenty-four were identified as Type II diabetics, four as Type I, one as pre-diabetic, and one as "not diabetic" (identified in text as client spouse). Time since diagnosis ranged from > 5 years (20), 2 – 5 years (4) to less than 2 years (8). Twenty-five clients were identified as white, four as Hispanic/Latino, and others were not identified. Surveys were conducted in English or Spanish based on client preference. Twenty-six clients preferred English as their spoken language; four preferred Spanish. The average client age was 65. One client reported no formal education, 1 client reported a 6th grade education, 9 reported a high school level education, 13 had completed some college, and 7 held a college degree.

DSME Awareness and Referral

- Seventy-two percent of client respondents stated they were made aware of DSME programs by their medical provider. Less frequently, clients were made aware of DSME by a non-healthcare agency (e.g., YMCA, Senior Center, Aging and Adult Care) or independently sought information via the internet or media advertisements (n = 5 or less).
- Fifty-six percent of client records identify the medical provider or a member of the medical team as the DSME referrer. Less frequently, client records indicate referrals by non-healthcare agencies (e.g., YMCA, Senior Center) (26%), self-referrals (11%) or by an insurance agency (4%).

DSME Attendance by Location

- Fifty-three percent of DSME attendance occurred in Chelan County (16), 40% in Grant County (12). One each was reported in Okanogan County and Douglas County.
- Ten clients attended Samaritan Healthcare programs (33%), 9 attended Community Choice programs (30%), 6 attended Confluence Health programs (20%), 4 attended Columbia Valley Community Health programs (13%) and 1 attended a Tricare program. Tribal Health DSME program participation in Okanogan County was not included in this survey.

DSME Format and Attendance Compliance

- Based on client record reviews, 25 clients (83%) attended classroom-based sessions presented in English, 3 (10%) attended classroom-based sessions presented in Spanish, and 2 (10%) attended 1:1 individual sessions. However, more than 2 clients self-reported attending 1:1 sessions.

DSME Attendance Compliance

- When the DSME class series or 1:1 sessions involved more than 1 session, 70% stated they attended all sessions. Those who did not cited scheduling conflicts (3), illness (2), other commitments (2) and lack of insurance coverage (2).

DSME Feedback

- Thirty-two clients (76%) found DSME class sessions "Very Helpful"; 24% found them "Somewhat Helpful". Twenty-seven clients (64%) found DSME 1:1 sessions "Very Helpful"; 32% found them "Somewhat Helpful". No clients scored DSME as "Not Helpful".

DSME Support

- Nineteen clients attended DSME alone and 13 took a support person with them. Support person participation was higher at group sessions than 1:1 sessions.

Adherence to Self-Management Plan Compliance

- In regards to the client's medication compliance, meal compliance and exercise compliance, clients ranked adherence to medication compliance highest (28="Very Well"; 9="Fairly Well"), followed by meal compliance (9="Very Well"; 14="Fairly Well", 8="Not Very Well, 1="Poorly"), and exercise compliance lowest (10="Very Well", 7="Fairly Well", 9="Not Very Well, 5="Poorly").
- In regards to blood sugar testing compliance, the frequency of testing instructions the client received (number of testing times per day) aligned closely with the client's stated frequency of testing performance.
- Clients identified the following barriers to self-management compliance: problems getting exercise (9), problems locating healthy foods (5), problems getting blood sugar testing supplies (4), problems getting medications (3), and problems getting testing equipment (2). One reported a transportation problem and one reported poor health.
- No clients indicated a problem making an appointment with their doctor. Over 90% of respondents saw their provider about their diabetes at least 2 times per year (2x/year=11, 3x/year=4, 4x/year=9, >4x/year=5).

Adherence to Screening and Examinations

- Ninety-seven percent reported completing an A1C and BP screening within the past 6 months.
- Sixty-nine percent reported completing a dental exam within the past 12 months.
- Clients were least sure of whether they had completed a cholesterol test or urine test for protein.
- Financial barriers ("no insurance", "no money", "unsure about insurance coverage") were the most prevalent reasons given for non-adherence to routine screening and exams (8), followed by client belief that screening and exams were not necessary (4) and scheduling/time constraint problems (2).

