

Diabetes in School Health (DiSH):

Ask the Expert session to address challenging diabetes scenarios at school



Allison Pollock MD. 4/17/24

Objectives

Explain the purpose of Project ECHO and Community of Practice educational models

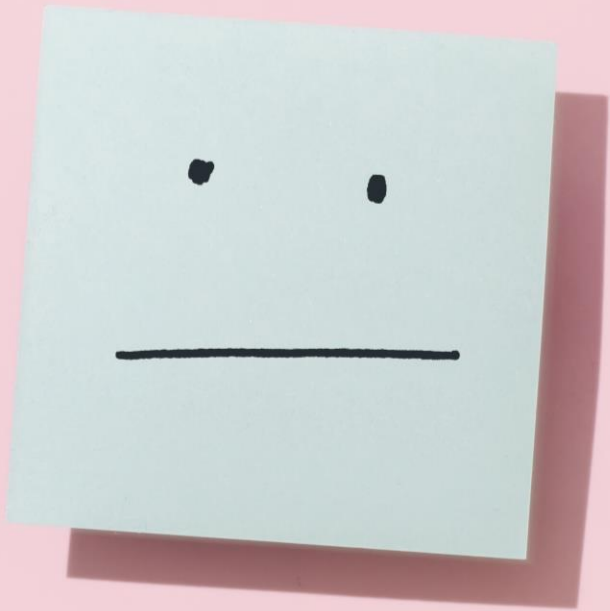
Discuss the Diabetes in School Health (DiSH) program, a collaborative educational telementoring program to improve diabetes care in schools

Discuss challenges school nurses face in the care of students with diabetes

Outline

1. Diabetes disparities in youth
2. Schools and their potential impact on health
3. Development of Diabetes in School Health (DiSH)
4. Expansion from one UW to another





Diabetes disparities in youth

2020 CHOP

PEDIATRICDIABETES



CLINICAL CARE AND TECHNOLOGY |  Full Access |

Racial disparities in treatment and outcomes of children with type 1 diabetes

Terri H Lipman, Jennifer A Smith, Oona Patil, Steven M Willi, Colin P Hawkes 

<https://onlinelibrary.wiley.com/doi/full/10.1111/pedi.13139>

First published: 08 October 2020 | <https://doi.org/10.1111/pedi.13139>

Methods: We reviewed electronic health records of children (<18 years) attending a large, pediatric tertiary care diabetes center in the United States between October 1, 2018, and December 31, 2019. Health care utilization (appointment attendance, ED visits, hospitalizations), technology use (insulin pumps, continuous glucose monitors [CGM]) and hemoglobin A1c (HbA1c) were examined for each race/ethnicity and stratified by insurance type (private/government) as a proxy for socioeconomic status (SES).

TABLE 1 Demographics, glycemic control, health care utilization, and technology use among non-Hispanic black (NHB), non-Hispanic white (NHW) and Hispanic children with type 1 diabetes who attended our center during the study period

	NHB (n = 198)	NHW (n = 1026)	Hispanic (n = 107)	P value		
				NHW vs NHB	NHB vs Hisp	NHW vs Hisp
Age	13.9 (11.2, 16.3)	14.3 (11.5, 16.4)	14.0 (11.6, 15.6)	.9	.9	.7
Female sex	106 (54%)	477 (47%)	49 (46%)	.08	.2	.9
Duration of T1D, years	5.6 (3.5, 8.0)	5.8 (3.7, 9.2)	5.9 (4.4, 9.0)	.5	.5	.9
Government insurance	120 (60.3%)	196 (18.8%)	58 (53.7%)	<.001	.3	<.001
Most recent HbA1c (%)	9.4 (8.2, 11.0)	7.8 (7.1, 8.7)	8.6 (7.7, 9.9)	<.001	<.001	<.001
HbA1c ≥ 7.5%	176 (88.4%)	645 (62%)	88 (81.4%)	<.001	.1	<.001
Number of attended MD/NP visits ^a	4.3 ± 1.5	4.2 ± 1.2	4 ± 1.6	.7	.1	.3
Number of missed MD/NP appointments ^a	1.3 ± 1.2	0.6 ± 0.7	1.2 ± 1.4	<.001	.8	<.001
Attended CDE visit ^a	152 (77%)	709 (69%)	89 (83%)	.03	.2	.002
Attended nutrition visit ^a	131 (66%)	572 (56%)	69 (65%)	.008	.8	.1
≥ 1 ED visit ^a	29 (15%)	46 (5%)	10 (9%)	<.001	.2	.035
≥ 1 Hospital admission ^a	36 (18%)	29 (3%)	11 (10%)	<.001	.1	.001
≥ 1 Missed appointment ^a	155 (78%)	535 (52%)	75 (70%)	<.001	.1	<.001
CGM used	78 (39%)	702 (68%)	57 (53%)	<.001	.022	.002
Insulin pump	68 (34%)	738 (72%)	50 (47%)	<.001	.037	<.001



