

# Cultivating the DNP Diabetes Expert to Enhance Transformative Collaboration

Laura Hieronymus DNP, MEd, RN, MLDE, BC-ADM, CDE, FAADE

Kimberley Krapek DNP, CNS, RN, CDE, FCN

Terry Ridge, DNP, ANP-BC, BC-ADM, CPI



# Laura Hieronymus



- Associate Director, Barnstable Brown Diabetes Center, University of Kentucky
- Co-Primary Investigator, University of Kentucky College of Nursing
- Fellow of the American Association of Diabetes Educators (AADE)
- Faculty – AADE Core Concepts Course Online
- KY Drug Management Review Advisory Committee
- Associate Editor, Diabetes Spectrum (American Diabetes Association)
- Areas of Interest: Population health, diabetes prevention, diabetes self-management, quality improvement, academics, research.

# Kimberley Krapek



- Clinical Nurse Specialist, Certified Diabetes Educator and Faith Community Nurse
- Scientific Affairs Manager for Abbott Diabetes Care
- Adjunct Faculty Teacher's College, Columbia University Department of Health & Behavior Studies (Master's of Science Diabetes Education and Management Program)
- Jefferson County Board (CO) of Health Member
- Areas of Interest: Geriatrics, technology, telehealth, policy, population health, adult education, research

# Terry Ridge



- Director of Clinical Research and Diabetes Care, American Health Network, LLC.
- Adjunct Clinical Faculty Indiana University School of Nursing and University of Indianapolis School of Nursing
- Editorial Board, Clinical Diabetes (American Diabetes Association)
- Areas of interest: pharmacological management of diabetes; group medical appointments, clinical trials, diabetes prevention, population health

# Disclosures

## **Conflict of Interest (COI) and Financial Relationship Disclosures:**

**Presenter:** Laura Hieronymus DNP, MEd, RN, MLDE, BC-ADM, CDE, FAADE  
No COI/Disclosures to report

**Presenter:** Kimberley Krapek, DNP, CNS, RN, CDE  
Employee Abbott Diabetes Care; Stockholder Abbott Laboratory, AbbVie,  
Eli Lilly & Co.

**Presenter:** Terry Ridge, DNP, ANP-BC, BC-ADM, CPI  
Research support from Novo Nordisk, Eli Lilly & Co, Merck, Sanofi,  
Boehringer-Ingelheim, Pfizer, and Eisai; Speaker for Novo Nordisk, Janssen

