



Project ECHO: Addressing Social Determinants of Health in School Health

**Center for the Child & Community
Children's Hospital & Medical Center**

Evaluation Summary

July 2021

**Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health
Evaluation Summary**

Center for the Child & Community
Children's Hospital & Medical Center

Prepared for:

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Children's Hospital & Medical Center

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What We Learned – SDOH ECHO

School health and [social determinants of health](#) (SDOH) are inextricably linked. While the negative impacts of SDOHs can have long-lasting implications for student academic success and achievement, school health programs and school health professionals can play a key role in mitigating SDOHs and adverse outcomes. Recognizing the important contributions of school nurses to the health, safety, and well-being of the school and broader community, the Children's Hospital & Medical Center's Center for the Child & Community (the Center) implemented Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health (SDOH ECHO). Project ECHO (**E**xtension for **C**ommunity **H**ealthcare **O**utcomes) is an evidence-based telementoring model that brings together primary care health providers and multidisciplinary subject matter experts as a community of learners. Each ECHO session features a brief faculty-led didactic segment followed by de-identified case presentation and discussion, allowing participants to learn from subject matter experts *and* each other. From January 2021-April 2021, the Center's SDOH ECHO 8-session curriculum addressed topics relevant to many of the SDOHs most relevant to children, adolescents, and families.

To evaluate SDOH ECHO, an external consultant assessed participant experience and program impacts. Evaluation activities throughout the ECHO implementation period included attendance tracking, *post-session* and *post-program* surveys, and post-program interviews. The American Academy of Continuing Medical Education (AACME) Outcomes Model guided the evaluation plan to measure Participation, Satisfaction, Learning, and Performance.

SDOH ECHO attendees were primarily nurses or advance practice nurses (61%). Over the program period, 92 individuals took part; average session attendance=26. Based on post-program survey report, ≥85% *agreed/strongly agreed* that SDOH ECHO improved subject matter understanding, was a valuable use of time, and provided content relevant to the patient/student population. SDOH ECHO enhanced participants' self-reported knowledge and awareness regarding SDOHs. Post-ECHO interviewees described enhancements to student care and school health programming as a result of participation and reported sharing ECHO learnings with colleagues.

Participants valued the Center's attention to the school nurse audience and encouraged future programming to address emerging needs in school health. SDOH ECHO evaluation highlights positive impacts and outcomes for both ECHO participants and the schools and districts in which they serve children, youth and families.

SDOH ECHO Overview

School health and [social determinants of health](#) (SDOH) are inextricably linked. While the negative impacts of SDOHs can have long-lasting implications for student academic success and achievement, school health programs and school health professionals can play a key role in mitigating SDOHs and their adverse outcomes.

As part of a mission and vision to empower communities so *all* children and youth can reach their potential, the Children’s Hospital & Medical Center’s **Center for the Child & Community** (the Center) creates and nurtures partnerships to address pediatric and family health priorities. Recognizing the important role that school nurses play in the lives of their students and the broader community, the Center launched **Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health** (referred to throughout this report as **SDOH ECHO**). Project ECHO® (Extension for **C**ommunity **H**ealthcare **O**utcomes) is an evidence-based telementoring program designed to create communities of learners by bringing together healthcare providers and multidisciplinary subject matter experts. Combining didactic and case-based presentations with clinical management tools, ECHO promotes an “all teach, all learn” philosophy. Virtually connected through freely available videoconferencing technology, health care and other professionals strengthen knowledge and increase self-efficacy on diseases, conditions, and/or health care processes. The ECHO model is used globally to improve professionals’ ability to manage conditions, create sustainable change, and shape better outcomes for pediatric and adult populations.

SDOH ECHO Leadership & Staff

- Debra J Tomek, MD, FAAP
- Kathy Brandt, LCSW, ACSW
- Holly Dingman, MS, RD
- Kim McClintick, MSN, RN
- Jen Martens, MPH
- Chrissy Tonkinson, MPH

Curriculum Topics

- Connecting Poverty & Inequity with Health & Academics
- Understanding Complexities of SDOH on Chronic Absenteeism
- Race & Ethnicity’s Impact in the School Setting
- The Effects of Language & Cultural Barriers in the Classroom
- Housing & Transportation Challenges for Today’s Youth
- Unpacking Food Insecurity for Students and Families
- Utilizing Discernment Around Violence, Child Abuse & Neglect
- Addressing SDOH as a Child Health Advocate

Each ECHO session follows a similar structure – a brief faculty-led didactic segment is followed by de-identified case presentation and discussion, allowing participants to learn from subject matter experts *and* each other.

Center ECHO program staff recruited participants for SDOH ECHO from the Children’s Hospital & Medical Center network, Nebraska school districts participating the Centers for Disease Control and Prevention-funded (CDC) Healthy Schools grant, and other Nebraska state school partners and associations. From January 2021-April 2021, a multidisciplinary program faculty implemented the 8-session curriculum through 60-minute clinics convened every 2-3 weeks. Participant benefits included no-cost continuing education credits as well as access to current information on issues of interest to school health professionals, opportunities to review and discuss de-identified cases, and a facilitated community of learning and support for networking with other school health professionals in the Midwest/Great Plains regions.

A core component of the ECHO model, regardless of topical focus, is evaluation. To assess participants’ SDOH ECHO experience as well as examine programmatic impacts, successes, and opportunities for improvement, the Center conducted evaluation activities throughout the program period, the results of which are summarized in this report and appendices.

► Evaluation Plan

The **American Academy of Continuing Medical Education (CME) Outcomes Model** guided the evaluation plan in assessment of five of the Model’s seven outcome levels. Four evaluation components included:

American Academy of CME Outcomes Model
Level 1 – Participation
Level 2 – Satisfaction
Level 3a – Learning: Declarative Knowledge
Level 3b – Learning: Procedural Knowledge
Level 4 – Learning: Competence
Level 5 – Performance
Level 6 – Patient Health
Level 7 – Community Health

- **iECHO** – an electronic database tool developed by the University of New Mexico Project ECHO team that helps Center staff manage ECHO programmatic components and track session attendance
- **Post-Session/Continuing Education (CE) Survey** – a brief survey to assess participant satisfaction and whether each ECHO session met objectives and inspired

plans for change; *administered to all participants after every clinic session* [sample size across sessions=118]

- **Post-Program Survey** – a longer questionnaire to gather participant demographics as well as changes in knowledge, skills, and self-efficacy before and after program participation; *administered to all participants at program completion* [sample size=23]
- **Participant Post-ECHO Interviews/Focus Groups** – virtual discussion sessions with participants to gather in-depth information about program experience and impact as well as spread and sustainability; *open to all and attended by self-selected participants at project completion* [3 focus groups/interviews; total sample size across groups=10]

Detailed result summaries of the post-session and post-program surveys are available in Appendices A and B, respectively. The focus group discussion guide and a summary of focus group findings are included in Appendices C and D, respectively.

An ongoing challenge across pediatric ECHOs is engaging busy professionals in program evaluation. Due to the relatively small sample size obtained for each evaluation component, we incorporated a mixed methods approach, triangulating quantitative and qualitative data sources to corroborate findings rather than relying on a single assessment.

Results: Participation

To assess CME Outcomes Model **Level 1 (Participation)**, Center staff tracked enrollee participation. SDOH ECHO attendees represented numerous professional roles including registered nurse (58%), advance practice nurse (3%), physician (3%), licensed practical nurse (3%), physician assistant (1%), medical assistant (1%), registered dietitian (1%) and other – unspecified (29%).

SDOH ECHO... by the Numbers	Total # of Sessions	Total Number of Unique Attendees	Average Session Attendance	States Represented by Attendees
	8	92	26	2 (NE & IA)

Based on post-program interviews,¹ the identification of shifting trends in community demographics and a desire to understand more about the challenges that students face beyond the school walls prompted participants to enroll in SDOH ECHO.



We haven't had many of these types of things in our district but as we are growing, I feel like I'm seeing more and more people who are coming in and they're living in what we would consider low-income area and are needing more help so I figured it would be good to join on these and learn as much as I could.

