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Implementation of Diabetes Education Services and Remote Hypertension Monitoring in Community Pharmacies

Leticia R. Moczygemba, PharmD, PhD
Professor, Health Outcomes Division
Associate Director, TxCORE
University of Texas College of Pharmacy

The University of Texas at Austin
College of Pharmacy

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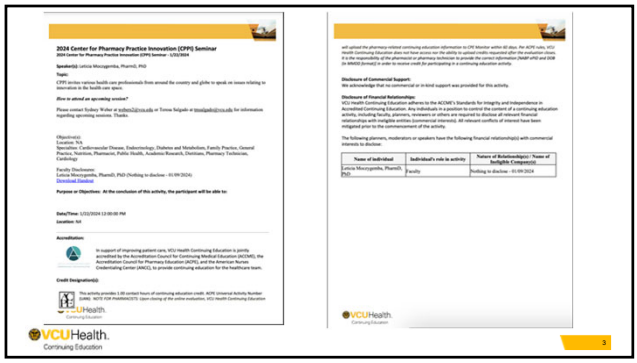

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- Portions of the work presented were supported by a cooperative agreement with the Centers for Disease Control and Prevention [DP18-1815 Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease, and Stroke, 2020-2023] and [DP18-1817 Innovative State and Local Public Health Strategies to Prevent and Manage Diabetes, Heart Disease, and Stroke].

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Objectives

- Briefly describe:
  - Prevalence and cost burden of diabetes
  - Diabetes Self-Management Education and Support (DSMES) and pharmacist roles in DSMES
- Describe implementation of a program to increase engagement of pharmacists in DSMES
- Briefly describe:
  - Prevalence and cost burden of hypertension
  - Remote patient monitoring (RPM) and pharmacist roles in RPM
- Describe implementation of a pilot hypertension RPM program

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Diabetes Prevalence and Economic Impact

8.7% of adults in the US have **diagnosed diabetes**

$412.9 billion spent each year on care for **diabetes** in the US

https://www.diabetes.org/about-us/statistics/about-diabetes
https://www.niddk.nih.gov/health-information/health-statistics/diabetes-statistics

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Diabetes Prevalence and Economic Impact

12.3% of adult **Texans** have **diagnosed diabetes**

$25.6 billion spent each year on care for **Texans** with **diabetes**

https://www2.diabetes.org/sites/default/files/2023-03/ADV_2023_State_Fact_sheets_all_rev_TX.pdf

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What is Diabetes Self-Management Education and Support (DSMES)?

- National DSMES Standards
  "The purpose of DSMES is to **give people living with diabetes the knowledge, skills, and confidence to accept responsibility for their self-management**. This includes collaborating with their healthcare team, making informed decisions, solving problems, developing personal goals and action plans, and coping with emotions and life stresses."
  - High diabetes-related morbidity and mortality
  - Increase patient self-management behaviors
    - 10-hour patient education program based on the 7 AADE Self-Care Behaviors
    - **People living with diabetes spend less than 1% of their time with their providers**
      - Self-management skills critical to achieving good outcomes

https://diabetesjournals.org/care/article/45/2/484/140905/2022-National-Standards-for-Diabetes-Self

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Key Requirements for DSMES Accreditation

- Letter of support from organization
- Identify at least one pharmacist team member who is willing to complete 15 hours of diabetes CE annually
- Gather data that describes community demographics for the area where DSMES will be provided
- Complete and document 10 hours of education with a patient over a minimum of 5 encounters
- Documenting baseline and follow-up data for clinical outcomes; for accreditation must have a quality improvement plan

https://diabetesjournals.org/care/article/45/2/484/140905/2022-National-Standards-for-Diabetes-Self

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DSMES Benefits

Improved A1C

Improved blood pressure and cholesterol

Fewer or less severe complications

Decreased health care costs

https://www.cdc.gov/diabetes/dsmes-toolkit/background/benefits.html

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DSMES Benefits

Higher medication adherence

Increase in healthy lifestyle behaviors

Increase in self-efficacy

https://www.cdc.gov/diabetes/dsmes-toolkit/background/benefits.html

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Pharmacist Roles in DSMES

- Pharmacist is one type of DSMES provider
  - Indirect – member of DSMES team
    - 1/3 of DSMES programs have a pharmacist involved in some role
  - **Direct – community pharmacy**
- Accredited DSMES **pharmacy** sites are eligible to be reimbursed by Medicare

Rinker et al. The 2017 Diabetes Educator and the Diabetes Self-Management Education National Practice Survey. *The Diabetes Educator*. 2018;44(3):260-268.

