

Center for Pharmacy Practice Innovation (CPPI) Seminar

Survey of CDC-Recognized Community Pharmacies Providing the Diabetes Prevention Program
Assessment of a Diabetes Prevention Program using the Theoretical Domains Framework: A Qualitative Analysis -
11/15/2021

Provided by CPPI/Department of Pharmacotherapy and Outcomes Science

Speaker(s): Dave Dixon, PharmD, FACC, FCCP, FNLA, BCACP, BCPS, CDE, CLS; Teresa M Salgado, MPharm, PhD

Topic: CPPI invites various health care professionals from around the country and globe to speak on issues relating to innovation in the health care space.

Purpose or Objectives: At the conclusion of this activity, the participant will be able to:

- 1 Review changes in health care delivery that likely impact pharmacy practice.
- 2 Describe current trends in contemporary pharmacy practice as they relate to interprofessional collaboration.
- 3 Discuss practice innovations designed to improve health outcomes.
- 4 Discuss role delineation for pharmacists on the interprofessional health care team.

Date/Time: 11/15/2021 12:00:00 PM

Accreditation:



In support of improving patient care, VCU Health Continuing Education is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designation(s): 0.75 ANCC contact hours.



This activity provides 0.75 contact hours of continuing education credit. ACPE Universal Activity Number (UAN): Pharmacist: JA4008237-0000-21-044-L01-P Technician: JA4008237-0000-21-044-L01-T

NOTE FOR PHARMACISTS: Upon closing of the online evaluation, VCU Health Continuing Education will upload the pharmacy-related continuing education information to CPE Monitor within 60 days. Per ACPE rules, VCU Health Continuing Education does not have access nor the ability to upload credits requested after the evaluation closes. It is the responsibility of the pharmacist or pharmacy technician to provide the correct information [NABP ePID and DOB (in MMDD format)] in order to receive credit for participating in a continuing education activity.

Disclosure of Commercial Support:

We acknowledge that no commercial or in-kind support was provided for this activity.

Disclosure of Financial Relationships:

The following planners, moderators or speakers have the following financial relationship(s) with commercial interests to disclose:

Name of individual	Individual's role in activity	Name of commercial interest/Nature of relationship
Dave Dixon, PharmD, FACC, FCCP, FNLA, BCACP, BCPS, CDE, CLS	Activity Director, Faculty	Contracted Research-Boehringer Ingelheim Vetmedica GmbH - 08/04/2021
Teresa M Salgado, MPharm, PhD	Faculty, Planning Committee	Nothing to disclose - 10/25/2021
Dana Burns, DNP	Planning Committee	
Evan Sisson, Pharm.D., MSHA, BCACP, CDE, FAADE	Planning Committee	Nothing to disclose - 05/18/2021
Madeleine Wagner, BA	Planning Committee	

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VCU School of Pharmacy

Survey of CDC-Recognized Community Pharmacies Providing the Diabetes Prevention Program

Dave Dixon, PharmD

Associate Professor and Chair

Department of Pharmacotherapy & Outcomes Science

Co-Director, Center for Pharmacy Practice Innovation

VCU School of Pharmacy

Disclosures

- Drs. Dixon and Salgado are supported by CDC Cooperative Agreement NU58DP006620-InnoVAte

