discover HEALTH
Descubre la Salud

A cross-site analysis of the
Discover Health exhibit, programming, and partnerships

(Summative evaluation report 1 of 2)

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Knight Williams Inc.

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Introduction

Discover Health/Descubre la Salud (*Discover Health*) is a bilingual English/Spanish informal health education project funded by the Science Education Partnership Award (SEPA) program at the National Institutes of Health (NIH). The project represents a partnership between the Colorado Area Health Education Center (COAHEC) at the Anschutz Medical Campus in Denver, the STAR Library Network (STAR Net) managed by the Space Science Institute's National Center for Interactive Learning, and the Latin American Center for Arts, Science and Education (CLACE).[1]

The project's main deliverables include an interactive library exhibit supported by community education programs and resources, designed to engage library patrons within the state of Colorado to learn about key public health issues in these communities related to cardiovascular health, diabetes, and obesity. The project is also designed to engage underserved Hispanic and rural communities with the exhibit and programming, and to encourage youth from these communities to pursue careers in health care professions.

Image 1. Example of material used to promote the project

Evaluation overview

As a condition of the project's NIH funding, *Discover Health* also included an external evaluation conducted by an independent evaluation firm, Knight Williams Inc., which specializes in the development and evaluation of health and science multimedia and outreach projects targeting diverse audiences. The overall goal of the evaluation was to assess the impact of the *Discover Health* library exhibit and related community programming on library patrons and the effectiveness of the library and AHEC partnerships that facilitated project implementation at each site.

This summative evaluation report presents the reporting information and feedback provided by the library partners and Area Health Education Center (AHEC) partners who collaborated to host the exhibit and implement programming at the 10 participating libraries. Their feedback was gathered in four areas: the *Discover Health* exhibit, the *Discover Health* programming, the library-AHEC partnership model, and the partners' overall project experience. The summative evaluation also included a case study of the exhibit at the final library site presented in a second summative report: Knight Williams Inc. (2020). A case study of the *Discover Health* exhibit at one library site (Summative evaluation report 2 of 2).

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[1] *STAR Net* is a production of the Space Science Institute's National Center for Interactive Learning (NCIL) in collaboration with the American Library Association, the Lunar and Planetary Institute, and the Afterschool Alliance. Major funding is provided by the National Science Foundation, NASA, and the National Institutes of Health (SEPA). *STAR Net* focuses on helping library professionals build their STEM skills by providing "science-technology activities and resources" (STAR) and training to use those resources. *STAR Net* includes a STEM Activity Clearinghouse, blogs, a webinar series, workshops at conferences, and a monthly e-newsletter. Partners include the American Library Association, Association of Rural and Small Libraries, Collaborative Summer Library Program, Chief Officers of State Library Agencies, Afterschool Alliance, Lunar and Planetary Institute, Area Health Education Centers, and others.

Background

As illustrated in Image 2, the centerpiece of the *Discover Health* project is an 800 square-foot exhibit that is divided into three main areas: Introductory/ Overview, Body Works, and Healthy Choices/Healthy Living. The exhibit includes a variety of interactive multimedia experiences, ranging from computer-based activities to a larger scale heart model and other hands-on activities.

Library partner sites

Location and timeline. As shown in Image 3, the exhibit was hosted at 10 libraries around Colorado in the following locations: Sterling, Evans, Aurora, Pueblo, Alamosa, Cortez, Grand Junction, Delta, Rifle, and Colorado Springs.

Image 3. *Discover Health* library partner locations

Table 1 shows that the tour period spanned 35 months, from January 2017 to November 2019.

Table 1. *Discover Health* library locations and exhibit tour dates		
Library	**Location**	**Tour dates**
a. Sterling	Sterling	Jan - Mar 2017
b. Riverside	Evans	Apr - Jun 2017
c. Aurora	Aurora	July - Sep 2017
d. Pueblo	Pueblo	Oct - Dec 2017
e. Alamosa	Alamosa	Jan - Mar 2018
f. Cortez	Cortez	Apr - Jun 2018
g. Mesa	Grand Junction	July - Sep 2018
h. Delta	Delta	Oct - Dec 2018
i. Rifle	Rifle	Jan - Mar 2019
j. Penrose	Colorado Springs	Sep - Nov 2019

Exhibition

The 800 square-foot exhibition is divided into three areas: Introductory/Overview (5 pieces), Body Works (8 sections), and Healthy Choices/Healthy Living (6 sections). It includes a variety of interactive multimedia experiences, ranging from straightforward computer-based activities (Check it Out; health quiz; health reporter; Hollywood Fact or Fiction; and interviews of rural healthcare professionals) to a larger scale heart model and other hands-on activities.

Oral health, organ system puzzles, and cardiovascular health.

Health quiz kiosk.

Cardiovascular and heart health.

Human anatomy puzzle.

Image 2. *Discover Health* exhibit components (borrowed from 2017 SEPA annual meeting poster)

Expectations. Early in the project development phase, the project team envisioned that the library partners would fulfill the activities described in the logic model shown in Image 4. The evaluation addressed the extent to which partners assessed that these activities were realized.
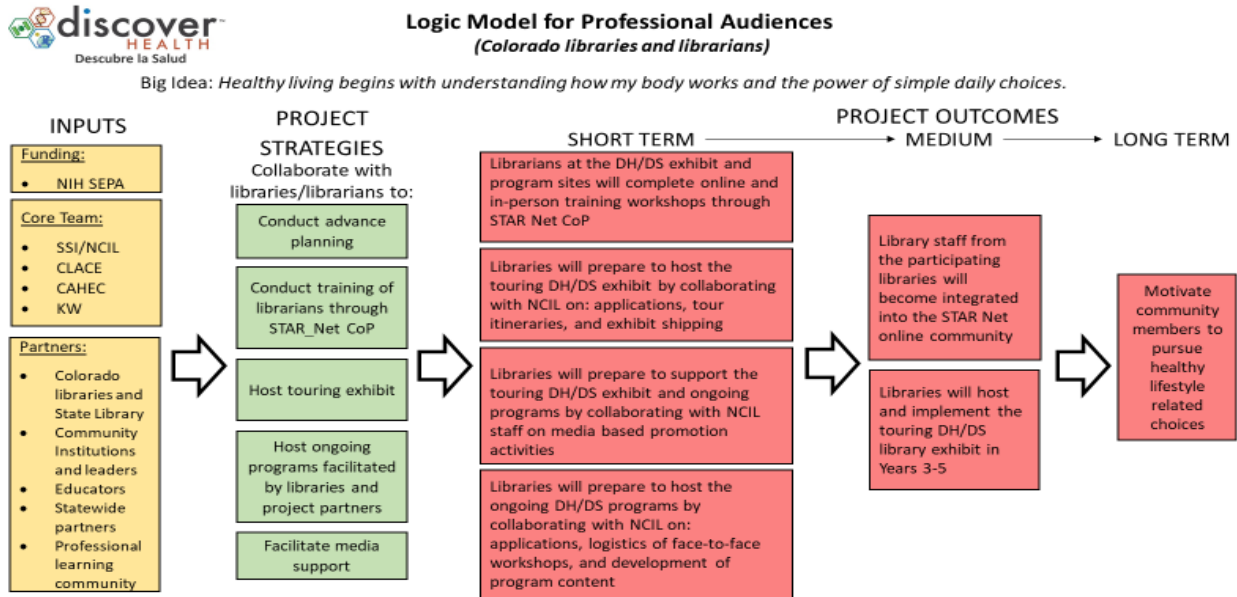
Image 4: *Discover Health* logic model for library partners

AHEC partner sites

Location. In addition to the 10 library partners, the project also featured six AHEC partners that service residents in the same regions as the 10 participating libraries. Image 5 shows the location of the 6 participating AHEC center partners.[2]
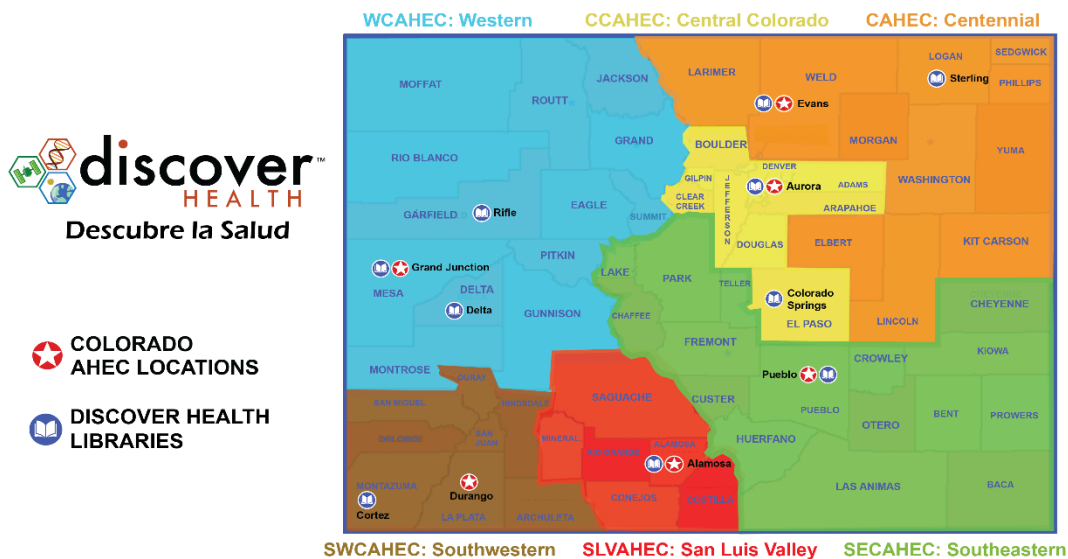
Image 5. *Discover Health* AHEC partner locations

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[2] The COAHEC system was established in 1977 and is divided into six regions (Centennial, Central, San Luis Valley, Southeastern Colorado, Southwestern Colorado and Western Colorado) with an AHEC office in each region.