*...I saw 'social determinants of health' and I thought, "Oh, okay. Gosh, I'd rather learn more about the day-to-day things that I do." But then you realize this **is** day-to-day. These social determinants of health affect everything, a child's education from an early age, everything. It encompasses everything.*

At program conclusion, Children’s **awarded** a total of **126 Continuing Nursing Education credits and 10 Continuing Medical Education credits** across SDOH ECHO participants.

Results: Participant Experience

We examined Outcomes Model **Level 2 (Satisfaction)** and **Level 3 (Learning: Declarative Knowledge and Procedural Knowledge)** by assessing self-reported ECHO

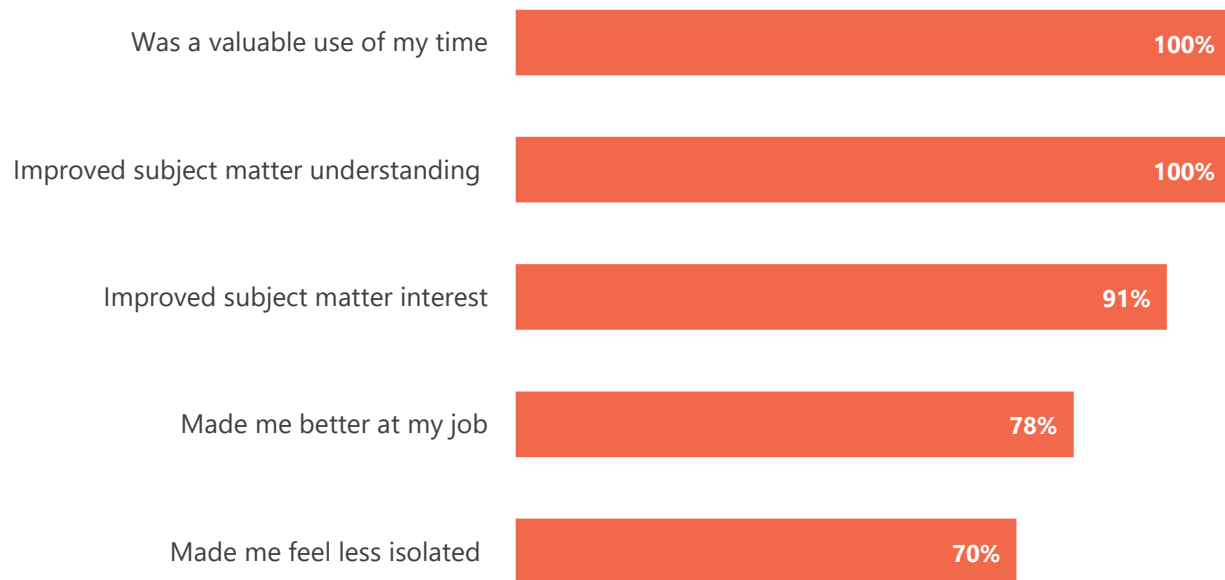
¹ Participant quotes throughout this report have been lightly edited for readability and redacted for confidentiality and anonymity.

participant experience and benefits. Post-session and post-program survey results reflect learners’ high ratings of both individual SDOH ECHO sessions and the ECHO program overall.

Over 95% of participants completing post-session continuing education surveys *agreed* or *strongly agreed* that individual sessions met learning objectives, offered evidence-based content relevant to practice, and provided information that will improve patient treatment and management.

With opportunity to reflect on their experience at ECHO conclusion, the majority of participants who completed the post-program survey *agreed* or *strongly agreed* that SDOH ECHO provided a satisfying educational experience, offering numerous benefits.

SDOH ECHO provided a number of participant benefits...



To further understand learner experience with the primary activities that comprise a typical ECHO session, focus group and interview attendees shared insights about the utility of didactic and case-based presentations.

Post-ECHO focus group participants described how the **didactic presentations** raised their awareness about the impacts of SDOHs and helped them to make connections between the challenges faced by students and their families and issues such as

absenteeism and frequent visits to the nurse's office. Learners valued the dedication, expertise, and resources offered by clinical faculty. Suggestions for improving the didactic presentations focused on time management to ensure sufficient opportunity for participant questions and discussion.



They gave me a lot to think about; some of the things I hadn't really considered as far as them being determinants of being healthy in school and whatnot. So it kind of opened my eyes to a lot of things that I hadn't considered in the past.

...it was not so much as a lecture. They were very knowledgeable. They presented their information and they opened themselves up, "Get a hold of us if you have any questions. We're here as resources." And just the number of resources that they've provided throughout the eight sessions was just astronomical to me and was very helpful for me to start that resource list as a new school nurse, "Okay, here's someplace that I can go to get some more information on this."

Case presentations and subsequent discussions allowed participants to build camaraderie, tap the expertise of recognized clinical experts, and reaffirm or revise their own decision-making and strategies to address SDOH.



Even though I am in a district with almost 60 other buildings, we are out here practicing on our own. And just to know that someone else is seeing the same issues, it just gives us community. It just helps us know that yeah, we're on the right track or yeah, I can do something different. But it just helps us know we're not alone.

...it was interesting just hearing the different issues that nurses were coming across in their schools and then getting feedback from other people on examples of how maybe you could handle it or what you could have done differently.

Reflecting on the **value of the ECHO model**, overall and compared with other training or educational formats, survey respondents and interviewees generally reported positive experiences, describing ease and convenience of the Zoom teleconference platform, good faculty accessibility for questions and answers, and availability of session recordings and slides for asynchronous viewing. The opportunity to earn continuing education credits without travel was a meaningful benefit made more so in light of COVID-19 restrictions.



It expands our entire support system...among us, nurses, I mean, especially the school nurses because we're kind of our own entity a lot of times. And we're not really part of the teachers but we're part of health services. But yet we're all spread out, so we don't have someone else right here with us.

I really appreciated the one-hour packages...I am at work, so kind of like squeezing this in between kids. But an hour, I can do. There were some times I just kind of muted, went off-screen, took care of kids, came back.

Results: Impacts & Outcomes

Beyond attendance, participant satisfaction, and benefits attained, perhaps the most critical determination of an ECHO's success is outcomes and impacts – on the care that learners provide to their students/patients as well as improvements within the systems in which they serve youth, families, and communities. For example, did SDOH ECHO participation foster:

- Improved knowledge, skills, and self-efficacy specific to key school health-related concerns faced by children, youth, and families?
- Behavior change at the individual healthcare provider level translated to enhanced student/patient care?
- Policy, procedure and/or process change at the school or district level?

Post-program survey and focus group data inform the answers to these questions, addressing **Level 4 (Learning: Competence)** and **Level 5 (Performance)** of the Outcomes Model.

▶ Participant Impact

The post-program survey asked learners to reflect on their **knowledge** – both prior to and at the conclusion of SDOH ECHO – regarding several aspects of SDOHs salient to children, adolescents and families (See Appendix B for a detailed summary of post-program survey results).

SDOH ECHO **improved** participants' self-reported **knowledge** in all aspects assessed. The percentage of learners who described themselves as *Knowledgeable* or *Very knowledgeable* **increased by ≥50 percentage points**, pre- to post-ECHO, in the following areas:

- ✓ Current demographic trends in Nebraska (↑79% points)
- ✓ The definition of social determinants of health (↑75% points)
- ✓ The impacts of poverty and inequities on Nebraska students (↑67% points)
- ✓ Relevant resources available through the Nebraska Department of Education (NDE) and other agencies (↑66% points)
- ✓ How SDOHs affect student learning (↑64% points)
- ✓ How policies, practices, and stereotypes can work against students of color and impact opportunities for academic success (↑62% points)
- ✓ How SDOH affects absenteeism (↑56% points)
- ✓ Challenges that immigrant and refugee families may encounter in their new communities (↑50% points)

In addition to knowledge gain, **intent to change** is another indicator of program impact. Based on post-program survey responses, >90% of participants had identified actions by which to apply ECHO learnings in the professional setting. Further, when asked to characterize those actions – anticipated or already applied – respondents had implemented or expected to make changes regarding **best practices** or **guidelines** (52%), **professional practice** (52%) and/or **policy/procedures** (17%). Although the majority (65%) perceived no barriers to change, the most frequently cited barriers were lack of management support (13%) and lack of coworker support (13%).

Focus group and survey participants shared examples of enhanced knowledge and awareness through the following comments.