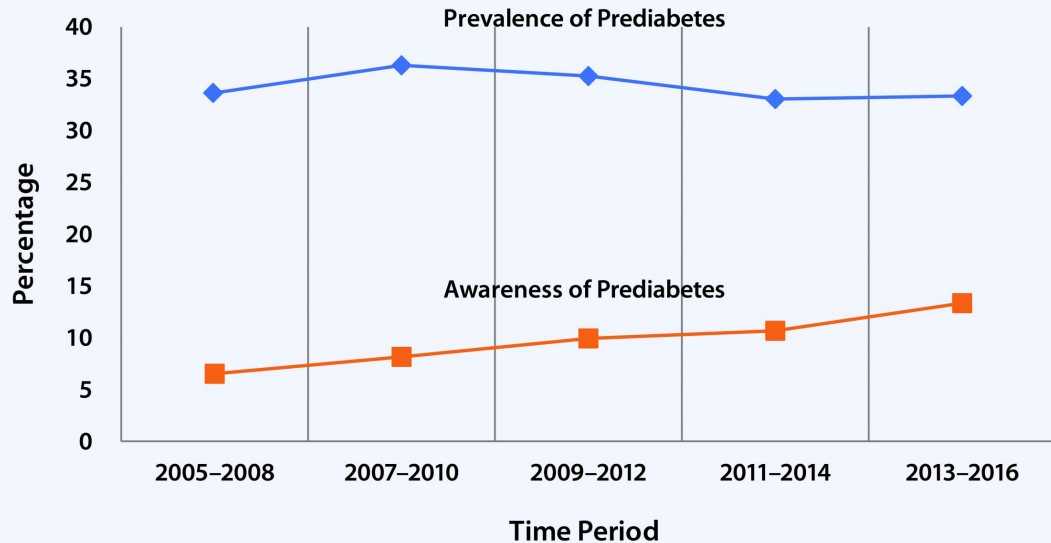
Objectives

- Describe prediabetes and development of the National Diabetes Prevention Program (NDPP).
- Summarize a survey research project characterizing CDC-recognized community pharmacies providing the NDPP.

Definition of Prediabetes

- Blood sugar higher than normal but not enough to be considered diabetes.
- Diagnosis criteria for prediabetes
 - A1c of 5.7-6.4%
 - Fasting blood sugar of 100-125 mg/dL
 - An OGTT 2-hour blood sugar of 140-199 mg/dL

Prevalence and Awareness of Prediabetes



Today, **1 in 3** US adults meet the criteria for prediabetes

<https://www.cdc.gov/diabetes/library/reports/reportcard/prediabetes.html>

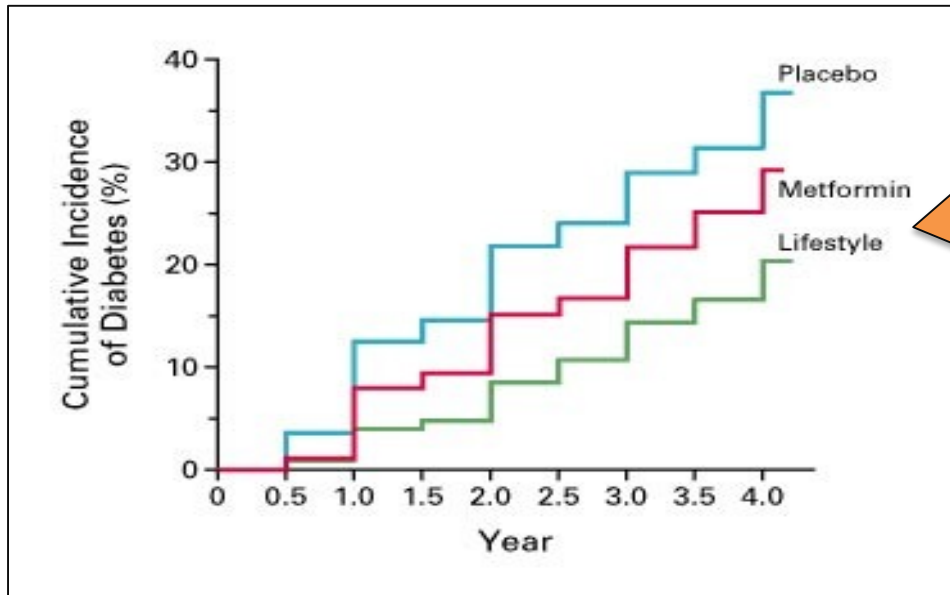
Question: Based on the Diabetes Prevention Program trial, which intervention is most effective at reducing the incidence of type 2 diabetes?

- A. Metformin
- B. Lifestyle
- C. Troglitazone
- D. Glipizide

Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin (DPP)

- Intensive Lifestyle Intervention
 - 16-lesson curriculum covering diet, exercise, and behavior modification
 - Taught on a one-to-one basis during the first 24 weeks, was flexible, culturally sensitive, and individualized
 - Subsequent individual sessions were held monthly and group sessions with the case managers reinforced behavioral changes

Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin (DPP)