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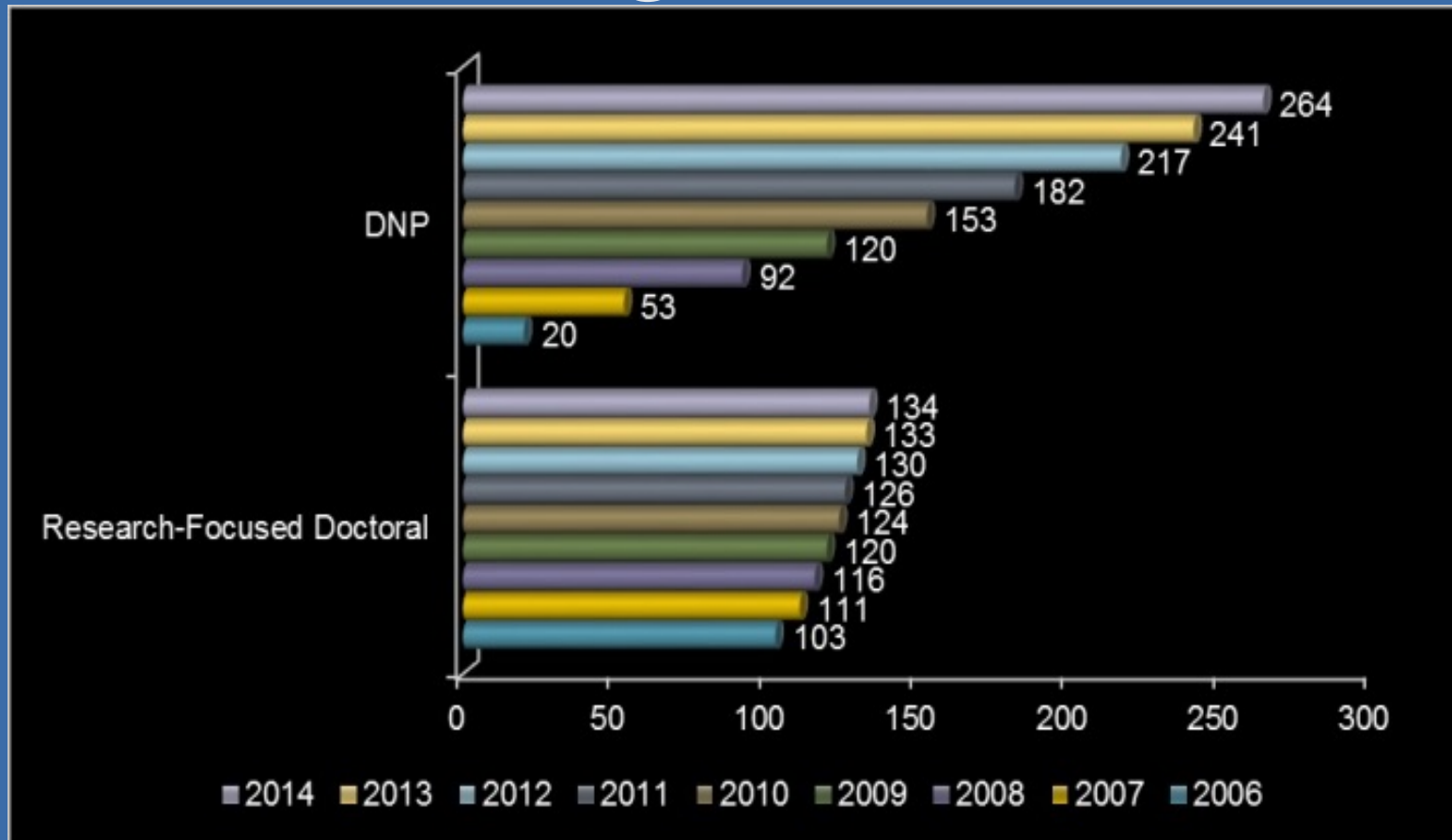
## **Off-Label Use:**

Participants will be notified by speakers to any product used for a purpose other  
than for which it was approved by the Food and Drug Administration.

# Objectives

1. Describe at least one DNP Essential that is implemented into daily activities of the DNP prepared diabetes clinician.
2. Explore how DNP preparation can result in the maturation and expansion of collaborative activities in diabetes education, clinical practice, policymaking and research.
3. Identify three innovative ways to expand collaboration within the arena of diabetes care.

# Practice- VS Research-Focused Doctoral Programs: 2006-2014



American Association of Colleges of Nursing (2015). *DNP Fact Sheet*. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/dnp>

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# DNP Essentials

- 1. Scientific underpinnings for practice**
2. Organizational & systems leadership for quality improvement & system thinking
3. Clinical scholarship & analytical methods for evidence-based practice
4. Technology & information for the improvement & transformation of patient-centered health care
5. Health care policy for advocacy in health care
6. Interprofessional collaboration for improving patient & population health outcomes
7. Clinical prevention & population health for improving the nation's health
- 8. Advanced nursing practice for improving the delivery of patient care**

AACN (2006). The Essentials of Doctoral Education for Advanced Nursing Practice. Washington, DC.