I learned different ways to ask questions to see if assistance is needed.

Acknowledge with respect the injustice and lack of privilege that Native American, African American, and other non-Caucasian people groups experience in the USA.

Thinking about children having "two worlds" really hit me as very interesting to understand. I will change how I address all the children I work with.

Being from a small town - and very little diversity-- it helped me to better understand there is more than what I live and it makes me more ready to want to help.

I think when you attend a program like this or the ECHO programs, it helps you think in a different lens as well. I sit on the attendance team, and it seems like we're punitive. But one of the things really stuck to me, celebrate when kids do come to school. And so I've really been trying to-- even when kids are late for their medication, I just really try to say, "I'm so glad you're here today," and just, it's not their fault. So I try to remember that and just remember every different lens.

One of my favorite parts of school nursing is having resources and knowledge to care for my students not just their physical health but their mental health and being able to understand different risk factors based on social factors.

► Student Care – Management, Strategies, and Programs

SDOH ECHO launched at the height of the COVID-19 pandemic in many states across the country. With a high number of schools closed or engaged in hybrid learning, participants worked to creatively apply newly-acquired information and resources in their school and district settings. Despite challenges, in addition to reports of improved knowledge and self-efficacy, focus group attendees shared changes in their approach to student care as a result of ECHO participation.



...especially in my Title 1 schools, I have a lot of kids with sleep issues. I know there's a lot of instances of single-parent homes, so the kids go home after school; parents who may be shift workers, so the kids are on their own after school, sometimes even to get themselves to bed in the evening, which I'm sure is at late times. I don't know exactly what they're eating for that evening meal or if they're eating. Maybe they're only having breakfast and lunch at school. So there's a lot of avenues down that route that I can follow up on for sure.

I really want to work on making the health office more culturally diverse. I just hadn't done that yet or known where to get all the resources in order to do that. This year with COVID and everything else, it hasn't been the best time to get to all of that. But that is definitely on my summer to-do lists and at the beginning of next year to do whatever I can't get done this summer.

I want to look to forming an attendance team with assigned contact person

I think it was in the last session that they talked about creating opportunities for children to learn -- different types of opportunities and have to take into account cultural issues and everything. But they mentioned just some fun things, like practicing to run a marathon, not a real marathon but marking down 2 miles here until you reach 26 and doing fun things. So just getting kids engaged. So that's one of the things I'm going to be looking at. I'm also looking at reading more books that deal with social differences of health and just getting more into the topic...Doing fun things with kids, and that is in the context of building relationships. Letting kids know that I'm there, I care...

► Information Sharing

Despite COVID-19-related obstacles, participants described sharing ECHO learnings with colleagues and other school personnel.

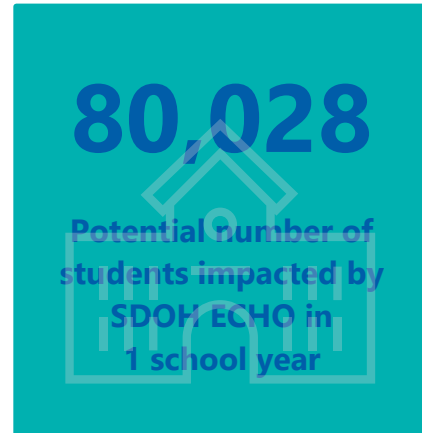


We have staff development days once a month or roughly once a month and when we get together for those, we'll talk about the ECHOs and what we talked about, and if anybody has tried any of the tips and tricks that they told us, or if they have any issues. So we do ruminate on that kind of stuff from time to time.

We actually have several paras [paraprofessionals] at our school that are going through college and getting their teaching certificate. And so I shared quite a bit with them because I knew that they were in the process of doing papers and projects for school. And I shared some of the resources and the references with them to say, "You know this might be something that you want to take a look at if you're going to become a teacher. This will be good information for you."

► SDOH ECHO Reach

An additional measure of impact is the number of students potentially touched by SDOH ECHO. As a proxy estimate of reach, we utilized a post-program survey question that asked participants to estimate the number of youth seen in a professional capacity during a typical month. We averaged responses across post-program survey respondents (M=342) and multiplied by the average number of SDOH ECHO attendees per session (n=26) and again by 9 (months) to derive a proxy count of potential reach over one school year. Noting that post-program respondents characterized ~35% of their student/patient population as underserved further amplifies the impact of SDOH ECHO reach.



Conclusions & Next Steps

Evaluation of SDOH ECHO highlights positive impacts and outcomes for both individual participants and the schools, districts, and communities in which they serve youth and families. Attendees reported high satisfaction with SDOH ECHO sessions as well as the ECHO model. SDOH ECHO improved and enhanced participants' knowledge and awareness of SDOHs, empowering school nurses and other school health professionals to provide enhanced student care and better support youth and their families through programs and policies that can have lasting impacts at the school and district level.

The generalizability of SDOH ECHO evaluation findings is limited due to the relatively small proportion of participants who completed post-session questionnaires and took part in a post-ECHO interview. Over 40% of those who completed the post-program survey attended <4 ECHO sessions so their experience may be different in ways indistinguishable from those who attended more sessions. Further, although numerous focus group attendees valued the ability to asynchronously view session recordings and

reported doing so regularly, opportunities for shared learning through participant discussion and problem solving is diminished when only a small number of learners join the live ECHO sessions. In addition, we lack student- and school/district-level data to corroborate participant reports of improvements and changes. In general, however, findings across multiple evaluation components suggest that SDOH ECHO met objectives and provided an innovative and impactful learning experience for attendees.

Future ECHO programs may be enhanced by promoting the importance of synchronous participation and engagement in ECHO sessions. As more attendees choose to skip sessions for the added convenience of viewing archived recordings, opportunities to build trust and community and lessen feelings of isolation among participants are reduced.

As the country emerges from the COVID-19 pandemic, there is growing recognition of the important role that schools will play in supporting the physical, social, and emotional health of their students. By providing Nebraska’s school nurses with the awareness, knowledge, and resources to disrupt the impacts of SDOHs in the lives of students and their families, the Center continues to fulfill its mission and vision.

Appendices

Appendix A Post-Session Questionnaire – Detailed Summary

Appendix B Post-Program Survey – Detailed Summary

Appendix C Focus Group Discussion Guide

Appendix D Focus Group Summary Report

Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health (SDOH ECHO) Post-Session / Continuing Medical/Nursing Education Survey Summary

Number of Surveys Submitted by ECHO Session

Curriculum topic (Date)	Number of surveys submitted
Connecting Poverty and Inequity with Health and Academics (January 13, 2021)	27
Understanding the Complexities of SDOH on Chronic Absenteeism (January 27, 2021)	13
Race and Ethnicity's Impact in the School Setting (February 10, 2021)	24
The Effects of Language and Cultural Barriers in the Classroom (February 24, 2021)	19
Housing and Transportation Challenges for Today's Youth (March 17, 2021)	10
Unpacking Food Insecurity for Students and Families (March 31, 2021)	0 ¹
Utilizing Discernment Around Violence, Child Abuse and Neglect (April 14, 2021)	16
Addressing SDOH as a Child Health Advocate (April 28, 2021)	9
Total	118

¹ No CME survey administered following March 31 session

ECHO Participant Professional Role

	%
Nurse	92
Nurse Practitioner	3
Physician	3
Physician Assistant	1
Other	1

ECHO Session Experience (% strongly agree / agree unless indicated; individual question sample size ranged from n=111-117)

Presentation	
The speaker(s) demonstrated mastery of the subject	100
The stated educational objectives were met	100
Teaching methods and presentation skills were effective	100
Content and Format	
Presentation was given without commercial bias or influence	100
The educational format for this activity was appropriate for the content	100
The content was evidence-based	99
The material presented is relevant to my practice	97
Information will improve my ability to treat and manage my patients	97
Outcomes (Attending ECHO session increased/improved...)	
Competency (ability to apply the knowledge)	98
Performance (what is actually done in practice)	96
Patient outcomes (ability to positively impact health status)	97
Commercial Support/Disclosure (% yes)	
The conflict of interest or lack thereof declared by planners and speakers	97
Commercial support or lack thereof was acknowledged accordingly	97