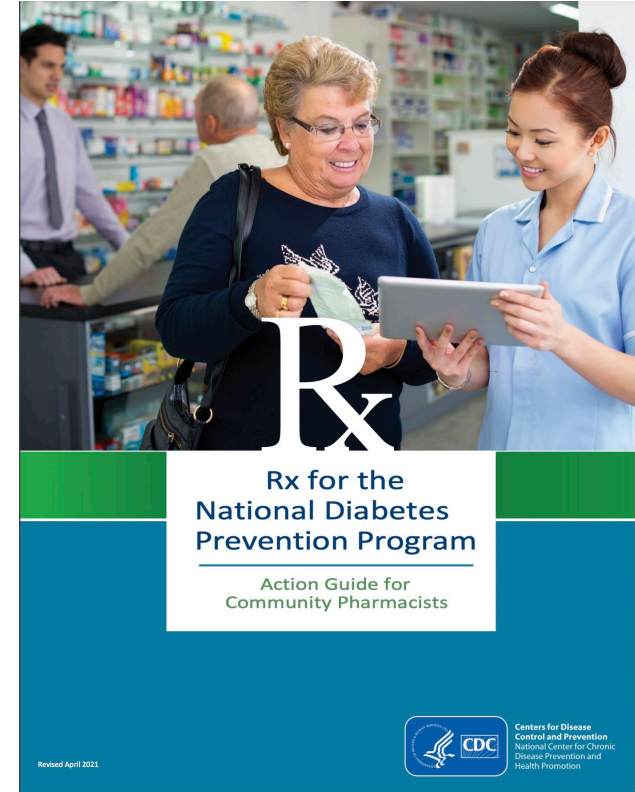
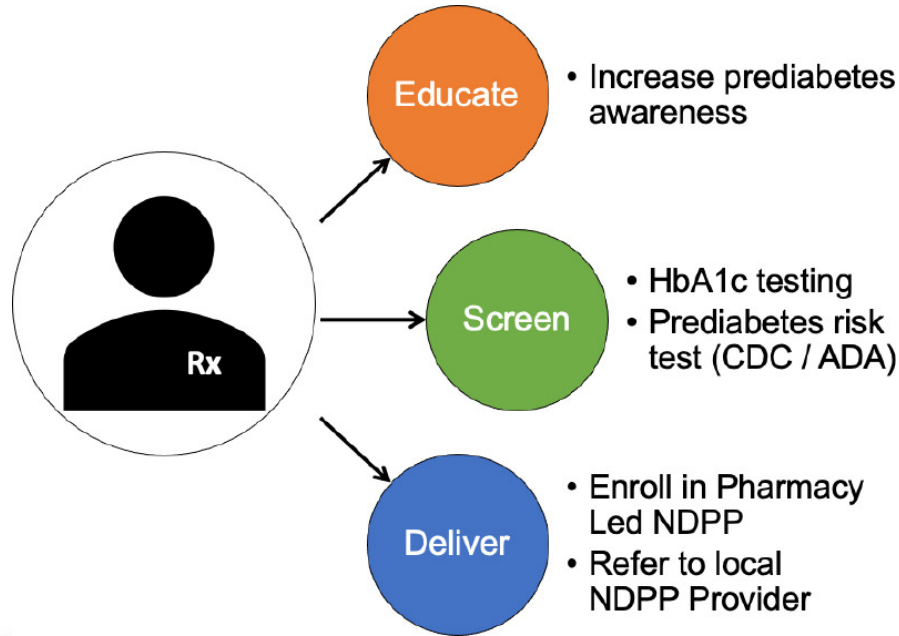


Incidence of diabetes was 58% lower in the lifestyle-intervention group and 31% lower in the metformin group, compared to placebo

History of the National Diabetes Prevention Program (NDPP)

- 2010
 - Congress authorizes the CDC to establish the NDPP, a one-year lifestyle program based on the original DPP study
- 2016
 - CMS finalizes a rule to expand coverage of the NDPP starting January 1, 2018
- 2017
 - CDC awards grants to 12 states to build out the NDPP infrastructure in underserved areas

Role of Community Pharmacies in Supporting NDPP



Study Objectives

- It is currently unknown the extent to which community pharmacies are involved as providers of NDPP.
- Study Objectives
 - Characterize CDC-recognized community pharmacies offering the NDPP.
 - Determine the impact of COVID-19 on program delivery.