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# Guiding Principles for Diabetes Care

- 1) Identify undiagnosed diabetes and prediabetes
- 2) Manage prediabetes, prevent type 2 diabetes
- 3) Provide self-management education & support
- 4) Provide individualized nutrition therapy
- 5) Encourage regular physical activity
- 6) Control blood glucose to prevent or delay diabetes
- 7) Reduce cardiovascular risk
- 8) Detect and monitor microvascular complications
- 9) Consider needs of special populations
- 10) Provide patient centered diabetes care

National Institute of Diabetes and Digestive and Kidney Diseases (2014). *Guiding Principles for the Care of People With or at Risk for Diabetes*. Retrieved from

<https://www.niddk.nih.gov/health-information/health-communication-programs/ndep/health-care-professionals/guiding-principles/Pages/index.aspx>

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# Organizational/Systems Leadership

## Leadership

- Organizational
  - Role within your employer
  - Interdisciplinary professional practice
  - Academic collaboration
- Systems
  - Microsystems
  - Mesosystems
  - Macrosystems



Haas, L., Maryniuk, M., Beck, J., Cox, C. E., Duker, P., Edwards, L.,... (2012). American diabetes association: National standards for diabetes self-management education and support. *Diabetes Care*, 36, S144-S153. Retrieved from [http://care.diabetesjournals.org/content/37/Supplement\\_1/S144.full.pdf+html](http://care.diabetesjournals.org/content/37/Supplement_1/S144.full.pdf+html)

Schein, E. H. (2010). *Organizational culture and leadership* (4rd ed.). San Francisco, CA: Jossey-Bass.

Yukl, G. (2010). *Leadership in organizations* (7<sup>th</sup> ed.). Upper Saddle River, NJ: Prentice Hall.

# HealthCare System: Two Areas of Opportunity

## Inpatient

The Joint Commission

- **Disease-specific** certifications (inpatient diabetes)
- **Process** (Clinical practice guidelines)
- **Structure** (Disease-specific care standards)
- **Outcome** (Performance Management)

## Outpatient

National Standards for diabetes self-management education and support

- American Diabetes Association **Education Program Recognition**
- American Association of Diabetes Educators **Diabetes Education Accredited Program**

Isby, C., Gomez, T., & Mooney, C. "The Joint Commission Advanced DSC Certification for Inpatient Diabetes Care Presentation". The Joint Commission Certification Disease-Specific Care. 13 November 2013.

Haas, L., Maryniuk, M., Beck, J., Cox, C. E., Duker, P., Edwards, L.,...Youssef, G. (2012). American Diabetes Association: National standards for diabetes self-management education and support. *Diabetes Care*, 36, S144-S153. Retrieved from

[http://care.diabetesjournals.org/content/37/Supplement\\_1/S144.full.pdf+html](http://care.diabetesjournals.org/content/37/Supplement_1/S144.full.pdf+html)

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# Definition of Quality Healthcare

“Degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”



Stevens, K. R. (2014). *The impact of evidence-based practice in nursing and the next big ideas*. *The Online Journal of Issues in Nursing*, 18(2). Retrieved from

<http://nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-18-2013/No2-May-2013/Impact-of-Evidence-Based-Practice.html>

# Quality Improvement in Clinical Practice



Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. (2009).

*The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd edition). San Francisco: Jossey-Bass Publishers.

Institute for Health Care Improvement (2016). *How to improve*. Retrieved from <http://www.ihc.org/resources/Pages/HowtoImprove/default.aspx>

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# Clinical Scholarship/ Evidence-Based Practice

How to publish your journal paper:

- Have a focus/vision
- Write clearly
- Get a pre-review
- Select the right journal
- Cover letter
- Evaluate the response
- Carefully read reviews
- Revise in a timely manner
- Be diplomatic



# Clinical Scholarship/ Evidence-Based Practice Tips from Experience

- Research your topic
- Partner with an experienced author
- Ask peers to critique your work
- Volunteer your time to review work of others





# DNP Essentials

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AACN (2006). The Essentials of Doctoral Education for Advanced Nursing Practice. Washington, DC.