Expectations. The COAHEC system works to build state-wide network capacity and strengthen academic community linkages in four core mission areas: 1) Health Careers and Workforce Diversity, 2) Health Professions Student Education, 3) Health Professions Continuing Education, and 4) Public Health and Community Education. Related to *Discover Health*, the project team envisioned that the AHEC partners would fulfill the activities described in the logic model shown in Image 6. The evaluation addressed the extent to which partners assessed that these activities were realized.
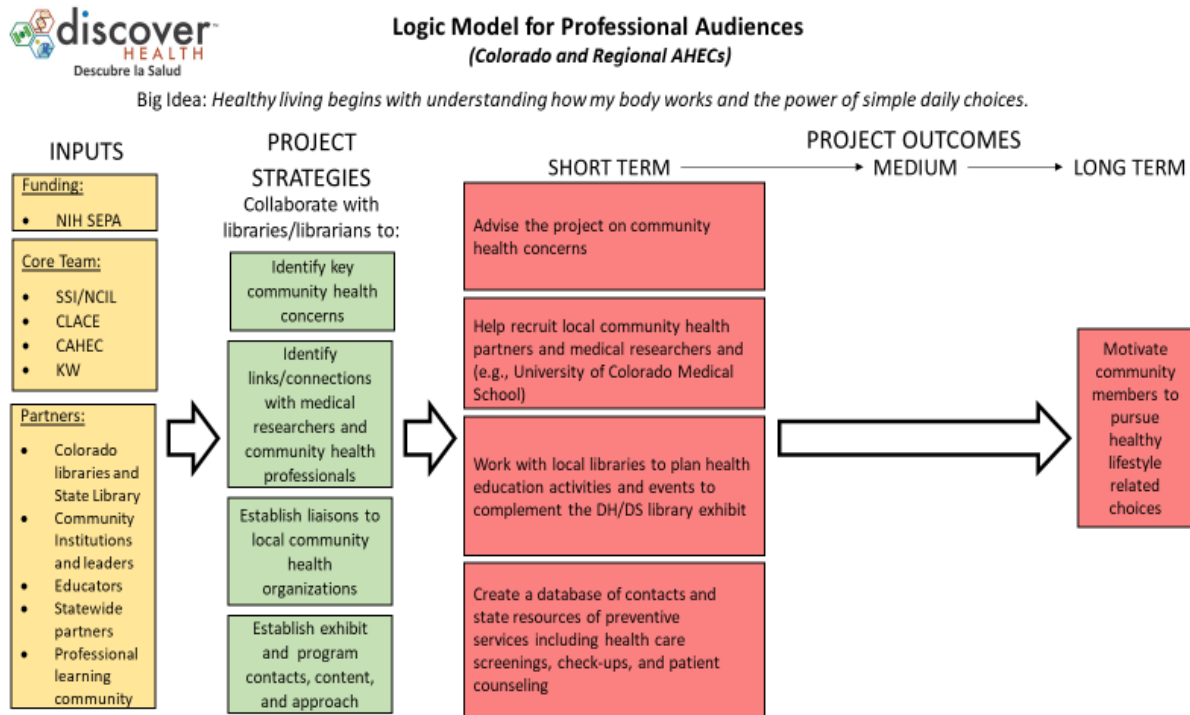
Image 6. *Discover Health* logic model for AHEC partners

Partner training

During the planning and early implementation phase, the project team hosted a two-day training workshop in Brighton, Colorado in 2016 for participating library and AHEC partners. The training covered a wide range of topics relating to the nature of library-AHEC partnerships, the planned exhibit components and related programming, the proposed media strategies, and the project evaluation plan. To accommodate all of the partners, the project provided an additional training in Aurora in 2017. The project team also conducted an abbreviated training workshop in Colorado Springs in 2019, as the Penrose library was not one of the original project partners and, thus, didn't attend one of the earlier trainings.

Image 7. Library and AHEC partners at the 2016 training workshop

Among the library partners, six attended the training workshop in Brighton in 2016, four went to the training workshop in Aurora in July 2017, and one participated in the abbreviated training in August 2019. One of the libraries sent staff to both the Brighton and Aurora trainings.

Among the AHEC partners, eight attended the training workshop in Brighton, three went to the training workshop in Aurora, and one participated in the abbreviated training in Colorado Springs. Two of the AHEC partners sent staff to both the Brighton and Aurora trainings.

Image 8. Library and AHEC partners at the 2019 training workshop

An evaluation report of the Brighton training workshop was prepared and submitted to the evaluation team prior to the Aurora workshop, to help inform final planning.[3]

Methods

The evaluation team gathered paper reporting forms and surveys from a total of 20 partners, comprising the 10 library and 10 AHEC partners (from the six AHEC regions shown in Image 5), within a month of their finishing their exhibit tour. The team also conducted follow-up interviews with six library and five AHEC partners approximately six months after each site completed its *Discover Health* tour. This report also considers the experiences of adult library patrons who participated in a *Discover Health* program and completed a brief paper survey at the end of the event. These findings are presented in Appendix 1 and are incorporated, where applicable, in the Discussion section, along with the library and AHEC partners' feedback.

Basic descriptive statistics were performed on the quantitative data generated from the evaluation. Frequencies, medians, and means are reported in the text, as appropriate. Content analyses were performed on the qualitative data generated in the open-ended questions. The analysis was both deductive, drawing on the project's goals and objectives, and inductive, looking for overall themes, keywords, and key phrases. All illustrative quotes presented in the findings have been lightly edited to correct spelling and improve readability.

Findings

Based on the library and AHEC partners' reporting, reflection surveys, and follow-up interviews, the evaluation findings are presented in four parts:

- Part 1 focuses on the *Discover Health* exhibit;
- Part 2 on the *Discover Health* programming;
- Part 3 on the *Discover Health* library-AHEC partnership; and
- Part 4 on both partners' experience with the *Discover Health* project as a whole.

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[3] Knight Williams Inc. (2017). Evaluation of the *Discover Health* partner training workshop.

Part 1. *Discover Health* exhibit

1.1 Exhibit visitor estimates and audiences

1.1a Exhibit visitor estimates

Library partners consistently used door or gate counts to estimate the number of patrons who visited their library. To estimate the number of visitors to the *Discover Health* exhibit, they typically relied on staff or volunteer tracking and extrapolation methods. Table 2 presents each library partner's approach to estimating exhibit visitor counts.

Total exhibit visitor estimate. Based on estimates provided by nine of the 10 libraries, nearly 400,000 people visited the exhibit during the 35-month tour period between January 2017 and November 2019.[4]

Exhibit visitor estimates by library. Listed in order of the exhibit tour, Figure 1 shows each library partners' estimates of the percentage of patrons who visited the exhibit compared to the total number of patrons who visited their library during their three-month tour period. The estimates ranged from a low of 4% at Cortez to a high of 100% at Aurora and Mesa.

Figure 1. Estimated percentages of patrons who visited vs. didn't visit exhibit (n=9)

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[4] This estimated tally does not include patrons who visited the exhibit during the three months *Discover Health* was at the Alamosa library. The Alamosa library partner estimated their site was visited by 22,010 patrons during this period, but reported having, "*no way of determining the number of people that viewed the exhibit.*"

Table 3 shows a breakdown of the estimates presented in Figure 1. Out of the 633,742 patrons who visited the nine libraries during the exhibit tour period, 397,140 visited the exhibit, or about two out of three patrons. Note that, given the library partners' methods of estimating the numbers of patrons and exhibit visitors, these totals likely do not represent unique patrons or exhibit visitors per site.

1.1b Exhibit audiences

The library partners reported that their exhibit visitors generally included families, school groups, and homeschool groups, as follows.

Table 3. Breakdown of the estimated library patrons and exhibit visitors, by library (n=9)

Library	Number of patrons	Number of exhibit visitors
Sterling	8,567	3,426
Riverside	39,970	7,993
Aurora	121,708	121,708
Pueblo	64,323	23,380
Cortez	50,029	2,000
Mesa	189,396	189,396
Delta	17,793	14,235
Rifle	18,706	4,190
Penrose	123,250	30,812
Total	**633,742**	**397,140**
Mean	**70,416**	**44,127**
Median	**50,029**	**14,235**

Families. Seven library partners indicated that family groups were one of their primary audiences for the exhibit, as in, "*We found the primary audience for this exhibit to be families (children and their parents or caregivers)*" and "*We had a large number of kids interested in playing with the interactive pieces and computer pieces. They, in turn, brought attention to the exhibit to their parents.*" Among the remaining library partners, two said they primarily reached out to school groups, and one explained that they saw "*individuals of all backgrounds and ages*" visiting the exhibit.

School groups. Seven libraries recruited school groups to see the exhibit by working directly with teachers, principals, and school districts through emails, flyers, and word of mouth, among other recruitment strategies. Six of these libraries reporting hosting school groups to view the exhibit, and while most hosted fewer than eight classes, the number ranged from a low of one to a high of 56 classes. The site hosting 56 classes described presenting "*at multiple principal's meetings and school staff meetings*" and working closely with the school district's health and wellness coordinator to plan field trips to the exhibit for "*2nd and 6th graders countywide.*"

The three libraries that didn't recruit K-12 school groups cited budget issues, explained that they hosted *Discover Health* during the summer, and said they shared "*some…marketing information*" with middle and high schoolers but could have done more to reach these and younger youth, respectively.

Homeschool patrons. Among the seven libraries to provide an estimate, the number of homeschool patrons (including children and adults) that visited the exhibit ranged from a low of 9 to a high of 85, averaging approximately 30 per site. Based on these site counts, a total of 207 homeschool patrons are estimated to have visited the exhibit during the 35-month exhibit period. The three remaining library partners said they did not know if homeschool patrons visited the exhibit.

1.2 Promotional efforts to encourage exhibit attendance

All 10 library partners described working with local media outlets to promote the *Discover Health* exhibit. The libraries also relied on local marketing strategies, including school outreach, paid advertising, street banners, e-blasts, flyers, and/or social media marketing, generally targeting adults as well as school-aged youth.

1.2a Efforts to engage Spanish-speaking patrons

All 10 library partners reported that they encouraged Spanish-speaking patrons to view the exhibit. These efforts included connecting with school districts, non-profit organizations, churches, and Social Services; creating Spanish-language flyers and exhibit guides; and promoting the exhibit through Spanish-language media, specifically the television station Telemundo, which promoted the exhibit at three sites. Six library partners felt these efforts were successful, for example noting they had observed "*a diverse representation of families*" viewing the exhibit. However, the remaining four library partners indicated that they did not see the response from Spanish-speaking exhibit visitors they had hoped for and/or explained that this was an area where their library "*always struggles.*" One library partner went on to explain that "*One of the hard issues is that we cannot even get feedback … as to why the lack of participation and interest,*" while another added, "*It may have been helpful to have had some guidance on other ways to reach out to those communities outside of the library, or it may just be that this population would have been better reached at another library location.*"

Image 9. Family members visiting the *Discover Health* exhibit

Although some of the library partners thought they could have done more to encourage Spanish-speaking patrons to view the *Discover Health* exhibit, all but one thought their patrons found the bilingual English-Spanish panels helpful, as in, "*our patrons who speak only Spanish, or who are bilingual, may have felt gratitude to being included in the display*" and "*We got many comments about how helpful the Spanish was in understanding what the panel topics were, and it was also fun to listen to Spanish-speaking mothers teach their little ones the Spanish and English terms.*" The remaining library partner explained that, because they didn't observe Spanish-speaking patrons engage with the exhibit, the bilingual panels hadn't been helpful at their site.