OUR STEP

SCHOOL: opportunity to improve health

- **Striking health disparities in youth**
- Early health and societal inequities lead to adult disease risk
- School setting is an opportunity for increased social support for families at highest need / risk

School Nurses are critical!

- **Key** caregivers for kids with diabetes in school > at home and are the eyes / ears for challenges students with diabetes face
- Have the opportunity to reinforce diabetes self-management education
- May fill in gaps where parents have barriers and limitations: opportunity to address some factors leading to health inequities
- **YET, it can be tricky to easy access to updated education (e.g. changing guidelines, technology) and have limited communication/collaboration with healthcare team**

School Challenges in Diabetes Care

School-Based Management of Pediatric Type 1 Diabetes: Recommendations, Advances, and Gaps in Knowledge

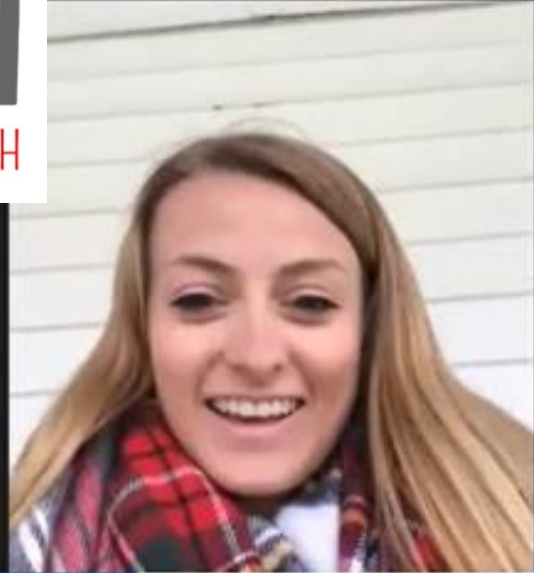
Laura B. Smith¹ · Amanda Terry¹ · Sureka Bollepalli¹ · Kaitlyn Rechenberg²

Published online: 24 May 2019

- School nurse scarcity / staffing
- Delegation - -legal and educational limitations
- Limited mental health supports for students
- Intense individual student demands
- **Lack of updated education (e.g. changing technology)**
- **Limited communication/collaboration with healthcare team**



DiSH
DIABETES IN SCHOOL HEALTH



Inspiration from fellowship and early faculty years:

Diabetes clinic teams & school health teams BOTH want to collaborate to help kids with diabetes of all backgrounds, races, circumstances thrive!



Meanwhile...
I was asked to do a
DKA talk for a
colleague in
Pediatric Surgery
who ran a Pediatric
Emergencies
telementoring
program for
community PCPs:



What is Project ECHO?

- Telementoring relationships
- Learning Community
 - All teach, all learn
 - Hub (experts) and Spokes (PCPs)
- Connecting specialist care with care providers within the community
- Use of case-based learning
- Opportunity for discussion and growth

Sounds familiar: Community of Practice

A community of practice is a group of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly. This definition reflects the fundamentally social nature of human learning. It is very broad. It applies to a street gang, whose members learn how to survive in a hostile world, as well as a group of engineers who learn how to design better devices or a group of civil servants who seek to improve service to citizens.