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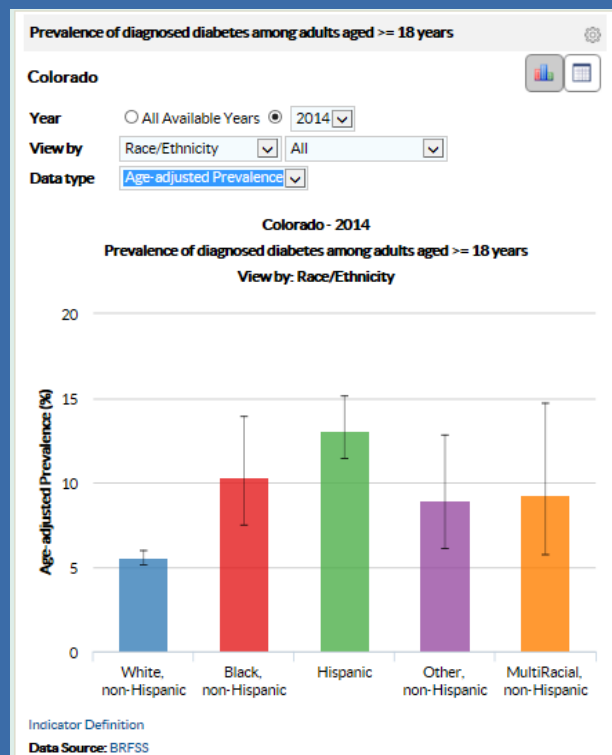
# Technology in Diabetes Care

- Technology integration into care results from the:
  - changing face of chronic disease
  - need to improve access to care
  - expansion of “self ware” use in the pursuit for improved glycemic outcomes, safety and quality of life

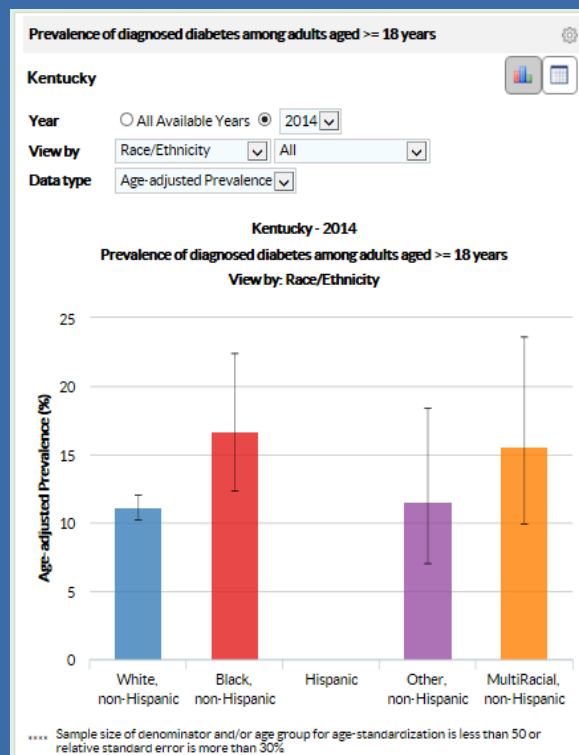
# The Changing Environment in Diabetes Disease Care

- Shifting paradigm of patient centered care: empowerment and behavioral change
- Diverse make up of those needing care
  - Ethnicity
  - Residence
  - Age
  - Learning style
- Requires new creative ways to deliver care
  - Telehealth, e-health, mobile health