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1.3 What library partners thought to be the most and least valuable aspects of the exhibit

1.3a Most valuable aspects of the exhibit

The library partners most often found the hands-on, bilingual, and/or educational opportunities to be the most valuable aspects for their patrons. Specifically:

Image 10. Students visiting the *Discover Health* exhibit

- Six library partners praised the hands-on features or displays, as in, "*The interactive pieces (giant heart, torso model, brain model) garnered the most attention overall. We felt that they drew new patrons in continually, and also saw a lot of repeat visits from the same patrons.*"

- Three library partners appreciated the bilingual displays in English and Spanish, with one elaborating, "*It is extremely important for us to be able to offer high-quality resources to our Spanish-speaking populations, and we noticed that the displays stimulated conversations and discussions among both English and Spanish-speaking groups.*"

- Three library partners pointed to the educational opportunities presented by the exhibit, as in, "*That we had a museum quality exhibit at the library that they had access to, this is something that they would have had to drive to Denver to take part in*" and "*Bringing to the attention of our community members - issues of health and lifestyle. Presenting the information in an engaging way and directed to an often-overlooked demographic.*"

1.3b Least valuable aspects of the exhibit

Although two library partners said there was nothing they found least valuable for their patrons, eight pointed to specific displays or exhibit pieces. Specifically:

- Five library partners found the "*electronic media elements*" like the kiosks and/or green screen display least valuable. In this group, four commented on technical problems with the materials (as in, "*Computer components crash and do not respond continuously*" and "*We had inoperable exhibit pieces from the beginning of the exhibit; and then a few weeks into the exhibit, the green screen went down and other computer pieces worked intermittently. Where is the value in that?*"), while two reported that their patrons weren't as interested in these displays as they expected.

- Four library partners pointed to four separate aspects of the exhibit as being least valuable: the healthy mouth display (which, at this site, was not set up near the toothbrushing model), the panels about health careers and people's goals (both of which did not see much use at their respective libraries), and the overall scale of the exhibit (with this library partner explaining that "*the size of the exhibit is designed for large spaces, so it was not at all practical for small, rural communities*").

1.4 How library partners thought the exhibit influenced patrons

1.4a How well-received the exhibit was among patrons

As shown in Figure 2, all but one library partner agreed or strongly agreed that the exhibit was well-received by patrons.

Figure 2. Extent to which library partners agreed or disagreed that the exhibit was well-received among patrons (n=10)							
Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
0%	0%	0%	0%	0%	10%	30%	60%
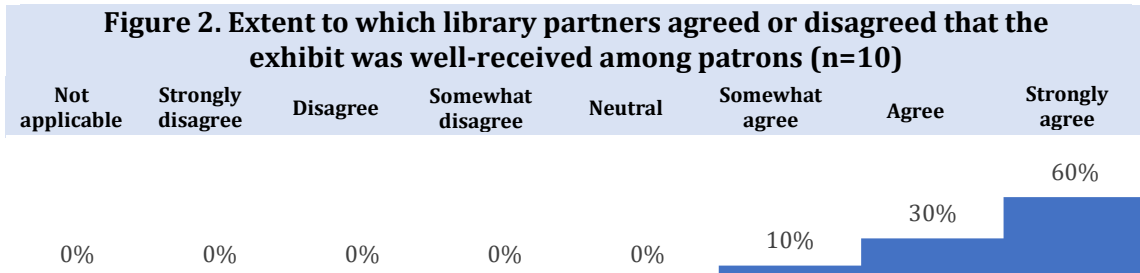
Commenting on their patrons' positive experience with the exhibit, one library partner said, "*We saw people interacting with exhibit items on their own, but we also noticed that it encouraged family interaction, particularly the kiosk quizzes and models.*" Echoing this response, another partner noted the exhibit was well-received by their patrons as well as their library organization, citing the quality of the pieces and the bilingual elements, as in, "*Our entire organization … had a great experience with this exhibit, and we have heard nothing but positive feedback and anecdotes about their experiences, patron feedback, and observed patron experiences. We were very impressed at the level of quality built into the pieces, and we were especially pleased with the intention to include Spanish-speaking populations.*"

1.4b How the exhibit was observed to impact patrons

As the library partners had the most direct knowledge of patrons' experience with the exhibit, they were asked to describe in their own words how the exhibit impacted patrons. They most often observed that the exhibit increased patrons' health learning and engagement, that it provided an opportunity for families to interact around the displays, and/or that it was well-received by Spanish-speaking patrons. Specifically:

- All 10 library partners felt the exhibit impacted their patrons' learning and engagement around the topics of health and healthy living, as in, "*Brought into focus key health issues facing a large segment of our community as we do have a very diverse population,*" "*We noticed many of our patrons returning to the exhibit … with intentions to learn more. People were amazed to see actual specimens of the liver, lungs, and brain,*" and "*Overall, the exhibit definitely made patrons stop and reflect on health and habits.*" This last library partner went on to

Images 11-13. Families and students visiting the *Discover Health* exhibit

add*, "We feel that the exhibit deepened patrons' knowledge of health and that nearly every person who interacted with the exhibit was able to learn something new from it.*"

- Six library partners commented on how the exhibit encouraged conversations and learning among family members, as in, "*Families were excited to take part in this exhibit and learn together*" and "*It provided a great time for parents to interact with their children on health topics. Particularly the lungs provided a way for parents to talk about those who smoke in the family and the damage it causes.*" One library partner observed that exhibit conversations also took place between patrons and library staff, noting *"The exhibit seemed to spark conversations between patrons and staff where patrons shared their own health concerns and experiences."*

- Three library partners noted that the exhibit specifically impacted their Spanish-speaking patrons, who were "*surprised and happy to see that the panels were available in Spanish*" and who, at one site, "*had never visited the library previously."*

1.4c Whether the exhibit impacted patrons as the project envisioned

As shown in Figure 3, most library partners thought the exhibit impacted patrons in ways envisioned by the *Discover Health* project, at least to some extent.[5] All 10 library partners assessed that the exhibit increased patrons' interest in and knowledge of their bodies and how to keep them healthy to some or a considerable extent. Eight library partners thought that the exhibit engaged patrons to participate in their *Discover Health* programs to some or a considerable extent (and one thought it did so to a great extent), and seven thought it engaged them to check out books or media set up near the exhibit to some or a considerable extent.

Figure 3. Extent to which library partners thought the exhibit impacted patrons in ways envisioned by the *Discover Health* project (n=10)

To what extent did the *Discover Health* exhibit:	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
increase patrons' interest in their bodies and how to keep them healthy	0%	0%	0%	60%	40%	0%
increase patrons' knowledge of their bodies and how to keep them healthy	0%	0%	0%	50%	50%	0%
engage patrons to participate in your *Discover Health* programs	0%	0%	10%	50%	30%	10%
engage patrons to check out books or media set up near the exhibit	0%	0%	30%	40%	30%	0%
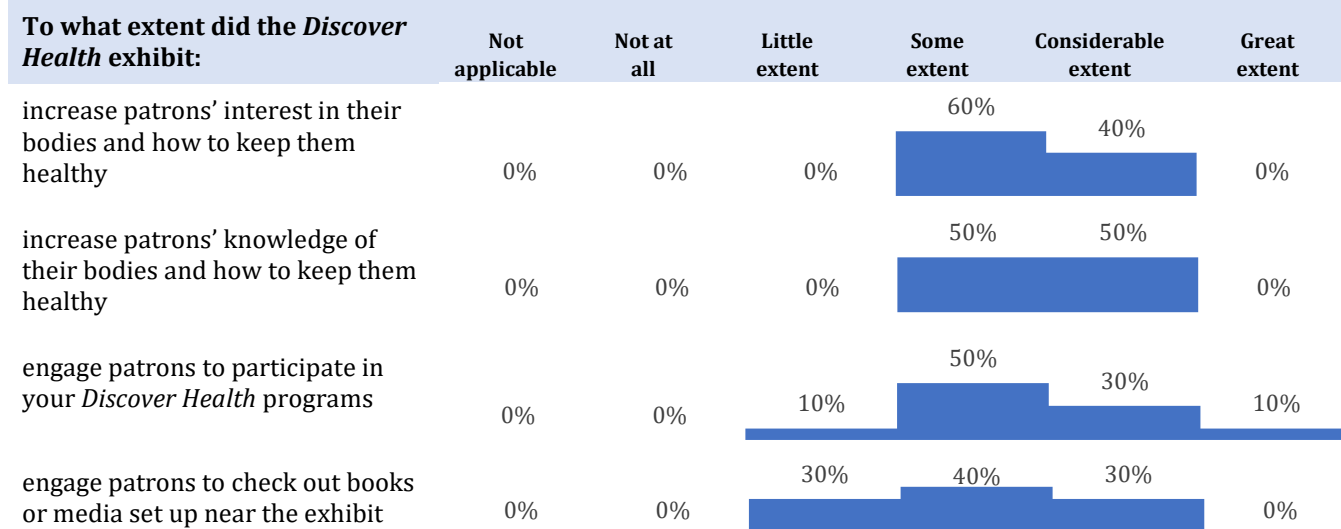
[5] When asked similar questions about patrons' interest and knowledge of their bodies/how to keep them healthy and patrons' participation in health-related activities at their libraries, the six library partners who completed the follow up interview still generally held the same opinions.

A few library partners elaborated on their ratings relating to patrons checking out books, as follows:

➢ *We did not see large fluctuations in circulation or program attendance, so we did not find correlations between the exhibit and overall increases in library participation.*
➢ *Our patrons don't check out a lot of books in general (they primarily check out videos). We did see an increase in checkouts of health-related materials.*
➢ *It brought awareness and health knowledge but there was a gap in resource access for implementing changes.*
➢ *We ordered children's books both in English and Spanish about the human body and were available for checkout. Children enjoyed the pop-up illustrations type of books.*

1.4d Library circulation changes in exhibit-related topics

As another metric of assessing patrons' engagement in further learning about health and healthy living, exhibit-related circulation records were collected from eight libraries for a three-month period both one year *prior to* and *during* the period each library hosted the exhibit.[6] As shown in Figure 4, at six of the eight libraries, the exhibit-related circulation numbers increased. At two libraries, however, circulation decreased, with library partners at both sites noting irregularities that may have contributed to the decrease.