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DSMES Value Proposition

< 5% of Medicare beneficiaries

6.8% of Privately Insured beneficiaries

participate in DSMES within the first year of diabetes diagnosis

DSMES IS UNDERUSED!

https://www.cdc.gov/diabetes/dsmes-toolkit/business-case/index.html

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DSMES Value Proposition

Accredited programs can bill Medicare for DSMT*

Link to quality measures

*The Centers for Medicare & Medicaid Services (CMS) uses the term training instead of education when defining the reimbursable benefit (DSMT). The term DSMT is used specifically as related to billing.

https://www.cdc.gov/diabetes/dsmes-toolkit/business-case/quality-measures.html
https://www.cdc.gov/diabetes/dsmes-toolkit/business-case/index.html

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TXDSHS/CDC 1815 UT College of Pharmacy DSMES Activities

Describe pharmacists' readiness and capacity to provide DSMES
- Survey

Implement tools and strategies to support pharmacy DSMES accreditation

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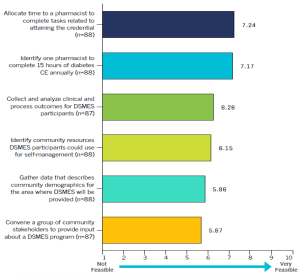
Texas Community Pharmacy Diabetes Services

108 Texas community pharmacists were surveyed as part of a Centers for Disease Control and Prevention/Texas Department of State Health Services grant on current diabetes services offered in their community pharmacy practice.

Respondent pharmacy an Association of Diabetes Care & Education Specialists (ACDES) or American Diabetes Association (ADA) recognized provider of Diabetes Self-Management Education and Support (DSMES)

Feasibility on a scale of 1 to 10 (1= not feasible, 10= very feasible) to accomplish each requirement for ADCES or ADA recognized DSMES programs



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Primary Partner

CPESN TEXAS

Mission Statement: The goal of CPESN Texas is to improve the overall health of the citizens of the state of Texas by focusing on quality performance in all aspects of pharmacy practice to include implementation of enhanced pharmacy services, provision of high quality patient care, collaboration with other health care providers and key stakeholders, and working closely with payors to improve overall health care resources, utilization and costs.

Benjamin McNabb, PharmD
Angelina Tucker, PharmD

Texas.cpesn.com

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Program Description

Each selected pharmacy received funding which included funds to cover the ADCES accreditation fee and resources to guide DSMES implementation. The program included:
- A step-by-step checklist and pathway to meeting requirements for DSMES accreditation
- Access to a mentor
- Biweekly group conference calls to guide the accreditation process
- Disease state-specific curriculum
- Patient-facing resources
- Pharmacist resources

In addition to the requirements for ADCES accreditation, it is was also expected that selected pharmacies:
- Participated in biweekly group phone calls
- Provided progress reports during phone calls
- Completed mid- and endpoint surveys
- Signed a letter of agreement

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Selection of Pharmacies

Selection Criteria

Resources and Capacity
Past Experience with Diabetes and Other Clinical Services
Existing Relationships with Healthcare Providers to Support DSMES
Community Need
Motivation
Ideas for Partner Engagement and Sustainability

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Cohorts

- Cohort 1 – August 2020
  - 7/7 accredited; 2 had branch sites so total = 10
- Cohort 2 – September 2020
  - 2/12 accredited*
- Cohort 3 – September 2021
  - 6/10 accredited**
- Cohort 4 – September 2022
  - 7/9 accredited

Total of **25** pharmacies accredited

*Majority of cohort 2 (9 pharmacies) stopped participation due to COVID-related constraints
**3 pharmacies dropped out due to staffing shortages and 1 for health reasons

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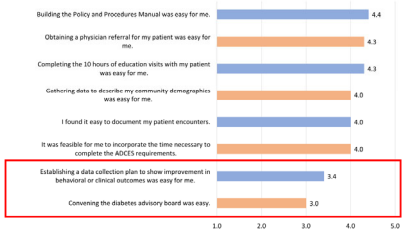
Perceptions of Ease of Completing Action Items for ADCES Accreditation



Responses were on a scale from 1 = strongly disagree to 5 = strongly agree

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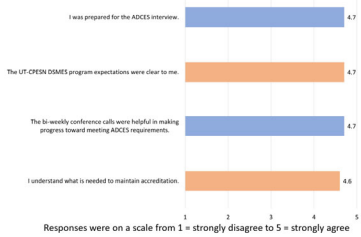
Perceptions of Helpfulness of DSMES Program



Responses were on a scale from 1 = strongly disagree to 5 = strongly agree

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Time Spent Completing Program Activities

- Number of weeks to complete program
  - 12 – 30 weeks
- Time per week spent on accreditation activities
  - 2 – 5 hours

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Facilitators of Success

"The bi-weekly meetings were key for getting accredited. Navigating this process without having the ability to ask questions and get clarification would have been nearly impossible."