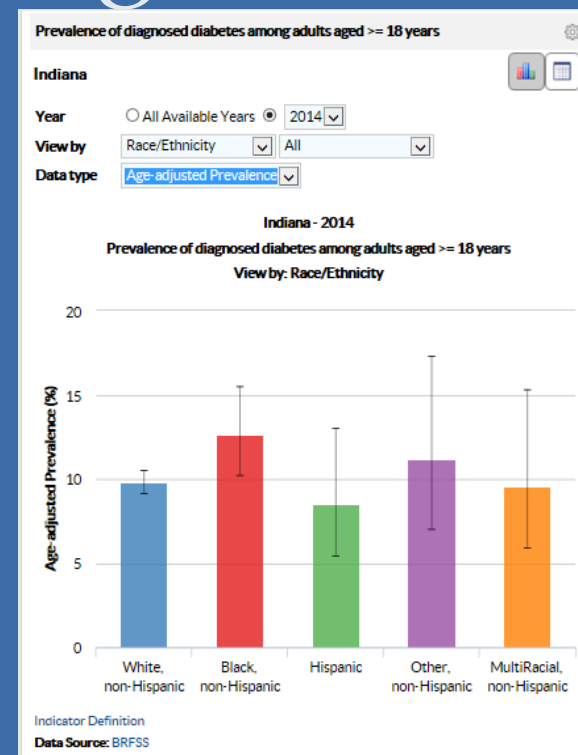
# Diabetes Diverse Challenge...



694,161 people living in rural Colorado in 2016



1,835,685 people living in rural Kentucky in 2016



1,468,525 people living in rural Indiana in 2016

14.36% of US population live in rural areas

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. Chronic Disease Indicators (CDI) Data [online]. 2016 [accessed Jul 02, 2016]. URL: <http://nccd.cdc.gov/cdi>.

<https://www.ruralhealthinfo.org/states/colorado>

# Challenges in Telehealth

- Inconsistent evidence with value of telehealth
  - Stop asking the question “Does telehealth improve outcomes?”
  - Start asking the question “How can telehealth improve outcomes?”
  - Outcome measures “Should we expand diabetes outcomes beyond hemoglobin A1c?”

Baron, J.S., Shashivadan, H., & Newman, S.T. (2016). Journal of Telemedicine and Telecare. 2016 Feb 15. doi: 10.1177/1357633X16631628

Greenwood, D.A., Blozis, S.A., Young, H.M., Nesbitt, T.S., & Quinn, C. (2015). Journal of Medical Internet Research, 17(7): e178. . doi:10.2196/jmir.4112

Lamothel L., Fortin, J.P., Labbé, F., Gagnon, M.P., & Messikh, D. (2006). Telemedicine and e-Health, 12(3):363–9.

# Efforts to Promote Telehealth

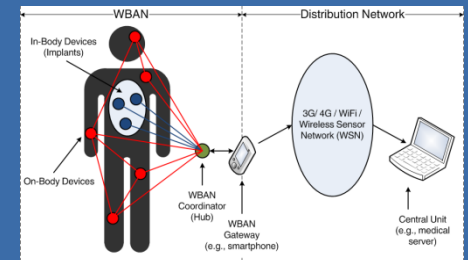
- **Diabetes Tele-Health Program for Hispanic Veterans: Program Evaluation (Eisenbise, 2015)**
- **Using Technology to Improve Diabetes Self-Management within a Federally Qualified Community Health Center (Morgan, 2015)**
- **DNP Capstone: Effects of bi-weekly APRN phone calls on improvement of A1c and self-efficacy in adults with T2 dm. (Lemoine, 2015)**



Eisenbise (2015). [gradworks.umi.com/37/02/3702715.html](http://gradworks.umi.com/37/02/3702715.html)  
Lemoine, L.M. (2015) <http://search.proquest.com/docview/1681369395>  
Morgan, L. D. (2015). [aquila.usm.edu/cgi/viewcontent.cgi?article=1002&context=dnpcapstone](http://aquila.usm.edu/cgi/viewcontent.cgi?article=1002&context=dnpcapstone)

# Wearable Technology

- Wearable Technology a \$1.6 Trillion Business
- Remote patient monitoring
- Diabetes related wearable technologies
  - Artificial pancreas
  - Insulin pump
  - Glucose sensing technology