Figure 4. Libraries' circulation changes in exhibit-related topics (n=8)
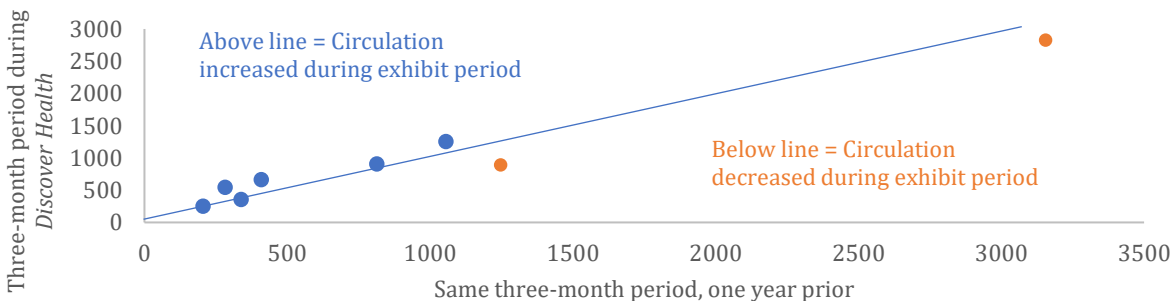
At one of the two sites that reported a decrease, the library partner noted this was consistent with overall circulation changes. They also explained that their circulation numbers did not include items catalogued as "*special format*" or "*circulated from other libraries*", and that they didn't reflect the increase in "*databases, website visits or participation in our e-resources, which are very popular formats for health-related information and articles.*" At the second site, the library partner noted that their circulation numbers were likely impacted by library closures due to weather, the removal of a "*significant portion*" of their nonfiction collection because of construction on-site, and/or patron confusion about whether health-related books on display were available for checkout. One library that saw an increase in circulation also shared a caveat, saying this could have been due to the exhibit and/or "*could also be associated with new ballot measures passed that allowed for more books to be purchased.*"

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[6] Two libraries were unable to provide circulation data. Additionally, although the first five sites were asked to share circulation numbers for specific Library of Congress numbers for health science/self-help, some shared circulation numbers for Dewey Decimal call numbers instead. Based on this feedback, the library final report form was updated for the last five sites to focus on health-related Dewey Decimal numbers.

Table 4 further details each library's exhibit-related circulation numbers during the same three-month period, here again calculated one year *prior to* and then *during* the *Discover Health* exhibit tour. Among the eight libraries that were able to provide circulation data, the percentage changes ranged from -29% to 94%. For the six sites that reported an increase in their library circulation reporting, the percentage changes ranged from 6%

Table 4. Libraries' circulation changes in exhibit-related topics over same three-month period (n=8)		
Library	One year prior	During exhibit	Percentage change
Sterling	205	252	23%
Riverside	1,056	1,256	19%
Pueblo	814	905	11%
Cortez	338	358	6%
Mesa	3,156	2,826	-10%
Delta	409	666	63%
Rifle	282	547	94%
Penrose	1,248	888	-29%

to 94%. The total circulation for these six sites went from 3,104 to 3,984, an increase of 28%.

1.5 Library partners' experience hosting the exhibit

1.5a Preparedness and comfort in hosting the exhibit

As shown in Figure 5, the majority of library partners agreed that they felt prepared to set up and take down the exhibit and host the exhibit at their library, and that they felt comfortable answering patrons' questions related to the exhibit. Meanwhile, about half of the library partners agreed that they felt prepared to use the activities and resources that accompanied the exhibit and that they found the activities and resources useful in their setting.

Figure 5. Library partners' reflections on their experience implementing the *Discover Health* exhibit (n=10)
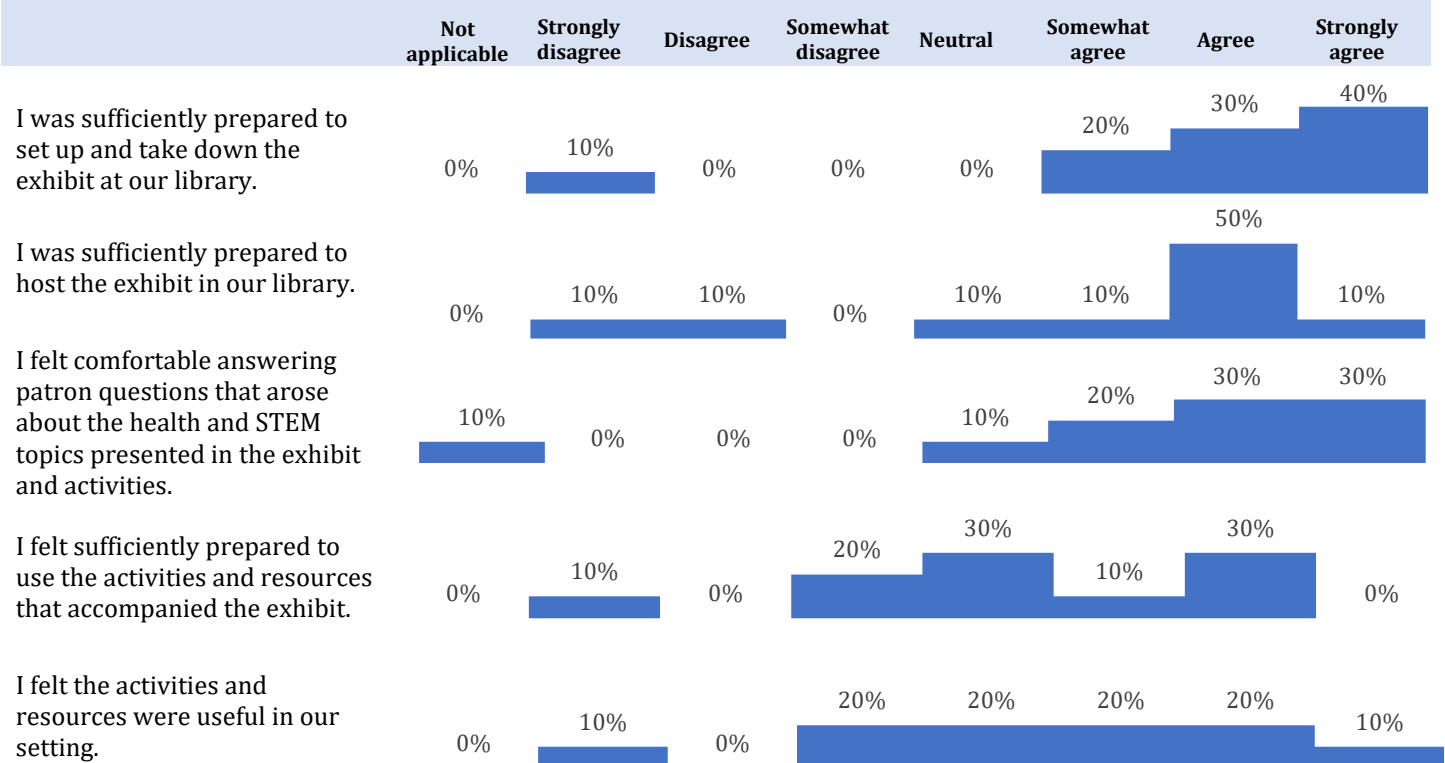
1.5b Use of the project implementation resources

Full Set up Guide. Seven library partners found the Full Set up Guide (shown in Image 14) to be at least moderately useful. One did not use the Guide, one said they did not find it useful, and one found it slightly useful. Four library partners went on to note that it would have been helpful if the Guide had included a complete list of exhibit elements, as well as dimensions for each piece, to help with their planning. If and when a site needed to set up the exhibit without on-site support from COAHEC, one library partner added that it would be helpful to have the dimensions of the shipping container and the delivery/pick-up information, so as not to "*waste valuable staff time trying to figure out what all of the 'stuff' is in the totes.*"

Requirements Binder. Seven library partners also found the Requirements Binder shown in Image 15 to be at least moderately useful, with the remaining partners finding it slightly useful. Five partners shared the following observations:

➢ *We did not encounter any specific challenges with regard to the implementation resources Some parts of the Requirements Binder were very useful (programming requirements, schedules, contacts, dimensions of displays), but we would have benefitted from an itemized inventory list with dimensions for all the additional parts of the display. As it turned out, we had help from Space Science Institute here for set-up and tear-down, so we did not have to rely on the binder as much as expected for the exhibit.*

➢ *We got the set up guide the day the exhibit arrived and the binder the day after at the training-- the tight turnaround time meant we had planned many of our programs before we had received full info. Unfortunately the rush and circumstances led us to not make full use of all of these resources. I think that many of them would have been very helpful, we just didn't have the full time to take advantage of them.*

➢ *The programming in the binder is much more complicated than is useful for children.*

University of Colorado – Discover Health

Image 14. *Discover Health* Full Set up Guide

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Image 15. *Discover Health* Requirements Binder

> *It would have been great if the binder included itemized inventory list with dimensions of all pieces (i.e.. Giant heart model, torso model, lung/liver/brain/skeleton boxes).*
> *We had a bit of a tight turnaround time and had an abbreviated training that was very close in time to the opening of the exhibit. We made it work the best we could, and the binder in particular had lots of information and resources, but some of our program planning was rushed [due to] the time circumstances and were planned using our own resources before we had the full training and picture.*

1.5c Challenges or barriers in hosting the exhibit

The main challenges or barriers library partners indicated they faced in hosting the exhibit related to staff or volunteer time or funding issues, insufficient space for the exhibit, and issues with broken electronic elements. Specifically:

- Five library partners shared issues they faced with staff or volunteers. Some in this group said they faced challenges with funding and staff time, as in, "*We did not have adequate staff coverage to host the exhibit and to operate a library. This caused a lot of strain on our personnel budget. The stipend was also not enough for small, rural libraries who have to make other sacrifices to host an exhibit of this size,*" and "*My biggest challenges came from having to tackle the entirety of the exhibit and programming by myself. My manager was not supportive and did not understand the undertaking that was needed for an exhibit like this. He felt the bare minimum was good enough. I know some things got swept under the rug because he did not want to pursue it.*" At the same time, others thought their staff or volunteers could have used additional preparation (as in, "*our staff should have supported the volunteers with training*" and "*Staff confidence in answering questions about the exhibit*").

- Three library partners thought the exhibit was too large for their space, as in, "*We did not have enough space to host the exhibit and continue offering library services to all patrons visiting our library.*"

- Two library partners said they had trouble with the computer modules or the green screens, with one adding that they had trouble getting help from COAHEC to "*fix the broken pieces.*"

- One library partner said their site didn't face any challenges or barriers in hosting the exhibit.

1.5d Suggestions for improving the exhibit

The library partners shared a few areas where they thought the exhibit might be improved, including the electronic elements, best practices in terms of engaging Spanish-speaking patrons, and the overall size or scale of the exhibit. Specifically:

- Four library partners commented on improving the electronic exhibit elements, including the tabletop interactives and the green screen, which they noted froze, crashed, or "*malfunctioned quite a bit.*" One of the library partners also noted that it would have been helpful to have "*a workable plan for replacing pieces that break,*" as they were not able to fix the broken green screen at their site.

- Two shared examples of how the exhibit might better reach Spanish-speaking library patrons, as in, "*Spanish close-caption the videos on the large video screen*" and "*More racial representation in images, models, anatomy figures--if the goal is to reach Spanish speaking populations, it's difficult when all of the figures are light-skinned. People need to see themselves represented in the displays and images to feel included.*"

- Two library partners commented on the size or scale of the exhibit. One thought the exhibit elements were too large, saying, "*If an exhibit is designed for under-served populations, of which small, rural communities would meet that requirement, then approach the design from a small, rural library's perspective. Obviously, this exhibit was designed for large libraries with lots of space. The shipping container is a perfect example. It would not fit through our door. Consequently, we had to unpack and pack the container outside on the sidewalk.*" The other said, "*It was a great exhibit but almost too much for some … A few comments were given by patrons regarding the size of the exhibit and the time you needed to get through everything.*"

- Other suggestions shared by individual library partners included simplifying the language throughout, fixing or replacing broken tabletop elements between libraries, adding an interactive to each panel, and including a display about natural remedies.