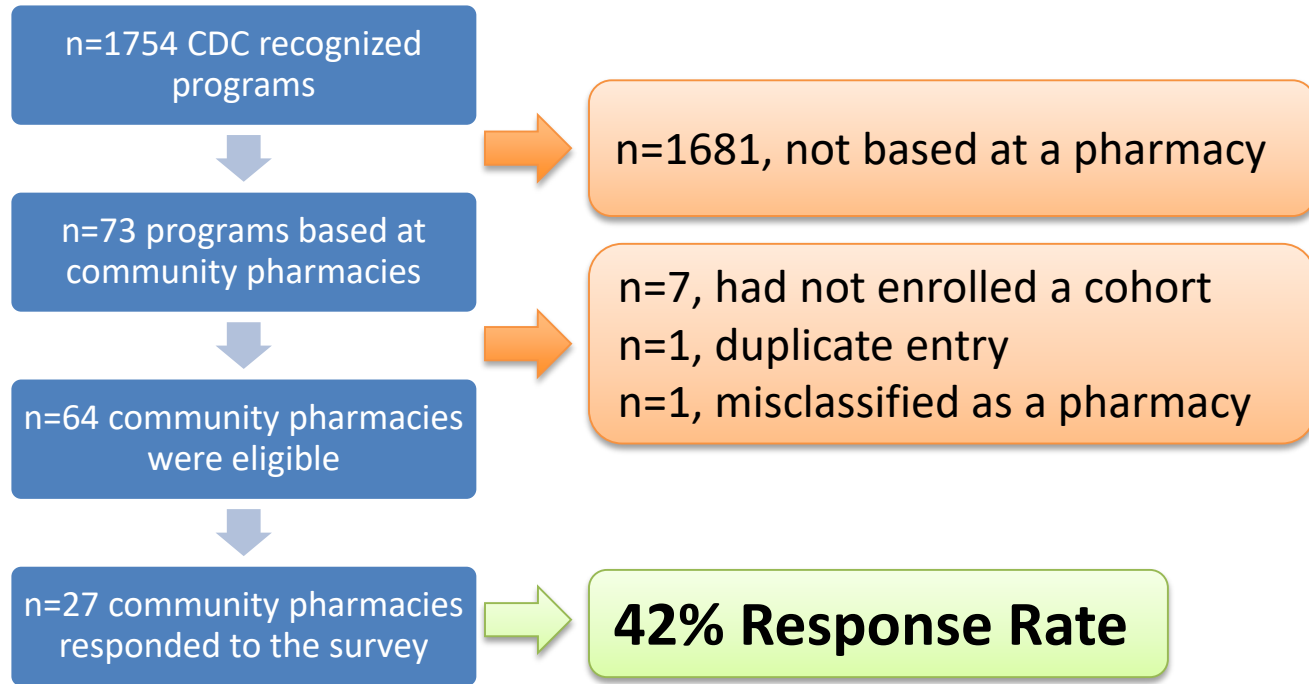
Study Design

- Cross-Sectional Survey
 - A 23-question survey was created to obtain information on program inception, delivery, recruitment/enrollment, evaluation, reimbursement, and impact of COVID-19 on program delivery
 - Survey was pre-tested by expert evaluation from 2 lifestyle coaches with significant experience providing the NDPP

Methods

- Obtained a list of all CDC-recognized community pharmacies offering NDPP from the CDC Registry of Recognized Programs (9/19/20)
- Each pharmacy was contacted via telephone using the phone number provided in the registry
- A standardized script was used to invite a representative involved with their NDPP to complete the survey over the phone or online via Google Forms
- A follow up email was sent (or phone call) approximately 2 weeks later to pharmacies who had not responded

Flow Diagram of Eligible Pharmacies



Characteristics of Responding Pharmacies

Pharmacy Characteristics	Pharmacies (n=27)
Geographic Region, n (%)	
Southeast	11 (41)
Midwest	6 (22)
Southwest	4 (15)
Northeast	3 (11)
West	3 (11)
Pharmacy Type, n (%)	
Independent	21 (78)
Regional chain	3 (11)
National chain	1 (4)
Other	2 (7)
CDC Recognition Status, n (%)	
Pending	20 (74)
Full	6 (22)
Preliminary	1 (4)
CDC, Centers for Disease Control and Prevention; n, number	