Importance of Disease Self-Management vs. Actual Self-Management Performance

- Seventy-seven percent believed it was "Very Important" for them to self-manage their disease and 23% believed it was "Somewhat Important". In response to how well they were actually self-managing diabetes, 33% believed they were managing it "Very Well", 63% "Fairly Well" and 3% "Not Very Well".

Continued Education Needs

- Clients identified "diet and food planning" as the top self-management information need (15), followed by weight loss (7), understanding blood sugar (4), and stress reduction (3). Three reported "no needs".

Best Education Delivery Method

- Clients were asked to identify the best way to get the information they need about diabetes self-management. The top responses: attend a 1:1 meeting with a Diabetes Educator or Dietitian (n=10); attend a group class (n=9); attend a cooking class (n=7); and get information from medical provider (n=7). Other methods received less responses (n≤4), (e.g., provider contact by phone, internet based education, and support group participation).

2. Provider Surveys

Forty-six providers from Chelan (18), Douglas (4), Okanagan (16) and Grant (8) counties agreed to participate in a DSME survey. Provider respondents included MDs (22), DOs (1), ARNPs (13), PA-Cs (9), and Others (1). Seventeen providers self-identified their specialty as: Family Practice (14), Pediatrics (1), Internal Medicine (1), and Primary Care/ACC/Cardio/BH/Geriatrics (1). Providers received their invitation to participate face-to-face or via email; the survey tool was completed electronically. Questions were not mandatory and some respondents did not respond to all questions.

Provider DSME Referrals

- Twenty-three providers stated they referred their diabetic patients to DSME classes: Confluence Health (English) (7), Columbia Valley Community Health (Spanish) (7), Samaritan Healthcare (English) (5), and Columbia Valley Community Health (English) (4). Community Choice, an independent healthcare education agency that provided Stanford DSME classes in English and Spanish, received 0 referrals by respondents for either class type.
- Thirty providers stated they referred their diabetic patients to 1:1 instructional sessions with a Diabetes Educator or Dietitian: Confluence Health (12), Columbia Valley Community Health (6), Samaritan Healthcare (5), North Valley Hospital (4), Mid Valley Hospital (2), and Seattle Children's Hospital (1).
- Internal agency referrals were the most frequent method of provider referrals. Four providers referred to agencies other than their own with DSME programs. Ten responses indicated a "search" for program information was conducted, via newspaper, internet, MCO, or asking other employees to search.

Referral Barriers and Recommendations

- Providers identified the biggest barriers to referrals as: class scheduling/availability (10), cost and coverage (8), patient denial/reluctance/compliance (8), transportation (7), lack of resources (5), lack of time (4), and language barriers (4).
- Providers identified the top patient-reported barriers to DSME participation as: costs/lack of coverage (10), already knowing the information (9), time commitment (7) and transportation (5).
- Providers stated patients reported similar rationale for not attending or dropping attendance at DSME, with the top issues being time commitment (11), costs/lack of coverage (9), already knowing the information (6), travel/distance (5).
- Twelve providers stated they did not refer diabetic patients to DSME programs. Rationale for not referring patients included lack of availability/class locations (9) particularly in Okanogan County, costs/lack of insurance (3), lack of knowledge about referral options (2), patient compliance (2), sporadic educator hours (1), and time required (1). Non-referring providers recommended making services available throughout Okanogan County, providing low to no cost programs, hiring Diabetic Educators for agency support, and providing more opportunities in Spanish.

Provider Concerns Regarding DSME Participation

Program content was identified as a potential concern. Tailoring was requested to meet client's specific self-management learning needs and needs specific to literacy level, language, culture and real-life living situations. Lack of follow-up to one-time sessions created gaps for those clients unable to take in all of the information presented at one session.

Program Marketing

Providers without internal agency resources (and even some who had internal resources) identified challenges in locating program information (dates, times, language, etc.). A few reported they were unaware of the existence of DSME programs in the region or the availability of DSME within their organization.