Part 2. *Discover Health* programming

2.1 Program attendance estimates

Table 5 shows the total number of *Discover Health* programs at each library site, as well as the number that were school-based, and the total attendance across all programs.

In total, the 10 libraries coordinated 240 programs, 74 of which were school-based, for 5,728 patrons. All of the library partners reported that their site held at least nine programs, with one library coordinating 88 programs, 52 of which were school-based.

Library Partner	Total number of programs	Number of school-based programs	Total attendance across all programs
Sterling	13	7	230
Riverside	27	4	342
Aurora	15	0	242
Pueblo	11	3	733
Alamosa	41	0	780
Cortez	9	4	100
Mesa	15	0	392
Delta	88	52	2,199
Rifle	12	4	284
Penrose	9	0	426
TOTAL	**240**	**74**	**5,728**

Table 5. Total programs, school-based programs, and attendance, by library site (n=10)

2.2 Promotional efforts to encourage program attendance

Each library partner described working with local newspaper, television, and/or radio contacts to promote their *Discover Health* programming, in addition to relying on marketing strategies including letters to school principals, paid advertising, e-blasts, brochures, flyers, and social media marketing, generally targeting adults as well as school-aged youth. A few of the library partners commented on how these efforts specifically seemed to affect attendance at their programming (as in, "*some of the most well attended programs were the ones that went out in the flyer to all kids in school*," and "*Facebook seems to have the greatest benefit for programs*"). One library partner explained that they weren't sure whether and how their marketing efforts affected program attendance ("*Great attendance at some programs, not so much at others … unable to discern if low attendance at some of the programs was due to lack of promotion, lack of interest, or scheduling was off for some reason*").

2.2a Targeted efforts to engage Spanish-speaking patrons

All 10 library partners described their sites' attempts to encourage Spanish-speaking patrons to attend their *Discover Health* programming. These efforts included connecting with community members, ESL groups, non-profit organizations, schools, and churches; creating Spanish-language event flyers and other materials; adapting preexisting Spanish programming at the library to fit under the *Discover Health* umbrella; and coordinating an intercultural training to provide their staff with "*tips on how to welcome and include Spanish-speaking audiences.*" Five library partners felt their efforts were successful, citing attendance and feedback from their patrons. However, the remaining five library partners did not see the hoped-for response among these patrons. One library partner also commented on where they

might have done more in this area (as in, "*I would like to see money for advertising on radio, as I believe that is a media accessed by our Spanish-speakers*").

Number of bilingual programs implemented. Six library partners indicated that their sites coordinated between one and seven bilingual or Spanish-language programs each.[7] Two of these library partners explained that attendance at these programs was low, while four commented on the importance of offering such programs, for example saying, "*programs for bilingual and Spanish-speaking audiences helps deepen engagement, strengthen communities, and creates opportunities for more programs and events for the target audience.*"

Challenges addressing language and cultural considerations. Three library partners noted they had difficulty addressing language and cultural considerations. One said they didn't have time to coordinate with local organizations "*to help bring in the Spanish population*," another thought they might have done better in this area if their staff spoke Spanish, and the third wasn't sure why their programming for Spanish-speaking patrons hadn't been more popular. In comparison, one library partner who felt they *had* been successful in this area attributed it to a range of factors, saying, "*We offer Spanish programming, have several staff who speak Spanish, and several staff who identify as Latino/a. We utilized all of these internal resources to connect Spanish-speaking audiences to the exhibit and to programs. Additionally, we have a great team of volunteer tutors who took their classes (English Language Learners) through the exhibit to explore the information in both English and in Spanish.*"

Image 17. Promotional flyers for wellness screening at Delta library

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[7] Two of the four library partners whose sites did not coordinate bilingual programs explained why they weren't able to host this kind of programming, with one saying their bilingual programmer canceled and the other explaining that no one on their staff spoke Spanish and could spearhead these events.

2.3 What library partners thought to be the most and least valuable aspects of the programming

2.3a Most valuable aspects of the programming

When asked to describe the most valuable aspects of the *Discover Health* programming for their patrons, most of the library partners pointed to the opportunity it afforded them to engage patrons in topics related to health and healthy living. Half noted the value of the partnerships the library was able to develop with organizations and individuals, a few observed that it gave their patrons access to new or updated programs at the library, and a couple pointed to their Spanish-language programming. Specifically:

Image 18. CPR program presented at Rifle library

- Seven library partners described the value of engaging their patrons on topics related to health and healthy living, as in, "*The programs got people to think about things they could change in their life to be more healthy. They realized that sometimes these changes were very small.*"

- Five library partners thought the most valuable aspect of the programming related to patrons benefiting from their library's partnerships with AHEC organizations and others who presented in their programs and were "*able to connect to members of [the programming] audiences in meaningful ways.*"

Image 19. Heart health program presented at Alamosa library

- Three library partners thought their patrons appreciated having new or updated programing at their library, including programs that were reimaged for *Discover Health*. As one library put it, "*Reimagining our programming has been a great way to revitalize our offerings.*"

- Finally, two library partners pointed to the programming activities in Spanish, as in, "*Health programming was offered at the library for … Spanish speakers.*"

Image 20. Dental health coffee hour program at Penrose library

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2.3b Least valuable aspects of the programming

While no one aspect stood out as least valuable for their patrons, a few library partners pointed to the electronic exhibit elements or a particular program. Specifically:

- Three library partners pointed to difficulties using the electronic exhibit elements in their programming, as in, "*When tried to demo the 'Journey through the body' – children and adults got impatient and would not stay to complete the program because it was not working properly.*"

- Three library partners commented on specific programs that had been less impactful than others, such as: "*Information lectures didn't engage/attract patrons as much as discussions and interactive activities*" and "*The program with the least amount of attendance was the Eat to Beat Diabetes. Perhaps this was because a dietary change within individuals with diabetes is hard to implement, unless it is a doctor's order.*"

2.4 How partners thought the programs influenced patrons

2.4a How well-received the programming was among patrons

As shown in Figure 6, all but one of the library partners at least somewhat agreed that their *Discover Health* programming was well-received by their patrons.

Figure 6. Extent to which library partners agreed or disagreed that the programming was well-received among patrons (n=10)

Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
0%	0%	0%	0%	10%	10%	20%	60%
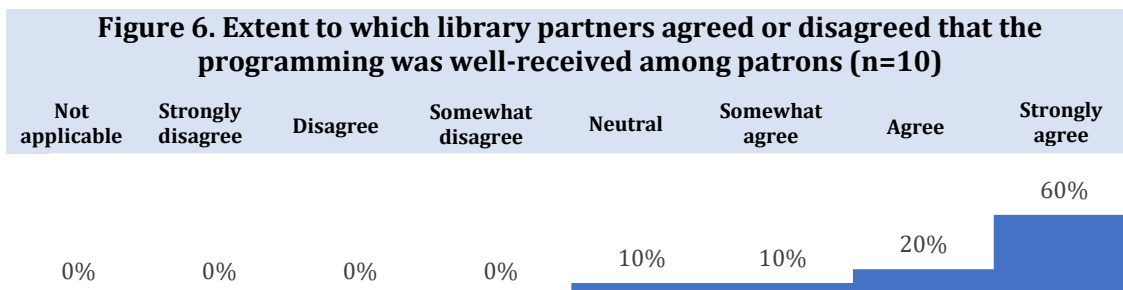
2.4b How the programming was observed to impact patrons

All 10 library partners observed that their programming positively impacted patrons' health learning or engagement. Some noted that they observed patrons asking questions related to health or health programs, others witnessed or were part of conversations about (current or future) health programming, and a few commented on their patrons having received information about healthy living. Examples of their responses are below.

- ➢ *Patrons saw the programs as an opportunity to discuss their health concerns with library staff and health professionals. Provided a sense of nostalgia for learning and a renewed sense of discovery. Many patrons commented that they haven't seen similar content since grade school.*
- ➢ *Exposed patrons of all ages to health topics and produced conversation. Patrons asked about health programs and were excited by them*

> *We received feedback and requests for more healthy programming such as the cookbook club that was started. As an outgrowth of the interest we observed in the free lunch and snack program started this year – we will also be partnering with [a local] program for health nutrition education for low income families.*
> *From exploring health related themes in Storytime to our Stuffed Animal Wellness event, we've had so many opportunities to talk about what it means to be healthy.*

Additionally, one library partner noted that their most well-attended programs were those offered on a regular basis that were adapted for *Discover Health*. As this library partner observed, "*Programs that were offered at 'unusual' times, or times when we do not normally sponsor events typically had the lowest attendance. This may suggest that patrons are accustomed to certain rhythms of programming, and are more likely to attend events if they take place at expected times/days of the week.*"

2.4c Whether the programming impacted patrons as the project envisioned

As shown in Figure 7, most of the library partners thought the exhibit impacted patrons in ways envisioned by the *Discover Health* project to some or a considerable extent, including increasing patrons' interest in and knowledge of their bodies and how to keep them healthy, and engaging them to want to learn more about their bodies and to participate in additional *Discover Health* or similar programs.

Figure 7. Extent to which library partners thought the programming impacted patrons in ways envisioned by the *Discover Health* project (n=10)

To what extent did the *Discover Health* programming:	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
increase these patrons' interest in their bodies and how to keep them healthy	0%	0%	0%	50%	30%	20%
increase these patrons' knowledge of their bodies and how to keep them healthy	0%	0%	0%	40%	50%	10%
engage these patrons to subsequently want to learn more about their bodies and healthy lifestyles	0%	0%	0%	50%	50%	0%
engage these patrons to participate in additional *Discover Health* or similar programs	10%	0%	0%	50%	40%	0%

A few library partners elaborated on their ratings, as follows:

> *Our patrons responded very positively to the programs overall. The reason row 2 received a 3-rating [of to some extent] is because most of the programs drew patrons who are already health-conscious and interested in health. It was more difficult to reach individuals who were not already somewhat interested in health. The reason row 4 received a 3-rating [of to some extent] is because we had patrons tell us that they "couldn't attend this time" but would be*

interested in specific programs if offered in the future, and it is difficult to gauge if these patrons would actually attend the program next time.