Pending: application submitted but under review

Preliminary: application approved and retains at least 5 program completers

Full: must provide data demonstrating certain outcomes have been met

Program Characteristics

Program Characteristics	Pharmacies (n=27)
No. of years offering NDPP, mean (SD)	2.4 (2.1)
Location(s) of classes, n (%)	
Pharmacy (in person)	13 (48)
Hybrid (virtual/in person)	7 (26)
Community health center (in person)	6 (22)
Virtual only	4 (15)
Other	5 (19)
Individuals involved in delivery, n (%)	
Pharmacists	23 (85)
Pharmacy technicians	7 (26)
Pharmacy students	5 (19)
Pharmacy residents	4 (15)
Nurse	4 (15)
Dietitian	2 (7)
Other	6 (22)
No. of Certified Lifestyle Coaches, mean (SD)	1.9 (0.9)
Partners and collaborators, n (%)	
None	13 (48)
Medical office	10 (37)
Community health center	2 (7)
Grocery store	1 (4)
Health system	1 (4)
Other	7 (26)
Advertisement method(s), n (%)	
Word of mouth	22 (82)
Flyers	19 (70)
Electronic media	16 (59)
Other	9 (33)

Reimbursement and Program Evaluation

Characteristics	Pharmacies (n=27)
Reimbursement, n (%) None Medicare Commercial	20 (74) 5 (19) 2 (7)
Patient cost to participate, n (%) None \$1 to \$50 \$51 to \$100 >\$100	22 (82) 2 (7) 1 (4) 2 (7)
Outcomes measured, n (%) Change in body weight Change in hemoglobin A1c Change in physical activity Other	26 (96) 9 (33) 4 (15) 1 (4)
Proportion of participants achieving ≥5% weight loss, n (%) 0% to 25% 26% to 50% 51% to 75% 76% to 100% Unsure	11 (40) 3 (11) 5 (19) 4 (15) 4 (15)

Impact of COVID-19 and Current Program Status

Impact of COVID-19 and Current Program Status	Pharmacies (n=27)
COVID-19 has significantly impacted my Diabetes Prevention Program, n (%)	
Strongly agree	17 (63)
Somewhat agree	7 (25)
Neither agree or disagree	1 (4)
Somewhat disagree	1 (4)
Strongly disagree	0 (0)
I don't know	1 (4)
Currently offering the NDPP, n (%)	
Yes	18 (67)
No	9 (33)
Number of current cohorts, median (range)	1 (0 to 4)
Number of current participants, median (range)	3 (0 to 22)

Question: Based on the survey results presented, what is a potential area for improvement for community pharmacies providing the NDPP?

- A. Decrease involvement of other healthcare professionals.
- B. Increase the costs to participants to join their program.
- C. Decrease the number of partners and collaborators.
- D. Increase opportunities for reimbursement to ensure sustainability.

CDC Selects APhA Foundation to Implement Diabetes Prevention Program in Pharmacies

NOVEMBER 30, 2017

The CDC has selected the [APhA Foundation](#), along with the [Kroger Co.](#) and Solera Health, to implement their Project IMPACT: Diabetes Prevention program. Project IMPACT delivers the CDC-recognized National Diabetes Prevention Program (National DPP) through “face-to-face, telehealth, and digital technology solutions” to patients in underserved communities across the country using community pharmacies.

“We are excited to have the opportunity to collaborate with the Centers for Disease Control and Prevention to create infrastructure within highly accessible community pharmacies to deliver evidence-based diabetes prevention lifestyle change programs to the people who need it the most”, said Benjamin Bluml, RPh Senior Vice President, Research and Innovation of the APhA Foundation said in a press release. “Working with our partners, The Kroger Co. and Solera Health, we will deliver an innovative model of diabetes prevention care, tailored to meet the needs of the participants, that we believe will help people lead healthier lives.”



Conclusions

- A modest number of community pharmacies are recognized NDPP providers by the CDC.
 - The majority are located in the southeastern and midwestern US and offered by independent pharmacies.
- Sustainability remains a critical area for improvement.
- COVID-19 significantly impact program delivery.
- There remains limited evidence demonstrating that community pharmacies can effectively provide NDPP.

Acknowledgements

- Rowan Spence, P4 student
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- Evan Sisson, Co-investigator



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