Appendix A

Topical Knowledge Change as a Result of ECHO Session

Session Date	Participant Comments
01/13/21	<ul style="list-style-type: none">• 100% yes
01/27/21	<ul style="list-style-type: none">• 100% yes
02/10/21	<ul style="list-style-type: none">• 100% yes
02/24/21	<i>Question not asked</i>
03/17/21	<ul style="list-style-type: none">• 100% yes
04/14/21	<ul style="list-style-type: none">• 100% yes
04/28/21	<ul style="list-style-type: none">• 100% yes

Open-Ended Question Responses by Session

Anticipated Practice Change(s) Related to Session Content

Session Date	Participant Comments
01/13/21	<ul style="list-style-type: none">• Sharing SDOH with other professionals at our school• How I address and view social determinants when dealing with health disparities in my health office• Collaborate with peers and other school staff in developing strategies to assist students and families• More understanding of poverty• Being more collaborative with staff• To get more information regarding a student or the student's family situation to help assist the best way possible.• Increased knowledge of varying home lives of students will help me solve more health concerns with students and families• How much I have an impact on kids in the school setting regarding health and how to communicate that with primary care• I learned different ways to ask questions to see if assistance is needed.• Be more aware of students that may need assistance.• Considers SDOH when assessing health• Better communication about the link between health and education / education and health• Looking into possible economical or social barriers that are creating attendance issues as part of attendance hearings/recommendations

Appendix A

Session Date	Participant Comments
	<ul style="list-style-type: none">• Possible conversation approach to families.• How I interact with parents. How I approach challenging family situations.• To assess social determinants of health in my overall assessment and problem solving with families.• Taking into account social factors contributing to the child's medical needs.• Really looking into the barriers that may present in the home for a student• Nothing; I cannot think of anything at this time. (2)
01/27/21	<ul style="list-style-type: none">• Using Social Determinants of Health Screener• Need to learn more about my student's life outside of school hours so I can help or refer families to get help which will hopefully reduce risk factors for absenteeism• Discussing the importance of total number of missed days instead of just the unexcused days as having a negative impact on children's academics/health.• Use Children's as a resource if needed for students with chronic health conditions• Watching for chronic absenteeism and trying to establish a baseline of the family's resources and socioeconomic status• Share information with the school nurse, counselors, social workers and administrators regarding barriers to education when substituting at a school.• Increasing school staff awareness of what chronic absenteeism is and measures to deal with individual student situations.• I want to look to forming an attendance team with assigned contact person• Continue to check on our absent kids• Working more with office staff to find out the reason behind chronic absenteeism
02/10/21	<ul style="list-style-type: none">• Open my eyes to cultural barriers• Helps me understand language barriers• Acknowledge with respect the injustice and lack of privilege that Native American, African American, and other non-Caucasian people groups experience in the USA.• Make a greater effort to question home/cultural practices and beliefs in dealing with health situations• Reframe my perspective with families/students of color.• Looking at a student and their family and their cultural backgrounds to determine the appropriate treatment and care for that student• Continuing to try to look through lenses of other cultures in order to provide competent, culturally congruent care• 4 questions presented by Barry Thomas when looking at our student's situation• I will encourage teachers to reach out to families more to see if they have the tools needed at home to help the student succeed.• Love the equity slides

Appendix A

Session Date	Participant Comments
	<ul style="list-style-type: none"> • Thinking about children having "two worlds" really hit me as very interesting to understand. I will change how I address all the children I work with. • I work in 2 Native American populated schools so I am not sure if I will change anything at this time as I am very familiar with all of this. • I will continue to work with my native and Hispanic populations to ensure they have access to screening and health care in our community. • Continue to strive to provide for the diverse population of my school. • Being more aware of Indian culture walking in two different worlds • Looking to barriers/hesitancies of students that are identified as economically disadvantaged • Be more aware of culture/racial bias and help to bridge the gap in my practice. • Try to do more inclusion • Trying to realize equality vs equity and what I can do to narrow the gap
02/24/21	<ul style="list-style-type: none"> • Understand the importance of language • Different beliefs in our community. • Consider a different framework/perspective for health practices • Being from a small town - and very little diversity-- it helped me to better understand there is more then what I live and it makes me more ready to want to help. • Always get an official interpreter. • Better understanding of status. Ways to assist becoming eligible for assistance/citizenship. • Just be more aware. • I will no longer allow one of my students interpret messages to her parents regarding health related information. • Asking the students how they are doing, if they need anything. • Definitions of refugee/SIV/Asylum seekers/Family petition • Accepting uncomfortableness with interpreters • I use an interpreter to work with my parents when there is a health issue. • Learning schools legal role in providing interpret and how best to obtain • Make sure I have an appropriate interpreter when interacting with parents.
03/17/21	<ul style="list-style-type: none"> • Helps me recognize children's concerns • Recommend and use 211 • Knowing there are more definitions of COVID caused/related reasons for not being able to pay housing • Providing resources to families • More aware of some of the children I am working with in the school and their personal home issues. Will be working with the teachers concerning this. • We have a high poverty ratio for our families and I am excited to share the 211 site with our liaison to help our families. • Call 211 more often for help with students/ families

Appendix A

Session Date	Participant Comments
04/14/21	<ul style="list-style-type: none">• Not assume the best/ worst but ask more questions to get answers• Not trying to get too much information from the child before reporting the abuse• Asking CPS for alternative response when talking to cps• I know more resources• Awareness of potential flags of neglect or abuse• Be more attentive to the "voice" of the students• Will help support persons that need to make a report• Work closer with families• Asking CPS if they will accept a report• Better incorporation of SCIP and MDT resources• NA
04/28/21	<ul style="list-style-type: none">• Leading by example is best.• Thank you for all of the great resources!!!• Access to State of NE resources that were introduced- was not aware of most• I know I should get involved and now I know more resources to go to• NA

Perceived Barriers to Implementing Change(s)

Session Date	Participant Comments
01/13/21	<ul style="list-style-type: none">• Students not being forthcoming on their social barriers.• Time and ability to develop trust with families• Push back from parents• Time constraints.• School attendance for the student• Establishing relationships with parents/guardians of these students can be very difficult• Many employees and resources in my school - knowing my role or what programs exist is challenging.• Finding the right words and language to become trusted partner• School administration not wanting to acknowledge that the school nurse can do more for education of the students.• Language barriers, lack of interpreters• Parent defensiveness• Initial distrust by some parents. Must build trust relationships.• Lack of communication, lack of interaction with students• Cultural and language barriers• Nothing; none (5)

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Session Date	Participant Comments
01/27/21	<ul style="list-style-type: none">• Willingness of families to answer questions• School administrators are more interested in what comes through NDE or following the laws.• Being a school nurse to so many buildings, it is hard to add this to the list of duties every week• Everyone's current workload and making chronic absenteeism a priority to focus on improving.• reluctance to "butt in" to family issues that may be leading to increased absences• Language and cultural barriers• I don't really see any. Most are appreciative of the support.• None; not sure (3)
02/10/21	<ul style="list-style-type: none">• Courage to speak up• Apprehension to a white nurse asking about nonwhite things.• My own bias• Having so many buildings and not having the appropriate amount of time with the students• The challenge of knowing the student's full background and their beliefs within certain cultures• My ability to make some changes for our students• The fine line of when to talk about it• Others who don't quite understand.• Families' willingness to acknowledge their need and seek help• None (7)
02/24/21	<ul style="list-style-type: none">• Some suspicion.• Need to allow time to build relationship and trust.• I only speak one language -- so my abilities do not meet my want to help.• Language barriers, but we have adult staff translators to assist us in this area.• Lack of resources within my district• Making sure the interpreter is available in a timely manner as there are not many in our area that we use as a school.• I do not have any ELL students at my part of the state but do feel at some time we will• There is not always one available.• None; not sure (5)
03/17/21	<ul style="list-style-type: none">• Great information, but not really applicable for the WHOLE state of Nebraska. Most of the population is in the east, but there is a larger state past Grand Island.• Parents embarrassment.• Families not ready for handouts.• None (4)
04/14/21	<ul style="list-style-type: none">• Feedback from parents/ child to be truthful