James, S., Perry, L., Gallagher, R., & Lowe, J. (2016). J Diabetes Sci Technol doi: 10.1177/1932296816646798

Kartsakli, et al. (2016). <http://lifesciences.ieee.org/publications/newsletter/december-2013/464-enhancing-quality-of-life-with-wireless-sensor-technology>

Morgan Stanley (2015). Retrieved from <http://www.benzinga.com/analyst-ratings/analyst-color/14/11/5025844/morgan-stanley-wearable-technology-a-potential-1-6-trill#ixzz4DHEItklI>

Sultan, N. (2015). Journal of Information Management, 35(5), 521–526. doi:10.1016/j.ijinfomgt.2015.04.010

# Public Impatience

- “Makers Movement”: DIY inventions, NightScout, global access to non-approved products by the FDA

How can the DNP assist in ensuring patient safety, while respecting the need for speedier options?



<http://www.nightscout.info/>

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# Health Care Advocacy & Policy

- Expanded access to improve care quality and outcomes
  - 23% increase in Medicaid patients diagnosed with diabetes in states that adopted ACA Medicaid expansion, vs a 0.4% increase in states that did not (Kaufman, 2015).-
- Finance Reform
  - Payment reform tied to quality measurement
- Continued investment in clinical and translational research on new diabetes care models

American Diabetes Association (2016). Diabetes Care 2016;39(Suppl. 1):S105–S106

Newhouse, R.P. et al. (2012). Policy, Politics & ---Nursing Practice, 13(2), 81-89. doi:10.1177/1527154412456299

# DNP Advocacy: Diabetes Health Care Policy

- Catalyst for Better Diabetes Care: part of the ACA
- Strong Professional Organization involvement
  - Contacting legislators
  - Expert testimony

**AADE** Find a Diabetes Educator MY AADE NETWORK Online Store Annual Meeting About AADE JOIN AADE

Practice Patient Resources Education & Career News & Publications Research Advocacy Profile

Welcome to the AADE Advocacy Action Center

**Advocacy Action Center News**

The AADE Advocacy Action Center provides federal and state legislative information related to diabetes education, the National Diabetes Prevention Program, medical nutrition therapy, and diabetes self-management training/education. Get involved by staying informed and taking action!

**2016 Public Policy Forum**

AADE held its annual Public Policy Forum on May 13-14 in Rosemont, IL. In the past, this event has been held in Washington, DC with a special focus on the promotion and advancement of the federal legislative agenda. However, this year, 70 attendees representing 28 states convened as a network of key stakeholders who are experts and advocate on behalf of their profession, persons with diabetes, and relevant diabetes-related legislative and regulatory issues.

Watch video clips from the Forum on the Advocacy website. Visit the [AADE Advocacy Forum](#) to access and download slide decks, presentation resources, and legislative outreach materials.

**Current Federal Co-Sponsors**

Senators	Representatives
Shaheen, Jeanne [D-NH]*	Whitfield, Ed [R-KY-1]*
Donnelly, Joe [D-IN]*	DeGette, Diana [D-CO-1]*
Franken, Alan [D-MN]*	Reed, Tom [R-NY-23]*
Klobuchar, Amy [D-MN]*	Harper, Gregg [R-MS-3]
Kirk, Mark [R-IL]	Lipinski, Daniel [D-IL-3]
Tester, Jon [D-MT]	Olson, Pete [R-TX-22]
Cotton, Shelley [R-WY]	Johnson, Bill [R-OK-6]

**JOIN THE CONVERSATION!**

Visit the [AADE Advocacy Forum](#) on MY AADE NETWORK to connect with other diabetes educators to discuss legislative and regulatory issues, ask questions, and find support for grassroots activities.