➢ *... the second question is the only one that we observed based upon the comments from students and teachers and the fact that the student visits required engagement with the exhibit. Our answers to the first and third questions are purely anecdotal.*

➢ *Knowledge is a good first step, but it may be hard to prioritize health/nutrition behavior changes when many of our patrons face food insecurity and are experiencing homelessness. Looking back, it may have been beneficial to provide more opportunities for practical action plans and resources to help patrons attain their health goals.*

2.4d The relationship between the exhibit and programming

Seven library partners described how their programs connected back to and helped reinforce patrons' experience with the exhibit. Examples of their responses are below:

➢ *Some of the presenters moved specific panels to the presentation area and referred directly to information on the panel. Some also suggested they try some of the [exhibit] activities.*

➢ *This was especially seen with the "Little Healthy Me Storytimes", as well as other storytime sessions. Staff would walk participants out to the exhibit after the storytime and it was great to see parents and children talking about healthy habits and taking part in the exhibit.*

➢ *Having the huge heart display encourage and kept folks/kids focused during discussions of heart health.*

➢ *When library staff led programs ... they made sure to refer to the exhibit directly when possible, and to remind patrons to visit the exhibit if it could not be included in the program.*

➢ *... the scavenger hunt was a key activity that engaged the students to experience the entire exhibit.*

➢ *A patron intrigued by the healthy plate kiosk asked specific nutrition questions at the Diabetes 101 and other programs*

In their follow up interviews, the library and AHEC partners commented on the relationship between the programming and the exhibit more generally. Similar to the example quotations shared above, a few partners talked about how they had included the exhibit in their programming or how patrons attending a program "*would see that something different was going on and then they would go check out the exhibit.*"

At the same time, a few partners pointed out that the exhibit was also likely to attract patrons to their *Discover Health* programming, as in:

➢ *[The exhibit] kind of acted as an advertisement for the programs that we did, [which] was great.*

➢ *The visual aspect of having the displays in the exhibit, of course we got a lot of questions from people, and that was a good segue for us to introduce the whole three months [of] programming that was going to be offered.*

➢ *I think [the exhibit] caught their visual attention, and then we were able to either speak with them in person, if we were by the exhibit, or we had flyers out near [the parts of the exhibit] that were eye-catching, like the big heart and the computer screens. So I think it was a way to kind of capture their attention and then direct them to the programming.*

2.5 Library partners' experience implementing programs

2.5a Comfort level in implementing programs and resources

As shown in Figure 8, most of the library partners agreed that they felt comfortable facilitating *Discover Health* programming, while just over half agreed that they felt comfortable integrating the *Discover Health* resources into their programs.

Figure 8. Extent to which library partners agreed or disagreed with statements about their comfort implementing the *Discover Health* programming (n=10)

I felt comfortable…	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
facilitating *Discover Health* programming in our library.	0%	0%	10%	0%	10%	10%	40%	30%
integrating the *Discover Health* resources into programs at our library.	0%	10%	0%	20%	10%	30%	20%	10%
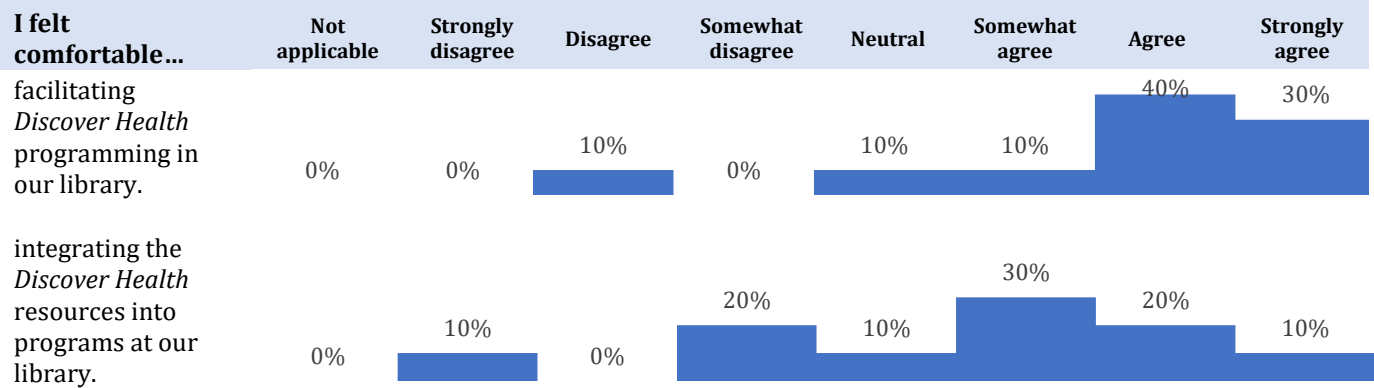
With respect to their comfort level with the resources, one library partner expressed some hesitation in using one of the provided activities, saying, "*During the training we were shown an example of a STAR Net hands-on activity related to food and nutrition. In this activity, food was wasted in the demonstration. We are hesitant to offer this type of program in our community, where many people experience food insecurity.*"

2.5b Challenges or barriers faced in implementing programs

The two main programming challenges or barriers identified by the library partners were recruiting patrons to their *Discover Health* programming and working with their AHEC partners and/or COAHEC. Specifically:

- Five library partners said the biggest challenge or barrier was recruiting individual community members and/or school groups to their programming. For example, one library partner explained that they had difficulty "*attracting new library patrons to programs and new visitors to the library [and] attracting patrons to programs that may be outside their comfort zone/new type of program.*"

- Three library partners commented on challenges faced working with their AHEC partners and/or COAHEC. For example, one noted, "*The AHEC in the area was not at all helpful. The one contact I did received would not do programming for me unless I could guarantee attendance - which is not feasible in the library world,*" while another observed, "*The biggest challenge/barrier for us was the lack of response from [COAHEC] … we needed to come up with several additional activities for the students was because so many exhibit pieces were broken, especially the green screen, which was an important program piece for the students to experience.*"

- Individual library partners shared other challenges or barriers, with one each commenting on not having enough space to "*provide programming for the school students*," having trouble finding program presenters, "*trying to fit all the programming in a short amount of time*," and "*not knowing what would be successful*" until their programs were planned and it was too late to make changes to the schedule.

2.5c Expectations for implementing future programs

Expectations at the conclusion of their exhibit tour. One library partner hoped to continue their *Discover Health* programming, while eight thought they would be likely to implement similar programming in the future. Some explained that these offerings would be a continuation of programming in place before *Discover Health* (as in, "*We regularly work on health-related programming for youth, so we will certainly continue to provide fun health education*"), while others described new, specific programming they hoped to continue, such as Kitten Yoga, Hatha Yoga, an orthopedic program, CRP classes, and health screenings or vaccinations, among other programs.

Perspectives at follow up interview. All six library partners who completed the follow up interview said their libraries had implemented or hoped to implement health-related programming as a result of participating in *Discover Health*. Two library partners described implementing or planning new programs that were directly related to what they did during *Discover Health*. Four library partners commented on health programs "*that were in motion before Discover Health*" or that they did "*from time to time*" prior to *Discover Health*. However, as one library partner observed, the impact on library programming went beyond just new programs, saying, "*I think [one program we've been doing] has taken some things from Discover Health, although it was … developed independently.*"

Images 21 and 22. Examples of youth-focused exhibit visits and programs at Delta library

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Part 3. *Discover Health* partnerships

3.1 Extent to which AHECs partnered with libraries as envisioned

Library and AHEC partners were asked to assess the extent to which the AHEC partners were involved in five areas articulated in the *Discover Health* project logic model for AHEC partners: identifying and advising on key community health concerns, recruiting local health partners, serving as a liaison to local health organizations, creating a database of contacts and state resources of preventive services, and working to plan activities and events to complement the *Discover Health* exhibit. In general, the AHEC partners were more positive in their assessment of the extent to which they played these roles, as detailed below.

3.1a Identifying and advising on key community health concerns

As shown in Figure 9, while the majority of library and AHEC partners perceived that the AHEC partners identified and advised on key community health concerns to at least a little extent, the AHEC partners were somewhat more positive in their assessment of the extent to which they played this role.

Figure 9. Extent to which partners perceived that the AHEC identified and advised on key community health concerns

	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
Library partners (n=10)	0%	20%	40%	0%	30%	10%
AHEC partners (n=10)	10%	0%	10%	40%	20%	20%
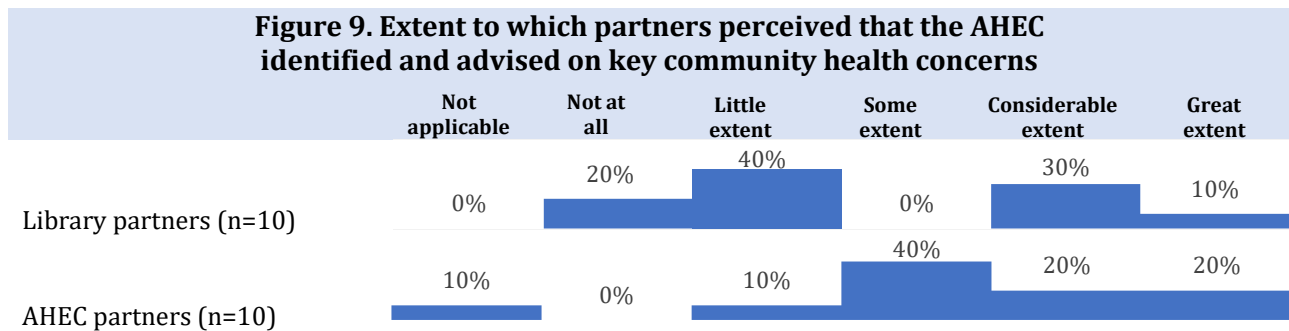
3.1b Recruiting local community health partners and medical researchers

As shown in Figure 10, while the majority of library and AHEC partners perceived that the AHEC partners recruited local health partners and medical researchers (e.g., University of Colorado Medical School) to at least a little extent, the AHEC partners were somewhat more positive in their assessment of the extent to which they played this role.

Figure 10. Extent to which partners perceived that the AHEC recruited local community health partners and medical researchers

	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
Library partners (n=10)	0%	0%	0%	40%	30%	30%
AHEC partners (n=10)	0%	10%	20%	40%	20%	10%
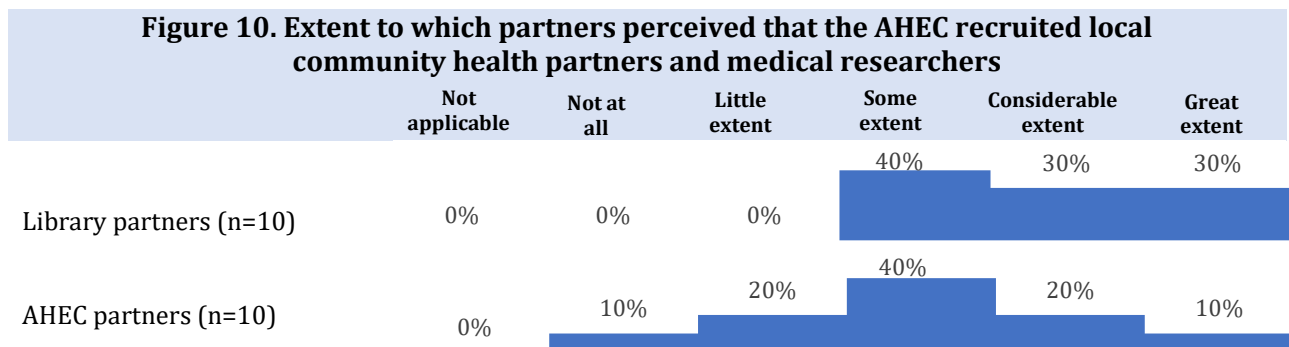
3.1c Serving as a liaison to local community health organizations

As shown in Figure 11, while the library partners were divided about whether or not and the extent to which the AHEC partners served as a liaison to local community health organizations, the AHEC partners were generally more positive in their assessment of the extent to which they played this role.