Appendix A

Session Date	Participant Comments
	<ul style="list-style-type: none">• Convincing school administrators a call was warranted. Convincing schoolteachers they also need to make reports.• Remembering• Covering multiple buildings in the district and not being fully aware of certain situations.• Parents acceptance of assistance• Administration hesitancy• None; NA (5)
04/28/21	<ul style="list-style-type: none">• People who don't like change• Cooperation from our school nutrition services for assistance to nurse office is poor/none• None; NA; not sure (3)

Comments or Suggestions for the Speaker

Session Date	Participant Comments
01/13/21	<ul style="list-style-type: none">• Great job!• The different perspectives and knowledge base of each speaker was helpful for learning• More simple case studies. This is what was happening - this was what was implemented = outcome.• It was very informative.
01/27/21	<ul style="list-style-type: none">• I agree that SDOH will impact attendance, but I felt the speaker did not acknowledge that there are (many) families that for some reason, will just let the kids stay home if they want to. The nudge of the law may be the only thing that makes the difference. Education is not valued in all families!
02/10/21	<ul style="list-style-type: none">• It was great!• All three speakers were incredibly knowledgeable and so easy to listen to• They were great - thank you.• Was very well done -- everything.• This was an excellent presentation! I loved the analogy of the optometrist visit not being available to all, whilst so many of us take it for granted
02/24/21	<ul style="list-style-type: none">• All were excellent!• I understand this is their passion -- but best not to not at least try to understand what I would call the narrow minded -- everyone has a reason for their strong beliefs.
03/17/21	<ul style="list-style-type: none">• Loved the overview in relation to school performance
04/14/21	<ul style="list-style-type: none">• MD was fantastic and to the point.• Wonderful presentation!!!!

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Session Date	Participant Comments
	<ul style="list-style-type: none">• Recognizing / assessment of students who are under the influence and how to care for.• Loved this session• Dr. Haney is always great!
04/28/21	<ul style="list-style-type: none">• This was so helpful.• Teenage drug use- assessment of student Teenage pregnancy

Suggested Future Activities, Topics, Speakers, or Interest in Presenting

Session Date	Participant Comments
01/13/21	<ul style="list-style-type: none">• Asthma
01/27/21	<i>No participant comments</i>
02/10/21	<ul style="list-style-type: none">• Medical lessons for School nurses - Common ear, eyes, nose and throat problems and how we can help.• Diabetes
02/24/21	<i>No participant comments</i>
03/17/21	<i>No participant comments</i>
04/14/21	<ul style="list-style-type: none">• More case studies that aren't made up and don't have so many preliminary details
04/28/21	<i>No participant comments</i>

Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health (SDOH ECHO) Post-Program Survey Summary¹

SDOH ECHO Experience

	% Strongly Agree/Agree
SDOH ECHO was a valuable use of my time	100
I was satisfied with this training overall	100
SDOH ECHO provided an appropriate balance between instruction and practice	100
My <i>understanding</i> of the subject matter has improved as a result of participating in SDOH ECHO	100
My <i>interest</i> in the subject matter has improved as a result of participating in SDOH ECHO	91
The content of SDOH ECHO was relevant to my student/ patient population	87
SDOH ECHO made me better at my job	78
SDOH ECHO participation increased my professional satisfaction	78
SDOH ECHO participation made me feel less isolated	70

¹ Sample size = 23

Intent to Change as a Result of SDOH ECHO Participation

Planned changes as a result of SDOH ECHO participation	% Yes
Change in best practice or guideline	52
Change in professional practice	52
Change in policy or procedure	17
Other change(s) (<i>I will reach out to those I need to regarding these</i>)	4
No change	9

Anticipated barrier(s) to change	% Yes
No barrier(s) identified	65
Lack of management support	13
Lack of coworker support	13
Insufficient knowledge	9
Insufficient skill set	4
Other barriers (specified – response included <i>Support from parents</i>)	4

Supports needed to overcome barriers [n=7]
<ul style="list-style-type: none"> • <i>Community buy in</i> • <i>Educating coworkers, principals, administration</i> • <i>I need to build the parents trust so that they know they can count on the school for assistance.</i> • <i>I think that school administrators need to be aware of the value of school nurses and the services they provide (many of which fall outside of the stereotypes still held about our profession</i> • <i>Improved communication and collaboration</i> • <i>Policies are written top down, so support for many initiatives at school are hard to implement.</i> • <i>Presentation at school board and administrator's meetings</i>

Retrospective Self-Reported Change in Knowledge and Self-Efficacy with SDOH ECHO Participation

Knowledge before and after ECHO participation²	Before ECHO Participation (% Very knowledgeable/ Knowledgeable)	After ECHO Participation (% Very knowledgeable/ Knowledgeable)	Pre-Post Percentage-Point Change
Scale: 1=Very knowledgeable, 2=Knowledgeable, 3=Somewhat knowledgeable, 4=Not very knowledgeable, 5=Not at all knowledgeable, 6=Not applicable			
Connecting Poverty & Inequity with Health & Academics			
The definition of social determinants of health (SDOH) [n=16]	13	88	↑ 75
The impacts of poverty and inequities on Nebraska students [n=16]	33	100	↑ 67
How SDOH affects absenteeism [n=16]	44	100	↑ 56
Race and Ethnicity's Impact in the School Setting			
How policies, practices, and stereotypes can work against students of color and impact opportunities for academic success [n=16]	38	100	↑ 62
Effects of Language and Cultural Barriers in the Classroom			
Current demographic trends in Nebraska [n=14]	14	93	↑ 79
Challenges that immigrant and refugee families may encounter in their new communities [n=14]	36	86	↑ 50

² Participants who did not attend an ECHO session during which specific content was covered were instructed to select the "NA" response which was excluded from analyses

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Knowledge before and after ECHO participation²	Before ECHO Participation (% Very knowledgeable/ Knowledgeable)	After ECHO Participation (% Very knowledgeable/ Knowledgeable)	Pre-Post Percentage-Point Change
Scale: 1=Very knowledgeable, 2=Knowledgeable, 3=Somewhat knowledgeable, 4=Not very knowledgeable, 5=Not at all knowledgeable, 6=Not applicable			
Unpacking Food Insecurity			
The impacts of food insecurity on students in Nebraska [n=12]	62	100	↑ 38
Utilizing Discernment around Violence, Child Abuse & Neglect			
Signs and symptoms of child abuse and neglect [n=15]	100	100	No change
Working Together for Families as Child Health Advocates Addressing SDOH			
Relevant resources available through the Nebraska Department of Education (NDE) and other agencies [n=14]	13	79	↑ 66
How SDOHs affect student learning [n=14]	15	79	↑ 64

Most Valuable Aspects of SDOH ECHO

- **ECHO Session Format / ECHO Model**
 - *1 hour sessions were manageable when working.*
 - *Loved that it was online and I could plan my day without being gone from my school.*
 - *The combination of the lectures from experts in the field with the real-life application of a case study.*
 - *The expertise of the presenters.*
 - *The length of sessions, the new materials that I otherwise would not be able to hear, mostly due to location in rural Nebraska.*
 - *The questions (and answers) that came up after presentations.*
- **Content-Related**
 - *Helping to see the needs of student/community as a whole.*

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- *How race affects their health care and learning.*
- *Learning how I can better support students in my building.*
- *Learning more about relevant topics in school nursing from different experts.*
- *One of my favorite parts of school nursing is having resources and knowledge to care for my students not just their physical health but their mental health and being able to understand different risk factors based on social factors.*
- *Resources that were shared with participants.*

- **General Comment / Unspecified**
 - *Additional learning opportunity*
 - *Learning*
 - *Transportation concerns*

Least Valuable Aspects of SDOH ECHO

- **Scheduling / Session Logistics**
 - *Timing, - 4 - 5 would have been better.*

- **Content**
 - *Much of the information, while informative, is not something school nurses can change or we get to be aware of because of the specialized teams in the school and FERPA protected information that they may or may not share. Big, urban school have so many resources that the school nurse is not utilized as much.*

Additional Feedback and Comments about SDOH ECHO

- *Appreciated the short presentations as it was much easier to attend. Thank you!*
- *Great presenters!*
- *I loved the sessions I was able to attend!*
- *I was unable to attend several of the sessions as they are central time and so that meant they were during recess time and the time in the afternoon that I teach class. I teach every other week and they always seemed to fall on my teaching week.*
- *It may have been addressed in a session I missed but would like to hear more about The Special Needs population. I think the SDOH impacts these families on several levels.*