In all cases, the key elements are: **The domain:** members are brought together by a learning need they share (whether this shared learning need is explicit or not and whether learning is the motivation for their coming together or a by-product of it) **The community:** their collective learning becomes a bond among them over time (experienced in various ways and thus not a source of homogeneity) **The practice:** their interactions produce resources that affect their practice (whether they engage in actual practice together or separately)



For pediatric diabetes:

Flip the concept – instead of PCPs as spokes,
why not reach out to School Nurses?!

Partners & Community Engagement



**Louise Wilson, MS,
NCSN, RN, BSN**

Wisconsin

Department of Public Instruction

School Nursing and Health Services Consultant



**Whitney Beaton,
MSN, RN, ACCNS-P, CDCES**

UWHealth American Family Children's Hospital

Pediatric Diabetes

Clinical Nurse Specialist

School nurse needs assessment / interest in DiSH:

Table 1. DiSH Initial Survey Responses (Fall 2019)

Number of Responses	60
School Setting % (n)	
Rural	46.6 (28)
Suburban	35 (21)
Urban	11.6 (7)

Comfort with Managing High and Low Blood Sugars % (n)

Extremely Comfortable 32 (18)

Moderately Comfortable 61 (34)

Neither Comfortable or Uncomfortable 4 (2)

Slightly Comfortable 4 (2)

Knowledge about What to do During Routine Illness % (n)

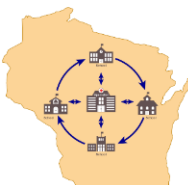
Extremely Knowledgeable 5 (3)

Very Knowledgeable 20 (11)

Moderately Knowledgeable 48 (27)

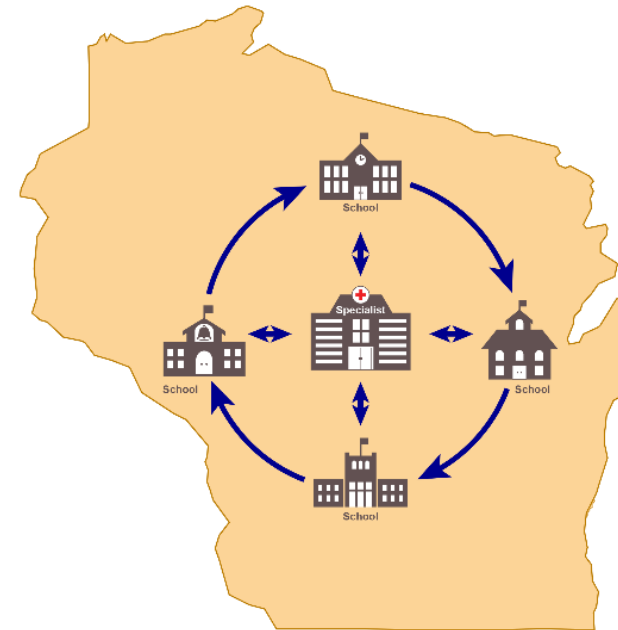
Slightly Knowledgeable 21 (12)

Not Knowledgeable At All 5 (3)



RESULTS

Comments in survey suggested **HIGH** interest in the concept of a monthly educational telementoring session about diabetes care for school nurses



Using study results we

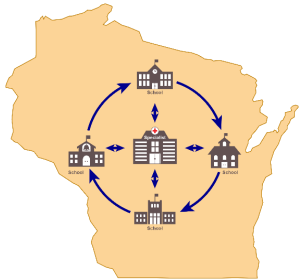


Developed DiSH educational and collaborative program via adaptation of a well-established telementoring educational model, **Project ECHO**.