A search by work group members for regional DSME program information supported the need for additional marketing and communication. Insufficient marketing and communication made it difficult for providers and clients to locate programs.

Program Costs

Providers identified program costs and insurance coverage concerns as barriers to referrals and patient attendance. Providers identified costs and cost concerns as a frequent ***patient-reported*** barrier to DSME attendance and to completion of multi-session programs. Providers had questions about DSME class and one-on-one instruction costs, which costs were covered by insurance companies, and whether any requirements/restrictions applied to coverage.

Lack of Resources

Providers identified lack of resources (skilled educators, class availability and access, time and appropriate languages) as significant barriers to DSME. Providers in Okanogan County, in particular, reported limited access to DSME programs and to Diabetes Educators and Dietitians. Pediatric patients, once diagnosed, are referred to Children's Hospital in Seattle for follow-up care, in part due to lack of pediatric-specific Diabetes Educators.

Program Communication and Follow-Up

Providers identified a lack of communication regarding DSME program attendance and completion – "How soon will a client attend after referral?", "Did the client follow-through with program attendance?", "Did the client attend all sessions of a multi-session program?", "What are the clients continuing education needs?"

- DSME orders were not flagged or color-coded to indicate whether the order was placed or completed.
- Only 9 providers reported receiving an electronic notice when the client attended DSME; 1 reported "sometimes".
- Twenty-four providers reported that their agency EMR reflected DSME attendance. It was noted that some documentation was scanned into a patient education folder. An intentional search was required to locate information, but providers were not always prompted to look for it. 9 providers stated DSME attendance was not recorded in the patient record and 1 provider did not know whether it was or not.

Office-based Diabetes Education

Of the 46 survey respondents, 61% reported that diabetes education was provided in their office setting.

- Eighteen providers identified themselves as the ***best*** person to educate patients about diabetes in the office setting, followed by the office RN (15), agency-based Diabetic Educator (9) and agency-based Dietitian (8).
- Twenty-three providers identified themselves as the person who provides the ***majority*** of diabetes patient education in the office setting, followed by the RN (8) and Diabetes Educator (8).
- Ninety-three providers reported using verbal instruction as their education method. Printed educational materials from varying sources (national organizations = 18; vendors = 9, other agencies = 6) were also used. 16 used hands-on demonstration and return demonstration. 2 reported web-based and 2 reported audio video methods.
- Time (8) and patent print materials (8) were the top barriers/missing resources to education delivery, followed by lack of an onsite educator (diabetic educator or dietitian (7). Print material issues were identified as: "too wordy", reading level "too high", "no pictures", "no color printer option" and "Spanish-English language" barriers. One provider identified room constraints ("Patient rooms need to be filled. The rooms can't be tied up with a patient who needs education. There is nowhere for education to take place.") Additional comments: "Turnaround time is too short. The visit is time-limited and doesn't allow for education" ; "We don't have resources (other educators) to assist with patient education when the patient is at the office visit (when it would be the best time to address it)".
- Providers requested clarification on office-based diabetes education reimbursement (e.g., when education is provided by the RN, provider or other resource), flat rate reimbursement clarification, and any requirements required for reimbursement (such as scheduling frequency or repetition).

J: Resource List

1. **Washington State Diabetes Network**

   http://diabetes.doh.wa.gov/washington-state-diabetes-network

2. **National Diabetes Education Program (**1-800-438-5383)

   http://www.niddk.nih.gov/health-information/health-communication-programs/ndep/Pages/index.aspx

3. **Diabetes Pro: Professional Resources Online from Staywell/Krames**

   http://specialty.kramesstaywell.com/healthcareprovider_orderpage

4. **National Diabetes Information Clearinghouse** (1-800-860-8747)

   www.diabetes.niddk.nih.gov

5. **CDC National Diabetes Prevention Program**

   http://www.cdc.gov/diabetes/prevention/index.html

6. **Pre-Diabetes Risk Assessment**

   https://doihaveprediabetes.org/