Participant Demographics

	% unless otherwise indicated
Number of ECHO sessions attended	44% attended 1-3 sessions 39% attended 4-7 sessions 17% attended 8 sessions
Professional Training	
Nurse (RN)	96
Other (responses included: <i>LPN</i>)	4
Professional Setting(s) – participants could select all that applied	
Elementary School	65
Middle or Junior High School	39
High School	52
Other (responses included: <i>Hospital; Full-time sub; preschool; School Health Administration; special education (2)</i>)	26
School/Professional Location	
Rural	39
Urban, not inner-city	30
Urban, inner-city	17
Suburban	13
Number of Years in Profession	M=22 years (range=6-47 years)
Gender	
Female	100
Estimated % of student/patient population characterized as underserved	M=35% (range=1-75%)
Estimated number of children/youth cared for in professional setting in an average month	M=342 (range=0-1,200)
School nurse (or representative of a Nebraska school district) participating in the Centers for Disease Control and Prevention (CDC) Healthy Schools grant [% yes]	22

**Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health
Participant Focus Group/Interview Discussion Guide
Center for the Child & Community
Children's Hospital & Medical Center**

ECHO Experience

1. We're going to spend a few minutes talking about the different components that make up an ECHO session. First please think about the brief faculty lectures offered during each session.
 - a. In what ways, if any, were the brief lectures helpful?
 - b. What could be improved about the brief lectures?
 - c. In general, how relevant – or not – are the lectures to the issues of greatest interest or challenge regarding health issues in your school setting?
2. Now please think about the case-scenario presentations by you and your peers).
 - a. In what ways, if any, were the case presentations helpful?
 - b. What could be improved about the case presentations and discussions?
 - c. In general, how relevant – or not – are the case scenarios to the issues of greatest interest or challenge to addressing health issues in your school setting?
 - d. Across ECHOs, one of the biggest challenges for the hub or host team is getting participants to submit and present cases so it's helpful for us to understand the barriers and challenges associated with that ask.
 - i. If you are someone who submitted a case, please tell me about your experience.
 - ii. What would make submitting a case easier?
3. In what ways does the ECHO model provide value over other types of learning opportunities or trainings (such as face-to-face trainings, workshops, online learning programs)?

Probe: In what ways, if any, has SDOH ECHO created a sense of community around this topic? Facilitated networking?

Now let's consider the flip side. What, if any, are the drawbacks or disadvantages of the ECHO model?

Putting ECHO Learnings into Practice

4. In what ways are you using what you learned from this ECHO with your students, other school personnel and/or school administration?

Probe: What do you do differently as a result of SDOH ECHO participation? To what degree are you able to apply concepts presented by others in the SDOH ECHO sessions to students with similar problems?

*Probe: Please share an anecdote or example of a situation where the care of a student was directly impacted by knowledge or skill you acquired as a result of ECHO participation. As a reminder, please **do not** include any information that might be construed as information protected by FERPA or HIPAA in your comments.*

5. What, if any, other changes do you plan to implement in your school as a result of SDOH ECHO that you have not yet had time to accomplish?
6. What, if any, practice-related problem or concern did you experience prior to involvement that was answered or resolved by your participation in this ECHO?

Probe: What problems or concerns remain unanswered?

7. Much of healthcare involves a team of caregivers who care for students. Did you participate in SDOH ECHO with any others from your school or district?

*If yes, probe in what ways that has been helpful.
If no, probe why and would that have been helpful?*

8. Who has shared something that they've learned through ECHO participation with a colleague?

Probe: Tell me more about that

Probe: What facilitates or inhibits sharing information and practices from the SDOH ECHO clinic with colleagues?

Future Planning

9. What would you change, modify, or add to improve SDOH ECHO if this program is offered again in the future?

Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health (SDOH ECHO) Participant Focus Group/Interview Summary

Background

Project ECHO: Addressing Social Determinants of Health (SDOH) in School Health (SDOH ECHO) evaluation included post-program participant interviews. Within two weeks after the final SDOH ECHO session, an external evaluator conducted 2 small group interviews and 1 individual interview to better understand participant experience and program impact. Each group/interview convened virtually via Zoom teleconference and utilized the same semi-structured interview guide. Discussions lasted ~20-60 minutes and were recorded for transcription and analysis of key themes.

Across the focus groups and interviews, 10 school nurses – all women – took part. The majority (7) participated in a previous ECHO session; most attended the Children’s-sponsored Spring 2020 School Health ECHO series. All participants served schools in Nebraska (n=8) or Iowa (n=2). The age of participants’ students ranged from preschool to 21 years (special education program). Several nurses described their district’s location as rural and numerous participants provided care across multiple schools, some in Title 1¹ schools.

The following participant quotes exemplify responses in each thematic area discussed.²

Reasons for Joining SDOH ECHO

...my administrator requested that I participate...even though I have been in nursing for over 30 years, this is my first year as a school nurse. So bringing my past nursing career...it was really very enlightening for me to see those social effects of health on children when I'm used to seeing it in other perspectives.

¹ Title 1 funds “provide additional academic support and learning opportunities” to schools with ≥40% of enrolled students from low-income households.

² Participant quotes throughout this report have been lightly edited for readability and redacted for confidentiality and anonymity.

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...in the health office, we see how the social determinants, and the poverty level, and the language barriers and how that affects more frequent visits to the health office. Absenteeism. A lot of the topics that we went over and just to be able to watch the presentation and participate in them when we can definitely relate to them on a day-to-day basis.

*...I saw 'social determinants of health' and I thought, "Oh, okay. Gosh, I'd rather learn more about the day-to-day things that I do." But then you realize this **is** day-to-day. These social determinants of health affect everything, a child's education from an early age, everything. It encompasses everything.*

...if we're trying to figure out a student that might be struggling, there may be some things going on at home or a lack of food or housing or something's going on that may be affecting the whole family.

We haven't had many of these types of things in our district but as we are growing, I feel like I'm seeing more and more people who are coming in and they're living in what we would consider low-income area and are needing more help so I figured it would be good to join on these and learn as much as I could.

...there's a lot of families that are really struggling either with housing that's not the safest or trying to find a steady job or income.

I like the ECHO projects. I just think there's-- you have lots of topics that I could never have time to read in or go to conferences and stuff.

ECHO Experience

► Didactic Presentations – Strengths

Participants described how the educational segments raised their awareness about the impacts of SDOH and helped them to “connect the dots” regarding challenges faced by students and their families. Learners valued the dedication, expertise, and resources offered by program faculty.

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They gave me a lot to think about; some of the things I hadn't really considered as far as them being determinants of being healthy in school and whatnot. So it kind of opened my eyes to a lot of things that I hadn't considered in the past.

...Meeting, especially the presenters who talk at the beginning, to know that they're out there and the resources we can use if we do have a question. And you can just see the passion that they present when they talk. You know that they love their jobs.

...it was not so much as a lecture. They were very knowledgeable. They presented their information and they opened themselves up, "Get a hold of us if you have any questions. We're here as resources." And just the number of resources that they've provided throughout the eight sessions was just astronomical to me and was very helpful for me to start that resource list as a new school nurse, "Okay, here's someplace that I can go to get some more information on this."

It ties right into the social-emotional learning that we're doing within our district. But we're seeing all of those things. We're seeing transportation issues, food insecurity housing issues. And someone else said, I think COVID has just exacerbated all of this, but I think it's all been relevant to what I am seeing in my urban setting.

There was two of them that I really found helpful...they talked actually about how to provide education to kids in classrooms and how diverse the classrooms...and they had a number of different presenters that had a lot of information regarding what we can do for kids that come from a diverse population, so there was lots and lots of information. In fact, I think I rewatched that video or that recorded part two or three times afterwards after I watched it originally, so... I like the way that they're put together. I like the briefness. I like the information they give. It's concise. And again, they can give a ton in a short amount of time.

► **Didactic Presentations – Improvement Opportunities**

Suggested improvements to the didactic component included more time for discussion/cases, offering content appropriate for the full age range of participants'

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student populations, and ensuring actionable strategies and resources to complement every didactic topic presented.