**Current Action Alerts**

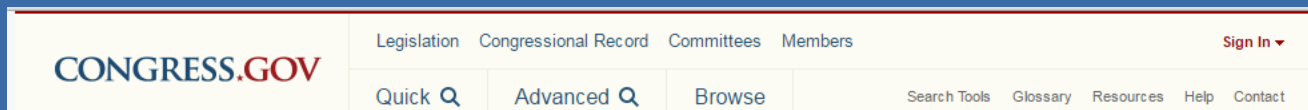
- [Dear Legislator: Medicare CBP Needs To Be Fixed](#)
- [Dear Legislator: Support the Access to Quality Diabetes Education Act](#)
- [Log a Call to Your Member of Congress](#)
- [Dear Chairman Upton: Support H.R. 1726](#)

<https://www.govtrack.us/congress/bills/111/hr1402>

[http://advocate.diabeteseducator.org/site/PageServer?pagename=action\\_center](http://advocate.diabeteseducator.org/site/PageServer?pagename=action_center)

# Choose something you are passionate about

- Multiple Bills before Congress and in State Legislation
  - S-1345: Improves Diabetes Education Access
  - HR- 2651: Eliminating Disparities in Diabetes Prevention, Access and Care Act of 2015
  - H.R. 771: Protecting Access to Diabetes Supply Act
  - H.R. 1427: Medicare CGM Access Act of 2015



<https://www.congress.gov/bill/114th-congress/house-bill/>

# Stay on Top!

The screenshot shows the CONGRESS.GOV website interface. At the top, there's a navigation bar with links for Legislation, Congressional Record, Committees, and Members. Below this is a search bar with 'Quick', 'Advanced', and 'Browse' options. The main content area displays 'Current Legislation' with a dropdown menu and a search input field. The specific bill being viewed is H.R. 1427 - Medicare CGM Access Act of 2015, from the 114th Congress (2015-2016). A red circle highlights the 'Get alerts' link. The bill's overview is shown in a modal window, including the sponsor (Rep. Reed, Tom [R-NY-23]), committees (House - Energy and Commerce; Ways and Means), and the latest action (03/20/2015 Referred to the Subcommittee on Health). A tracker shows the bill's progress: Introduced, Passed House, Passed Senate, To President, and Became Law. On the right, there are links for 'More on This Bill' (Constitutional Authority Statement, CBO Cost Estimates [0]) and 'Subject — Policy Area: Health' with a 'View subjects' link. At the bottom, there are tabs for Summary (1), Text (1), Actions (6), Titles (2), Amendments (0), Cosponsors (250), Committees (2), and Related Bills (1).

<https://www.congress.gov/bill/114th-congress/house-bill/1427>

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AACN (2006). The Essentials of Doctoral Education for Advanced Nursing Practice. Washington, DC.

# Interprofessional Collaboration

Intraprofessional collaboration because:

- Growing epidemic
- Shrinking pool of providers in family medicine/  
endocrinology
- Multifaceted/complexity of disease
- Different perspectives/experiences

What are our opportunities in diabetes  
treatment, research, and care

Hellquist, K, Bradley, R, Grambart, S, Kapustin, J, Loch, J. (2012). Collaborative Practice Benefits Patients: An Examination of Interprofessional Approaches to Diabetes Care. *Health and Interprofessional Practice* 1(2):eP1017.  
Accessed: <http://dx.doi.org/10.7772/2159-1253.1017>

# Population Health in Diabetes

## Measuring is where successful population health management starts

- Create and maintain a robust diabetes registry
- Use diagnosis codes supplemented by clinical information to continue to define and refine your diabetes population
- Identify patients who aren't up-to-date on tests, including A1c, fasting lipids, blood pressure, microalbumin, and more
- Establish benchmarks and compare those to state and national benchmarks
- Identify diabetic patients with the highest risk of high cholesterol, hypertension, or heart disease
- Monitor and report on key indicators for diabetes complications
- Rank patients by number of care deficits to prioritize outreach efforts
- Measure the success of your diabetes management interventions
- Discover variations in diabetes care across your organization