"The support that I received throughout the program helped to keep our pharmacy on track. I had a place to go to when I had any questions, and they were always answered clearly with detail."

"The weekly/biweekly meetings were very helpful. It helped me hold myself accountable to make sure DSMES projects were completed despite a heavy workload."

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Challenges

"Fitting the work into my daily routine with COVID and then COVID vaccinations."

"Meeting with our advisory board. Ended up emailing and following up with a phone call."

"Completing the training with the patient due to his changing schedule. (He had to reschedule 3 or 4 classes with us)"

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Engagement Post-Accreditation

- DSMES Monthly Workgroup Meetings
  - Launched April 2021
    - Expert presentations
      - Tips for Getting Started After DSMES Accreditation
      - Building a Business Model for DSMES
      - DSMES Resources
    - Share success stories and challenges
    - Increase awareness of ADCES and other resources

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Next Steps

- Cohort 5
- Continue to learn about best practices for billing
- Integration of social determinants of health assessment

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1. Which of the following are benefits of DSMES?

a) Increases medication adherence
b) Lowers A1C
c) Lowers blood pressure
d) All of the above

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1. Which of the following are benefits of DSMES?

a) Increases medication adherence
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c) Lowers blood pressure
d) All of the above

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2. Which of the following statements is true?

a) Accredited DSMES pharmacy sites are eligible to be reimbursed by Medicare.
b) Accredited DSMES pharmacists are eligible to be reimbursed by Medicare.
c) The majority of Medicare beneficiaries who are eligible for DSMES have participated in DSMES.
d) None of the above

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2. Which of the following statements is true?

a) Accredited DSMES pharmacy sites are eligible to be reimbursed by Medicare.
b) Accredited DSMES pharmacists are eligible to be reimbursed by Medicare.
c) The majority of Medicare beneficiaries who are eligible for DSMES have participated in DSMES.
d) None of the above.

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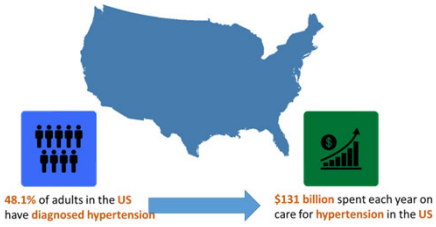
Hypertension Prevalence and Economic Impact



https://www.cdc.gov/bloodpressure/facts.htm

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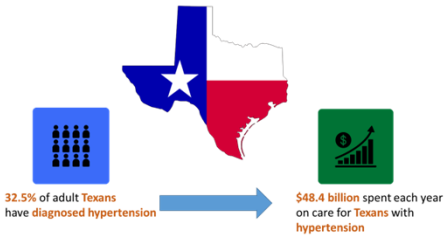
Hypertension Prevalence and Economic Impact



https://www.dshs.texas.gov/sites/default/files/heart/pdf/Texas-Public-Health-Strategies_CVDS-2019-2023-Final.pdf

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TXDSHS/CDC 1817 UT College of Pharmacy Activity

Develop and test strategies for provider referrals (with a focus on hypertension)
- Provider engagement

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Remote Patient Monitoring (RPM)

RPM utilizes technology to allow health care providers to monitor patients' physiologic data and manage treatment plans outside of the typical clinical setting.

It can be used to manage either acute or chronic conditions.

Examples of RPM
- Blood pressure monitoring
- Weight
- Pulse rate and oxygen levels
- Blood glucose monitoring
- Respiratory flow rate

https://www.cms.gov/files/document/telehealth-toolkit-providers.pdf

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Pharmacists as RPM Providers

Key Roles of Pharmacists in RPM
- Patient education
- Continual monitoring of disease state
- Interprofessional collaboration
- Collecting, analyzing, and interpreting physiological patient data

Under CMS, pharmacists are not recognized as qualified healthcare professionals or clinical staff.

However, pharmacists can work in two settings for RPM:

1. Pharmacies can collaborate with physicians to work as auxiliary personnel, in which pharmacists or technicians are allowed to help with RPM (under general supervision). However, the pharmacy cannot directly bill Medicare for these services.

2. In traditional physician collaboration, pharmacists work within the physical clinic setting with the physician and practice agreements with qualified healthcare professionals, as employees or contracted personnel, to provide RPM services to patients.