Figure 11. Extent to which partners perceived that the AHEC served as a liaison to local community health organizations

	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
Library partners (n=10)	0%	30%	30%	0%	30%	10%
AHEC partners (n=10)	10%	0%	10%	20%	40%	20%
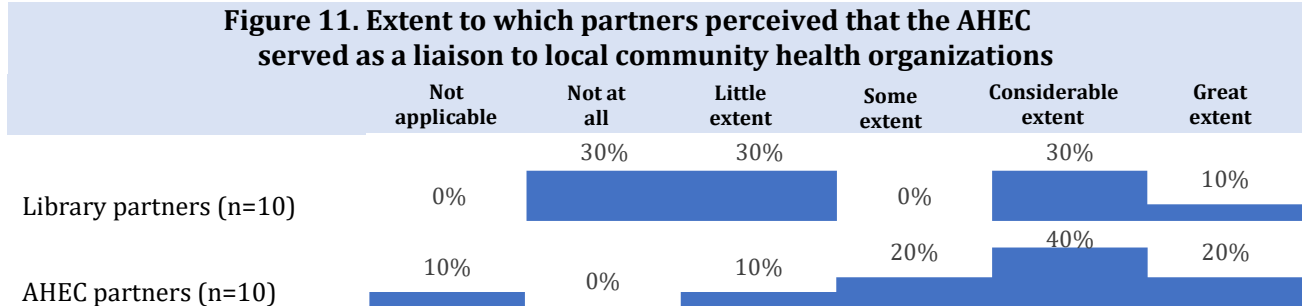
3.1d Creating a database of contacts and state resources of preventive services

As shown in Figure 12, both library and AHEC partners had somewhat different views about whether and the extent to which the AHEC partners assisted in creating a database of contacts and state resources of preventive services, including health care screenings, check-ups, and patient counseling. More than half of the AHEC partners indicated that they didn't play this role or that it wasn't applicable, and just under half of the library partners indicated their AHEC partners didn't do this.

Figure 12. Extent to which partners perceived that the AHEC helped the library create a database of contacts and state resources of preventive services

	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
Library partners (n=10)	0%	40%	20%	40%	0%	0%
AHEC partners (n=10)	30%	30%	10%	10%	10%	10%
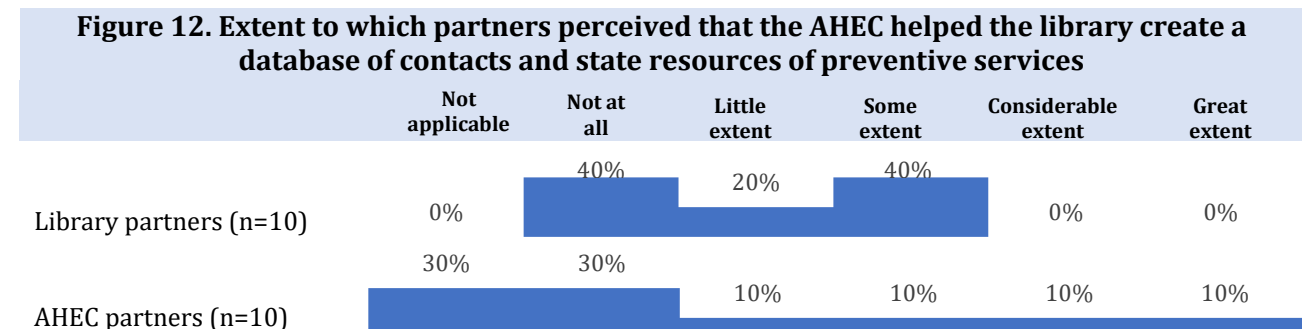
3.1e Planning activities and events to complement the exhibit

As shown in Figure 13, while the library partners were somewhat divided about whether or not and the extent to which the AHEC partners planned activities and events to complement the exhibit, the AHEC partners were generally more positive in their assessment of the extent to which they played this role.

Figure 13. Extent to which partners perceived that the AHEC planned health education activities and events to complement the exhibit

	Not applicable	Not at all	Little Extent	Some extent	Considerable extent	Great extent
Library partners (n=10)	0%	20%	30%	30%	20%	0%
AHEC partners (n=10)	0%	0%	10%	30%	10%	50%
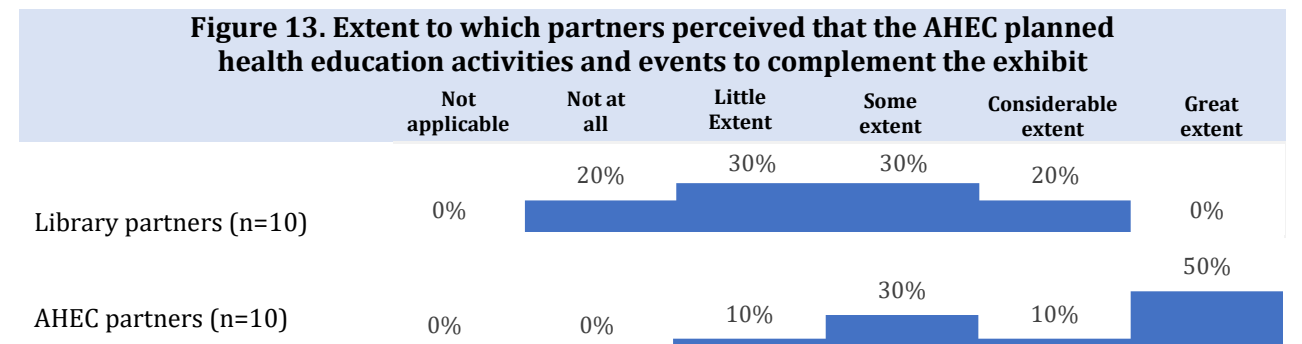
The AHEC partners were also asked to assess the extent to which they were involved in three aspects of their partner library's efforts to host the exhibit. As shown in Figure 14, more than half of the AHEC partners thought they had supported the library's efforts to implement or host the exhibit and/or that they had assisted with promoting the exhibit to a considerable or great extent. The majority of AHEC partners also thought they had assisted with co-developing outreach plans that leveraged the exhibit resources to some extent.

Figure 14. AHEC partners' assessment of the extent to which they were involved in other ways the project envisioned (n=10)

To what extent did your AHEC organization:	Not applicable	Not at all	Little extent	Some extent	Considerable extent	Great extent
support the library's efforts to implement/host the *Discover Health* exhibit	0%	0%	0%	30%	30%	40%
assist with promoting the *Discover Health* exhibit to local media and to the local health community	0%	0%	20%	20%	30%	30%
assist with co-developing plans for outreach that leveraged exhibit resources (e.g., the outreach kits and kiosk)	10%	10%	0%	60%	10%	10%

Partners at three sites described how they worked together on the set up and/or removal of the exhibit. For example, as one AHEC partner noted, "*Our staff team and student volunteers helped to receive the delivery of the exhibit and helped with setup and additionally helped with the outreach piece deliveries.*" Another AHEC partner explained that their library had decided to set up and take down the exhibit without their assistance. Partners at the remaining six sites didn't elaborate on whether or how they had worked together on the set up and/or take down of the exhibit.

3.2 How partners collaborated for *Discover Health* programming

Although the *Discover Health* project envisioned that the AHEC partners would support and assist the libraries through the activities covered in section 3.1, the primary project strategy that the library and AHEC partners collaborated on was developing and implementing programming.

3.2a Planning through the use of Community Dialogue

As part of the *Discover Health* project, the project team developed an approach for libraries to host Community Dialogues (CD) (Holland and Dusenbery, 2018), drawing on current work in Participatory Action Research and Participatory Evaluation (Selener, 1993; Button & Peterson, 2009; Kemmis et. al., 2013) and STEM learning ecosystems (Traill,& Traphagen,

2015). [8] As noted by the project team, the purpose of each CD was "*to record community health concerns, determine if the current exhibit/PBL/programming plan was relevant to these communities, and solicit suggestions for exhibit development, activity development, and partnership building with this project.*".[9][10]

Six of the 10 sites held a CD for participating libraries, AHEC staff, and other community partners. Five CDs were held in 2016, prior to their sites' *Discover Health* periods, and – due to logistical issues – one was held in January 2020, after that site's *Discover Health* period. The evaluation found that a few of the library and AHEC partners who attended a CD prior to their *Discover Health* period could not recall their involvement in the event (as in, "*Unfortunately there is nobody here who remembers having or attending this event, which is weird*"), possibly due to staff turnover or the years that passed between their CD and their *Discover Health* period. Among those who recalled participating in the CD, partners from both groups commented on the value of having their staff connect with one another prior to *Discover Health* and the opportunity to learn "*that we do have a lot to offer to each other's organization and the community.*" As one library partner explained, "*The Community Dialogue was very important to our planning process. Since we typically do not conduct much health-related programming it was crucial to learn about the services that AHEC provides and their connections with community health services in the community.*"

3.2b Number and types of programs jointly implemented

As noted in section 2.1, the 10 libraries coordinated a total of 240 *Discover Health* programs. The libraries coordinated between nine and 88 programs per site, or an average of 24 programs per site. AHEC staff were asked how many programs they implemented or helped implement with their library partners. Among the seven AHEC staff who shared a specific number, responses ranged from three to 10 and averaged six programs per site. In total, the seven AHEC staff said they had jointly implemented 43 programs. Remaining AHEC staff said, "*all the programs they asked of us*," "*most of the events at the library,*" or declined to respond.

AHEC organizations were involved in a variety of *Discover Health* programs with their library partners. As shown in Figure 15 (page 32), at eight of the 10 sites, they assisted with a health careers program or event, at six sites they helped implement a kick-off event, and at four sites they were involved with a health screening. At two sites the libraries and AHEC partners worked together to implement a health festival, and at one site each they coordinated a chronic disease management program and a healthy diet program. Additional programs the libraries and AHECs partnered on included: "*Teen opioid use prevention*," "*oral health*,"

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[8]Kemmis, S., McTaggart, R., & Nixon, R. (2013). *The action research planner: Doing critical participatory action research*. Springer Science & Business Media.

Button, G. V., & Peterson, K. (2009). Participatory action research: community partnership with social and physical scientists. *Anthropology and climate change: from encounters to actions*, 209-217.

Selener, J. D. (1993). Participatory action research and social change: Approaches and critique.