Barton, M., **Understanding Population Health Management: A Diabetes Example**. Health Catalyst. Accessed: <https://www.healthcatalyst.com/managing-diabetes-population-health-management>

# Population Health in Diabetes

157 PCP are NCQA Certified

Age	Last eye exam	Last foot exam	Last microalbumin	Date of A1c	A1c	Date of LDL	LDL	Date of B/P	B/P	Next Appt
61	11/4/2013	12/6/2013	11/22/2013	9/10/2014	9.8	9/10/2014	61	11/7/2014	136/74	11/6/2015
74	7/23/2013	2/29/2016	2/19/2016	2/19/2016	6.8	2/19/2016	99	2/29/2016	120/60	7/1/2016
63	12/24/2015	1/25/2016	12/10/2015	12/10/2015	8.3	5/7/2015	153	3/18/2016	139/80	5/2/2016
75	7/23/2015	2/25/2016	2/12/2016	2/12/2016	6.7	2/12/2016	51	2/25/2016	139/80	10/27/2016
68	1/29/2016	3/8/2016	2/22/2016	2/22/2016	6.3	2/22/2016	97	3/8/2016	117/68	9/15/2016
68	1/6/2016	7/14/2015	2/23/2016	2/23/2016	6.6	2/23/2016	85	4/4/2016	120/68	4/4/2016



# Clinical Prevention and Population Health

## A. Types of prevention

- Primary, secondary, tertiary

## B. Target audience for direct interventions

- Individuals, high risk groups, populations

## C. Recognition of the effect of social determinants of health on the receipt of preventive services

- Income, education, access to transportation, culture

## D. Role of the clinician and interprofessional team in improving the health of populations

- Education, incentives for behavior change, the role for genomics in clinical practice, advocacy (laws/policies; engineering/environmental solutions)

## E. Practice-based systems to aid with the provision of preventive services

- Electronic record reminders for clinicians and patients; outreach to patients using new technologies; home visits by community health/outreach workers; use and limitations of social media

Clinical Prevention and Population Health Framework Curriculum; accessed: <http://www.teachpopulationhealth.org/>

# Clinical Prevention and Population Health

Prediabetes is under-recognized

Primary care

No NCQA standard

Healthy People 2020

Reduce the disease and economic burden of diabetes mellitus (DM) and improve the quality of life for all persons who have, or are at risk for, DM

Prediabetes

86 million in US with 9 out of 10 unaware

15 to 30% will become T2DM in 5yrs



Health People 2020; Healthy People.gov. accessed: <https://www.healthypeople.gov/2020/topics-objectives/topic/diabetes>

2014 Statistics about diabetes. American Diabetes Association. Accessed: <http://www.diabetes.org/diabetes-basics/statistics/>

# Clinical Prevention and Population Health

- Information readily available in EMR/Registries for pre-diabetes
- National Diabetes Prevention Program  
Planned program expansion
  - Saved \$2,650 over 15 months and had reduced hospital admissions
  - First prevention program to reimbursed by Medicare

[https://nccd.cdc.gov/DDT\\_DPRP/Registry.aspx](https://nccd.cdc.gov/DDT_DPRP/Registry.aspx)  
<https://www.cdc.gov/diabetes/prevention/index.html>

# Collaborative Opportunities: DNP Diabetes Specialty Providers

- ✓ With professional organizations?
- ✓ Through advocacy and policy?
- ✓ Within academia?



<http://quotesgram.com/img/real-collaboration-quotes/B8PV7pmRAg/>

# In Summary...

“Do not seek to follow in the footsteps of the old masters. Seek instead what the old masters sought.”

-Basho (1644-1694)



WISDOM

# Thank you!

[laura.hieronimus@uky.edu](mailto:laura.hieronimus@uky.edu) [kkrapek@regis.edu](mailto:kkrapek@regis.edu) [Terry\\_Ridge@ahni.com](mailto:Terry_Ridge@ahni.com)