- Telementoring relationships building a learning community
- Connecting specialist care (hubs) with care providers within the community (spokes) to ALL TEACH, ALL LEARN together model





DIABETES IN SCHOOL HEALTH (DISH)



2019-2020 DiSH-WI Planning Committee



Allison Pollock, MD



**Whitney Beaton,
MSN, RN, ACCNS-P, CDCES**



Santhi Logel, MD



**Louise Wilson, MS,
NCSN, RN, BSN**



**Bobbi Burgess,
Project Coordinator**



**Jolene Eggert Ciha,
MSW**



**Reva Finkelman,
Administrative Support**



**Tori Benson,
Administrative Support**

&



BEN PLUNKETT

First Session January 2020



Diabetes Technology Overview (State of the Art)

Whitney Beaton, MSN, RN, ACCNS-P

January 15, 2020



January 2020 Session #1

“Diabetes Technology Overview”

Whitney Beaton, MSN, RN, ACCNS-P, CDCES

American Family Children’s Hospital

1/15/2020 Session - "Diabetes Technology"

Thank you for joining the first Session of Diabetes in School Health (DiSH) Project Echo!

Highlights:

- 48 “spokes” from various locations in Wisconsin logged in to discuss current diabetes technology.
- Discussion centered around use of continuous glucose monitors in the school setting (ranging from gym class to testing scenarios).



Summer break: a la carte sessions

A session card for August 2020. It features a speech bubble with the text 'the language of diabetes: what you say matters'. The presenter is Whitney Beaton, MSN, RN, ACCNS-P, CDCES. The session is part of the 'DISH A La Carte Session' for August 2020. A 'DISH SUMMER' logo is also present.

August 2020

"The Language of Diabetes: What You Say Matters"

Whitney Beaton, MSN, RN, ACCNS-P, CDCES

[Watch Session Here](#)

A session card for July 2020. It features a syringe and the text 'ALL ABOUT: GLUCAGON'. The presenter is Whitney Beaton, MSN, RN, ACCNS-P, CDCES. The session is part of the 'DISH A La Carte' series for July 2020. A 'DISH SUMMER' logo is also present.

July 2020

"Glucagon"

Whitney Beaton, MSN, RN, ACCNS-P, CDCES

[Watch Session Here](#)

A session card for June 2020. It features the text 'DISH A LA CARTE' and 'SUMMER MINI-SESSIONS'. The session title is 'What is Type 1 Diabetes?'. A 'DISH SUMMER' logo is also present.

June 2020"

"What is Type 1 Diabetes?"

Whitney Beaton, MSN, RN, ACCNS-P, CDCES

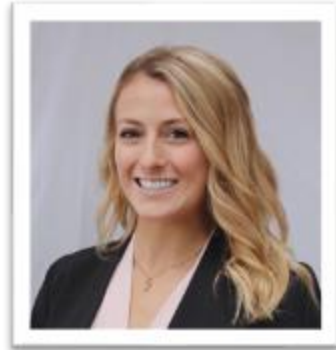
[Watch Session Here](#)



Dish-WA planning committee



Allison Pollock, MD
Director



Bobbi Burgess,
Project Coordinator



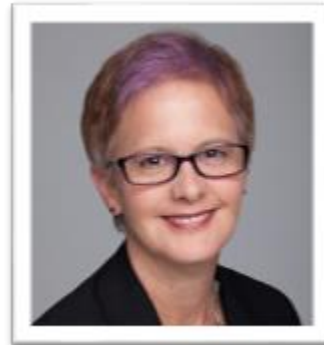
Erin Sundberg, APNP
Pediatric Diabetes NP