I think the lecture portion is maybe a little bit long...just on a couple of them, the information is kind of one of those, we may have already seen it before...get more to the good stuff, as opposed to just the general outline of what you're going to talk about since we should be familiar with most of the terms and things that they go over. But it's never bad to refresh, but some of them are just-- I would like more case studies...I think that's a more important tool for us to see real life happening and how people work through these...

...there wasn't always enough time to really interact after that as much as we probably could have.

...a lot of these may not have been applicable just based on the age of my students.

...for every lecture, every piece, every problem they present, I think it would be good to have: "How do we take that back? How do we make use of that information?" And then, again, resources for everything to help our families. So every problem that's presented, every issue that's discussed, if we can have something to build on to take back to our kiddos in our families.

► Case Presentations – Strengths

Case presentations and subsequent discussions allowed school nurses the opportunity to build camaraderie, tap the expertise of recognized clinical experts, and reaffirm or revise their own decision-making and strategies to address SDOH.

Even though I am in a district with almost 60 other buildings, we are out here practicing on our own. And just to know that someone else is seeing the same issues, it just gives us community. It just helps us know that yeah, we're on the right track or yeah, I can do something different. But it just helps us know we're not alone.

The Children's doctor was in a lot of these. And she came as an expert medical opinion. And she chimed in a couple of them, where she was like, "Yes, this is absolutely true. This is what you should be looking for." I just liked having that medical person almost always on these to be like, "Yes, this is exactly what I've seen. And you're on the right direction. Or "No, we

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need to look at that from a different perspective." I thought just having her around was nice.

I really liked the child abuse doctor. She was direct. She answered questions directly. She was like, no nonsense. I don't know. I liked her insight and her demeanor. I mean, you're dealing with a very touchy topic. And all of us are like-- we see some things, we're like, "Does that need to be escalated? Do we need to report this? How exactly do we go about it?" I've never reported anyone, but there have been a couple times that I've been very, very close to and like, "Wow, we need to do something." She answered a couple of my questions at the end and I wish I would have had another 20 minutes to pick her brain.

...it was interesting just hearing the different issues that nurses were coming across in their schools and then getting feedback from other people on examples of how maybe you could handle it or what you could have done differently.

► Case Presentations – Improvement Opportunities

Those who attended the previous School Health ECHO recalled that participants had more responsibilities for case presentations than in SDOH ECHO. Focus group attendees encouraged the Children's team to amplify outreach to ECHO participants regarding case submission and presentation. Participants also requested that case presentations/discussions be included in session recordings. ECHO program staff may wish to provide more frequent explanation and reminders about why case presentations are *not* recorded for learner information as well as a strategy to encourage live participation.

I wonder if they had perhaps checked in a little bit more often in between each session. I know I got maybe one or two emails that said, "If you have a case study for the upcoming session, please let us know." But I didn't get one for everyone. And maybe just an extra check in, "Okay, we're going to meet tomorrow or something. Do you have a case study for us to look at?" That may have stirred some additional conversation to have more case studies available.

They did that [case study requests] a lot for the fall ECHO series... they didn't do it a lot for this one. The only thing that I would say is that I did watch one session. It was recorded. I couldn't attend it live. And the case

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study was not attached to it. Or maybe there wasn't a case study that at that particular time. So just to make sure that, in the trying times that we have going forward, if possible, to record that case study as well, not just the lectures. But I think that it's just so interesting to hear a situation, again, that might be similar to my own and then to see how people help resolve some of the issues and move the family forward.

Value of the ECHO Model

► Strengths

Particularly in the midst of the COVID-19 pandemic, participants valued the ECHO model's virtual format. Learners welcomed the ease of videoconferencing and the ability to earn no-cost continuing education credits without time off or travel. Participants also appreciated access to faculty experts, ability to have questions answered in real time, and provision of materials in advance of each session.

...the nice thing about not having to travel...I typically spend two days traveling for one day of workshop.

...to do it by Zoom is a godsend because I can meet with all of you people all across the state. Even with the case studies, you learn so much and you can apply it to you but you can also sit there and ask them questions as they're going through it. If I were here by myself and that came into my office, I'm going to handle it my way because that's the only way I know how until I hear how other people are handling it. So to meet with everybody else and see their take on it and their content is great.

It expands our entire support system...among us, nurses, I mean, especially the school nurses because we're kind of our own entity a lot of times. And we're not really part of the teachers but we're part of health services. But yet we're all spread out, so we don't have someone else right here with us.

I appreciate that I can do it at the end of the day when I'm still in my building. I know we're dealing with two time zones when we're doing this because our western Nebraska friends are on Mountain Time. But they seem to be making it work and I appreciate having Zoom as well.

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I really appreciated the one-hour packages...I am at work, so kind of like squeezing this in between kids. But an hour, I can do. There were some times I just kind of muted, went off-screen, took care of kids, came back.

I do like having the session materials ready ahead of time. They're usually ready that day before the program starts, and I can print them off. And then, if I do get called away, I mean, it just makes it easier to take notes. I'm a note taker. I love having that down and I can just jot it, write down if I have something to say right beside the presenter's information.

I like the format and I liked the information. I like the opportunity to be able to go back and review it, to watch it again. That's important to me.

► Improvement Opportunities

Technology challenges and enhanced community-building and engagement through an exchange of participant contact information and greater participant use of cameras during live ECHO sessions were among the few suggestions for improvement.

...this was my first one navigating the Children's website and I am not very good with computers and so I did have a little bit of trouble the first and second session getting in, getting the information, and getting my certificate. Once I got it all figured out and in my brain, then it was much easier for me.

ECHO Impacts and Outcomes

Asked to reflect on the impacts and outcomes of SDOH ECHO, participants noted improvements in self-awareness regarding SDOHs and how SDOHs affect the students and families in their communities. Several school nurses also reported implementing new strategies (eg, closer monitoring of absenteeism through an SDOH lens; considering hunger as a possible cause for students' early morning stomachaches) and programming based on ECHO learnings. A subset of participants extended ECHO's reach by sharing program-related knowledge and resources with school and district colleagues.

► Professional Knowledge, Awareness, and Skill Development

I feel like maybe I'm a little bit more culturally sensitive. We have a large Native population, and I've lived around here my whole life, and so I feel like I know a lot. But then, at the same time, there's things that I've learned that I should have known, just being in the proximity, but I didn't. So different cultures – the one on culture and the barriers – sometimes just men taking care of women or vice versa is a huge no-no. And people coming in might not know that. Kids, it's way different, but. What if you call Dad and say, "Hey, I did this to your kid," he might not be all right with that. So the language and cultural barriers is a huge issue and it's very sensitive, but I feel like after watching that one, I've maybe honed in my own sensitivity a little bit better.

I think when you attend a program like this or the ECHO programs, it helps you think in a different lens as well. I sit on the attendance team, and it seems like we're punitive. But one of the things really stuck to me, celebrate when kids do come to school. And so I've really been trying to-- even when kids are late for their medication, I just really try to say, "I'm so glad you're here today," and just, it's not their fault. So I try to remember that and just remember every different lens.

► Student Care – Management, Strategies, and Programs

I've started looking at people's absenteeism rates. They come in. It's the same person every day. Maybe I will look at their grades, right, and be like, "Whew, can you really miss another gym class?" And probably we're not supposed to be doing stuff like that, but in my way, it's one way to understand how that kid is feeling and how that kid is-- if we never looked, we wouldn't know if it was, is he trying to get out for a certain reason. But then, you can't just look at their grades. Right? If they haven't been to school and you can see that they've missed 22 days of school, then you might be able to ask your student like, "Hey, is everything okay at home?" I know I asked one kid in the last two weeks, "Do you feel safe in your house?" So it's just kind of peeling back the layers as to why a student might be in your office for reasons other than a Band-Aid or an ice pack...

We have a student who would get off the bus and he would have behaviors as soon as he got to school. Well, the more I got to thinking about it after participating in the nutrition session, he's got almost a 50-minute bus ride first thing in the morning. And that really got me to thinking about his

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home life and getting on the bus, coming all the way up here. A child with special education, who's on the bus for that long. And we decided, after really looking at it, that probably if we provided him a snack on the bus, that he might do better once he got to school. And that's exactly what it was, he was tired and bored of sitting on the bus for 50 minutes and giving him a snack not only gave him some nutrition but also helped to deter some of that boredom of the ride.