Abubakar A et al. The Emerging Role of Community Pharmacists in Remote Patient Monitoring Services. *Pharmacy*. 2020;8,166.

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RPM Hypertension Pilot (2022 – 2023)

- Application process (similar to DSMES)
- 6 pharmacies
- Outcomes
  - Number of referrals
  - After pilot, number of pharmacies who enter into a contract with physician for hypertension RPM

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Program Description

The program included:

- Biweekly group conference calls to guide the implementation process
- Access to a RPM platform which included blood pressure devices for 5 patients
- Pharmacist resources for engaging providers for referrals
- Education about pharmacist billing opportunities for RPM in Medicare patients

It was also expected that selected pharmacies:

- Participated in biweekly group phone calls
- Provided progress reports during phone calls
- Completed an endpoint survey
- Signed a letter of agreement

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Physician Interactions

Communication Modes (n = 6)

Initial Outreach
In-person visit (83.3%)
Telephone call (66.7%)
Email (16.7%)
Fax (16.7%)
Follow-up
Telephone call (66.7%)
In-person visit (33.3%))
Fax (33.3%)
Email (16.7%)

Strategies Used (n = 6)

Reviewed talking points (100%)

Left referral forms (66.7%)

Created list of mutual patients (66.7%)

Used a flyer to describe program (33.3%)

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Referrals and Patient Interactions

- A total of 27 patients referred and enrolled (across 6 pharmacies)
  - 3 – 7 patients per pharmacy

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Referrals and Patient Interactions

Enrollment occurred face-to-face after a physician referral

Pharmacists checked the dashboard daily

If elevated reading, pharmacist contacted patient and provider (if applicable)

If in range, most pharmacists checked in weekly to biweekly with patients

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Pharmacist Recommendations to Physicians

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Number of Recommendations (50% accepted)

Patient was on metoprolol 100mg and had consistently high blood pressure readings (systolic 160 – 170 mm Hg/diastolic 95 – 100 mm Hg). The pharmacist recommended to add lisinopril 20mg. The physician added this medication to the patient's treatment plan and results in lowering blood pressure were achieved almost immediately.
Patient was taking clonidine and the readings were in and out of range. The pharmacist recommended changing the medication to an angiotensin receptor blocker. Based upon this the physician discontinued the clonidine and started losartan the patient's goal blood pressure was achieved.
A patient with a new diagnosis of hypertension and prescribed lisinopril 5mg. She was having periods of spiked blood systolic blood pressure (160 – 180 mm Hg) and would increase the dose to 10mg. This resulted in "chasing the blood pressure" and was hard for the patient to manage. The pharmacist recommended changing the medication to losartan. The physician accepted the recommendation and the patient's blood pressure stabilized.

Each pharmacist made at least 2 recommendations

Pharmacists followed up with biweekly to monthly reports.

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Pharmacist Perceptions of Facilitators of Provider Referrals

Pre-established working relationships with physicians prior to the program. In-person meetings on a regular basis to keep the programs fresh in their minds.
After explaining the program to the provider, I selected mutual patients and approached the provider. I went with their referral form already complete and she was excited to get each one started with the service. She ended up wanting to send more referrals over after receiving the data and recommendations the first 2 months.
Identifying specific patients on our side that would benefit from monitoring and requesting the referral.
Having an existing relationship and specific patients in mind were most successful for me
For the pilot program, we only utilized one referring physician to send us anyone who she currently saw in practice that she thought would be a good fit. Through this, we had up to 4 patients at one time.
I believe my relationship with the physicians increased the referral rate. When I did not have a relationship the prescriber would not send in referral.

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Number of Physician Collaborations

- 3/6 pharmacists initiated discussions with providers about moving forward with a contract
  - 1 finalized a contract
  - 1 is still in progress

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Implementation Challenges

- Manual nature of physician reports
- Staffing shortages

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Next Steps

- Expand to pharmacies in regions of Texas with high prevalence of hypertension rates

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3. For RPM, CMS recognizes pharmacists as:
   a) Qualified healthcare professional
   b) Auxiliary personnel
   c) Clinical staff
   d) None of the above

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3. For RPM, CMS recognizes pharmacists as:
   a) Qualified healthcare professional
   b) Auxiliary personnel
   c) Clinical staff
   d) None of the above

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4. Which of the following are roles for pharmacists in RPM?

a) Provide patient education
b) Collect and interpret data
c) Collaborate with physicians and other health care professionals
d) All of the above

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4. Which of the following are roles for pharmacists in RPM?

a) Provide patient education
b) Collect and interpret data
c) Collaborate with physicians and other health care professionals
d) All of the above

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Questions

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