Kelsey Eitel, MD
Pediatric Endocrinologist



Lynnette Ondeck, Med,
BSN, RN, NCSN
SNC Administrator



Annie Hetzel, MSN, RN, NCSN
WA OSPI



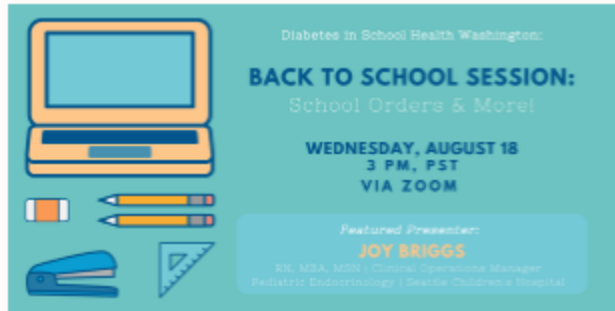
Les Stahlnecker, MS, RN
SNC Administrator



Questions/Comments? Email us: diabetesinschoolhealth@gmail.com



→ WASHINGTON DiSH launch! (>200 attended)



August 2021 #3

"Back to School Session: Diabetes School Orders and More!"

Joy Briggs, RN, MBA, MSN

Clinical Operations Manager, Pediatric Endocrinology

Seattle Children's Hospital

[Watch Session Here](#)

Session attendance ranged from

n=30s->200.



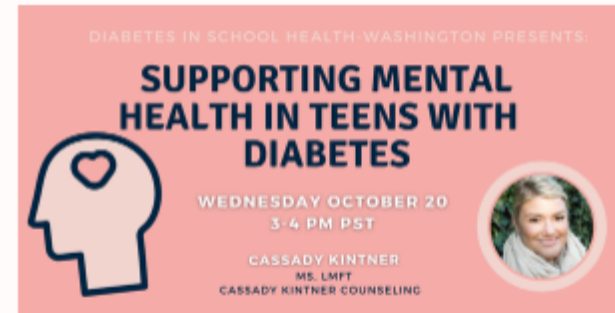
May 2021 #2

"Moving On Up with Diabetes: Helping Students Transition to their Next School Setting"

Leslie Buter, RN, NCSN

School Nurse, Edmonds School District (WA)

[Watch Session Here](#)



October 2021 #5

"Supporting Mental Health in Teens with Diabetes"

Cassady Kintner, MS, LMFT

Cassady Kintner Counseling (Seattle, WA)

[Watch Session Here](#)



April 2021 #1

"New Onset Diabetes: What Happens During Diagnosis and Education"

Erin Sundberg, ARNP

Pediatric Diabetes Nurse Specialist

Seattle Children's Hospital

[Watch Session Here](#)



September 2021 #4

"Illness with Diabetes: Ketones and Beyond"

Kelsey Eitel, MD & Caroline Hudders, RN

Pediatric Endocrinology

Seattle Children's Hospital

[Watch Session Here](#)

DiSH on-wheels

n=2 (n=3 soon)

1st: Skagit valley via WA AAP grant
WI - - 1 already and 1 planned






On-demand in that they asked us if we could do it and we made it happen.

Hands-on session for local public health personnel and school nurses on diabetes devices.

Three+ years of DiSH



	Year Program Began	Average Number of Participants
 Wisconsin	2020	58
 Washington	2021	108
 Montana	2023	22

Paper! <https://pubmed.ncbi.nlm.nih.gov/37332110/>

Source: Whitney Beaton

Three+ years of DiSH - Hot Topics

- **Communication / call backs** – school nurse doesn't always know how to reach clinic for urgent concerns (if parent isn't answering/available)
- **Parent designated adults (PDAs)** – training, identifying, compensating, liability/delegating
- **Following CGM!** Liability, resources (devices, time), family micromanaging risks
- **School orders/care plan** (liability, family micromanaging, more direction, ease for other staff when school nurse absent, personal devices)
- **Ketones** – perhaps school nurses shouldn't have to check but what if they're always high? Shared resource?
- **Field trips, extracurricular activities**
- **The relational areas of diabetes care make such a difference**





Together with dedicated partners in Wisconsin and Washington, we've grown **Diabetes in School Health (DiSH)** into an in-demand telementoring program that has the potential to improve diabetes care in schools, and increase collaboration between clinic and school health teams, and tackle the tragic health disparities in kids.

<https://diabetes-in-school-health.mailchimpsites.com/>