...especially in my Title 1 schools, I have a lot of kids with sleep issues. I know there's a lot of instances of single-parent homes, so the kids go home after school; parents who may be shift workers, so the kids are on their own after school, sometimes even to get themselves to bed in the evening, which I'm sure is at late times. I don't know exactly what they're eating for that evening meal or if they're eating. Maybe they're only having breakfast and lunch at school. So there's a lot of avenues down that route that I can follow up on for sure.

I really want to work on making the health office more culturally diverse. I just hadn't done that yet or known where to get all the resources in order to do that. This year with COVID and everything else, it hasn't been the best time to get to all of that. But that is definitely on my summer to-do lists and at the beginning of next year to do whatever I can't get done this summer.

I'd say one thing I have changed is we do health histories when students are being evaluated for special education services. Before, I didn't ask about a lot of those questions about social determinants. Do you have issues with transportation? I mean, you think you may know that "Yes, I have seen this mom take the bus before to the school to pick up her kids," but I need to get further into that and make sure she has the resources to then make it to the doctor's office and so on and so forth. So it's actually asking those questions, and it doesn't have to be in a health history. It could be just when you're meeting a family. It's okay to ask those questions.

...it's been eye opening to me to further research in my district, like "Hey, what are we doing for this?" and it makes me feel better knowing that we are doing what we can right now to take care of them and make sure that they feel safe and comfortable coming to our school district. And then if I see the kiddos in my office and I know, hey, mom works three jobs and there's no dad and they can't go anywhere, not that I don't spend time with the other kiddos as much but I give them a little more time. I really look and see what the issue is. If there's something I can solve at school I will try and take care of it. If not, when I call mom or email or leave the message I

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say, "If there's anything you want me to do or if there's anything you want me to do or anything I can do please let me know,"

I think we've had a handful of kids that have been chronically absent and just checking with their families, what is going on. One family mom didn't have the money to fix the car. They weren't able to get to the bus. Just a lot of some of those things. Just being aware and trying to help the family problem solve so their kids can be in school.

I think it was in the last session that they talked about creating opportunities for children to learn -- different types of opportunities and have to take into account cultural issues and everything. But they mentioned just some fun things, like practicing to run a marathon, not a real marathon but marking down 2 miles here until you reach 26 and doing fun things. So just getting kids engaged. So that's one of the things I'm going to be looking at. I'm also looking at reading more books that deal with social differences of health and just getting more into the topic...Doing fun things with kids, and that is in the context of building relationships. Letting kids know that I'm there, I care, and that all staff are, so.

► Information Sharing

We have staff development days once a month or roughly once a month and when we get together for those, we'll talk about the ECHOs and what we talked about, and if anybody has tried any of the tips and tricks that they told us, or if they have any issues. So we do ruminate on that kind of stuff from time to time.

We have other nurses in our team district that have been on this before and we'll chat back and forth when something comes that we both agree on or she'll even bring up like, "Hey, this happened to me today." An extra non-case study for the rest of us or a case study between the two of us and she'll ask me, "What do you think about this?" It's nice to have other people participate.

We actually have several paras [paraprofessionals] at our school that are going through college and getting their teaching certificate. And so I shared quite a bit with them because I knew that they were in the process of doing papers and projects for school. And I shared some of the resources and the references with them to say, "You know this might be something that you want to take a look at if you're going to become a teacher. This will be good information for you."

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I've shared the emails. So they come to me, and then I pass them on to the other two nurses I work with.

I share the opportunity for the ECHO with-- I have three school nurse mentees under me that I've been working with this year. So whenever they came up, I made sure I shared it with the three nurse-- my mentees.

Additional SDOH ECHO Comments and Feedback

Participants described unmet needs and offered recommendations for future ECHOs directed at the school nurse audience. Learners also commended the Children's ECHO program and staff team – for their dedication, for creating content specific to school nursing, and for the timeliness of SDOH ECHO.

► Unmet Needs

Several participants remarked that not all SDOH topics were equally relevant to the age of students in their school setting and suggested that future ECHOs target content to specific ages. Participants sought additional ECHO learning opportunities on the topics of student mental health and the new NE health education standards.

It's a great question. I think that there are a lot of issues that span all age groups. But there are definitely ones that maybe start in middle school and go into high school that are affected a little bit differently. Especially body image issues, mental health. Yes, mental health is big in all ages but it really becomes an issue when you're dealing with mental health and social media. Just how coronavirus has changed that a lot. This year has been a really hard one for a lot of kids for mental health. But does it affect the elementary school students the same way? Probably not. So would it be a good series going forward? Yeah. Absolutely, so.

If you were to do mental health, you could break it down into elementary, middle school, and high school. Or you could just say, "All right. This week, it's going to be on difficulties that high school kids are facing that maybe elementaries wouldn't even have an issue with." Like Teens in the Driver

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Seat. The drinking and driving. The texting and driving. That could take up a lot of time right there of maybe resources that we could get out.

I think that something perhaps would be a good topic for another ECHO is depending upon what happens with the new Nebraska health education standards. Those standards have come out. I don't know if any of you have seen them. They have some very unique and very controversial standards that they have come out with. And if we're going to continue to address some of these things, I think it would be helpful to give us a chance to learn more about them. And going back to some of that cultural, social determinants, we're going to need some help with these new standards.

I think it'd be kind of nice to do, if there were whatever the number of sessions in, is have each session really focus on an age group. So let's say your work primarily Head Start, preschool, kind of that's the one you're most interested in. Instead of a little bit of that over multiple sessions, really focus there. That might be a nice approach for a lot of people.

In this and previous school nursing-directed ECHOs, participants also sought guidance on how to convey their value and role within their school and district communities and suggested that Children's could contribute to elevating the value of school nursing.

We have so many resources in our school, right? Every kid has a social-emotional guidance counselor and then an academic guidance counselor. We have an in-house Social Worker. We have a lot of people and a lot of moving things. And sometimes even though I see the same kids, I don't know the background of them. So maybe like a little snippet of what is the best way because I've broached multiple times, like, "Hi, can I have the information? Can I be part of the team?" And they kind of changed it up a little bit. But how is a nurse - I don't know - to get in there and get that information? I don't know. It might be FERPA protected, but again, I think I'm a little bit different scenario than a lot of people because I'm not an employee of the school. So they not only look at me as not a teacher, I'm not even an employee. So it doesn't come readily. So it's just a little like who you might want to start with or can someone on the external portion, someone external just help me out with that, reach the school and be like, "Hi, you really need to share this information with your nurses"? Maybe that's it. Maybe some education for the superintendent or for the school on why it's important that the school nurse knows this, that comes from a resource like Children's. Maybe that's a better way to put that.

► Praise for the Children's ECHO Program and Staff Team

I thoroughly enjoyed all the ECHO presentations throughout the last couple of years that I've attended and I just wanted to say thanks to Children's Hospital for providing these and free of charge at that, and to get one CEU each time we attend, that's awesome!

I'm glad to have the opportunity to out-of-state nurses to attend because there's nothing like this that I have found in Iowa. And so I really appreciate being included. I think it's all been wonderful information. So thank you.

Kim [McClintick] does a tremendous job. She's been a gift to school nursing. That's for sure!

...with COVID and everything else, this has been nice. It's very concise, good information, and I can kind of pick and choose the things I wanted to participate in...And it was directed at school nurses...because a lot of our other trainings that I had to go to, it's nursing, to get my CEUs.

I think it was very appropriate in where our society is right now, to really make us recognize that these social determinants of health affect so much of what is going on in our society right now.

...before what has happened in society in the last few years, we wouldn't have – at least, personally, I wouldn't have looked at this as much or recognized it in the school. But because of what is going on outside of school and in the world and in the United States – that made me open my eyes even more and be like, "Oh my gosh, I need to educate myself more on this. I need to be more empathetic and just learn more about that."

I've always been, I thought, empathetic with my students, and I really care about them, but I really didn't realize how different me being a White, middle-class American differed from what they went through on a day-to-day basis. And it kind of broke my heart a little more.