Traill, S., & Traphagen, K. (2015). *Assessing the impacts of STEM learning ecosystems: Logic model and recommendations for next steps*. Working paper]. Retrieved from http://stemecosystems. org/wp-content/uploads/2015/11/Assessing

[9] Holland, A. and Dusenbery, P.B., (2018). Community Dialogues in Informal Science Institutions, *Informal Learning Review,* No. 152, 21-24, September/October.

[10] Report from the *Discover Health/Descubre la Salud* Community Dialogues.

"advanced care directives and fire safety," and *"school field trips [and] meet and greet w/pediatrician."*

According to library and AHEC partners, AHEC staff most often assisted by working on program design or development, sending staff or volunteers to the event, helping with marketing/ promotion, and/or introducing

Figure 15. *Discover Health* programs jointly implemented by library and AHEC partners (n=10)

Number of partner sites

Program	Number of partner sites
Health careers program/event	8
Kick-off event	6
Health screening	4
Health festival	2
Chronic disease management program	1
Health diet program	1
Other	5

library partners to local contacts and organizations. Describing how they thought of their role in programming planning, one AHEC partner explained, *"The library is an integral part of its community, and, as such, has a great number of planned events on its calendar. We worked together to make Discover Health part of the events already scheduled, and, worked to schedule as many new events pertaining to Discover Health as possible."*

3.3 Partners' reflections on the partnership

3.3a How valuable partners found the partnership

Figure 16 shows that, in general, AHEC staff found the library-AHEC partnership somewhat more valuable than did the *Discover Health* library partners. Whereas all of the AHEC staff found the partnership at least moderately valuable, six library partners found it at least moderately valuable, three found it slightly valuable, and one said it was not at all valuable.

Figure 16. How valuable partners found the library-AHEC partnership

	Not at all valuable	Slightly valuable	Moderately valuable	Very valuable	Extremely valuable
Library partners (n=10)	10%	30%	10%	30%	20%
AHEC partners (n=10)	0%	0%	20%	20%	60%
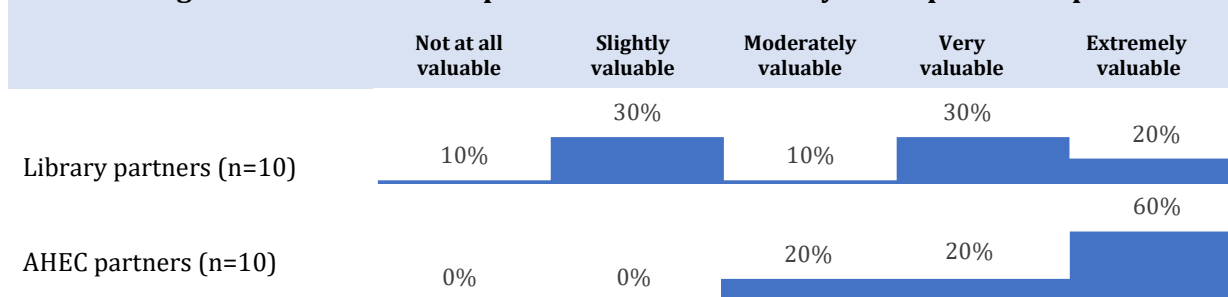
Feedback from AHEC staff about the partnership was almost entirely positive, as in, *"[The library was] awesome to work with, very professional and super creative and passionate in their work"* and *"Our partnership with this library is one of our best partnerships in our region. They have extreme trust of our organization and will support events we bring to the table."*

In comparison, half of the library partners were positive about the value of the partnership and what they gained from working with their local AHEC, as in, *"… they were knowledgeable about providing medical services and things that Library partners might not know, in this respect it was valuable to have a health organization that works within the community to*

provide assistance in planning medical related programming." Two library partners simply explained that their partnership had been "*limited,*" and two commented on challenges they faced working with their AHEC partners, as in, "*we didn't have a great partnership with our AHEC … [they were] difficult to communicate with throughout the whole process.*"

3.3b Whether partners had a good idea how to collaborate on programming

As shown in Figure 17, after completing their *Discover Health* periods, three of the library partners agreed that they had a good idea how to partner with their AHEC organization to implement this programming, while six of the AHEC staff agreed or strongly agreed this was the case.

Figure 17. Extent to which partners agreed or disagreed that they had a good idea of how to partner with each other on implementing *Discover Health* programming

	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
Library partners (n=10)	0%	10%	0%	30%	10%	20%	30%	0%
AHEC partners (n=10)	0%	0%	0%	0%	0%	40%	30%	30%
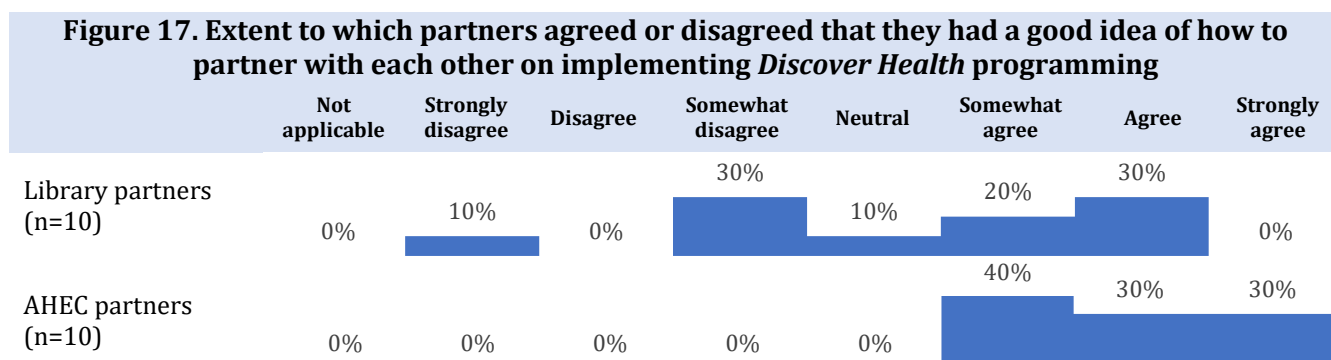
3.3c Whether partners thought they collaborated effectively on programming

As shown in Figure 18, four library partners agreed or strongly agreed that they had been able to effectively partner with their AHEC organization to implement *Discover Health* programming, while seven of the AHEC staff agreed or strongly agreed this had been the case.

Figure 18. Extent to which partners agreed or disagreed that they were able to effectively partner with each other to implement *Discover Health* programming

	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
Library partners (n=10)	0%	10%	20%	10%	0%	20%	20%	20%
AHEC partners (n=10)	0%	0%	0%	0%	0%	30%	50%	20%
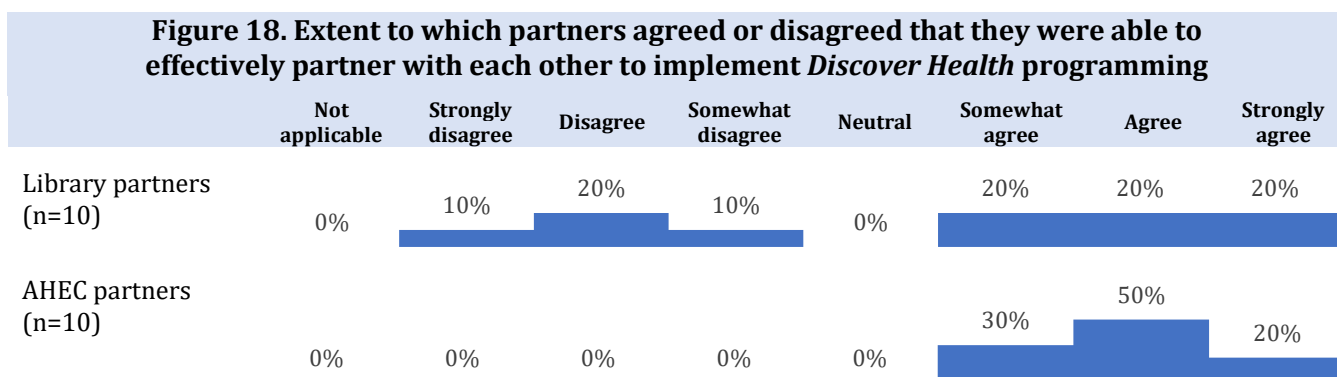
3.3d Partners' recommendations for future collaborations

In their post-exhibit surveys and follow up interviews, a few library partners and AHEC staff shared recommendations for how the library-AHEC partnership might be improved, particularly in the area of communication with their partner as well as program presenters.

Library partners. Three library partners commented on areas where their partnership might have been improved. The first library partner thought it would have helped with their planning if their AHEC partner only had one contact for *Discover Health*, adding that this would have simplified communication efforts, as in, "*There were times where [I thought], 'There are so many people involved with this project, and who is the right person to contact for this program?'*"

Also pointing to communication issues, the second library partner thought their partnership would have been improved by a more responsive partner, saying, "*We tried really hard to communicate with our local AHEC representatives, meet and plan and get them on board and everything, and unfortunately there were several meetings where no one from the AHEC came, like they had agreed to come and then no one came. There was one meeting that we rescheduled, the person couldn't make it and they didn't tell us until 30 minutes before. So it was really frustrating.*" This library partner went on to say that they felt that lack of communication from their AHEC partner also hindered their program presenters, saying, "*[Our AHEC partner was] responsible for pulling in professionals from different fields. [We had some good presenters] but they showed up without really having been told by AHEC what to do. They were just thrown into it without the communication they deserved, and was needed for them to do a good job. [With another program] I had to fight to get contact information [of the presenter], but I'm glad I did because on the day of, she didn't know what was going on. It was not a great experience for me.*"

The third library partner explained that their "*biggest challenge*" was physical distance, which made it difficult to meet in person.

AHEC partners. The library partners' comments were echoed in the AHEC feedback. Three AHEC partners stressed the importance of communication with their library partners, as shown in their comments below:

- ➢ *... to continue the healthy relationship and maintain communication*
- ➢ *To have a better streamlining of communication from the program staff.*
- ➢ *[At a bigger library] there are more layers of people to communicate with and through ...*

Finally, one AHEC partner noted that physical distance had been an issue for their partnership ("*Part of it is that we're an hour away ... that has nothing to do with Discover Health [though]*"), and one commented on how a supportive community could also aid these kinds of partnerships in the future, saying, "*[Other towns I know of are] real close-knit communities [where every organization] sees value in supporting one another, they don't get so tied up in their own niche. [This town] isn't that way because it's bigger, [so] it's harder to establish and maintain those connections. [I think this was a challenge during and beyond Discover Health.] I think had those relationships been closer between the different communities, instead of so isolated, it would have made Discover Health more impactful.*"

3.4 Partners' expectations for working together in the future

3.4a Whether partners expected to work together

Figure 19 shows that most of the AHEC partners thought they would probably or definitely work with their library partner in the six months after *Discover Health*, whereas fewer library partners thought they would probably or definitely work together during this time period.

Figure 19. Whether partners thought they would work together in the six months after *Discover Health*

	Definitely won't	Probably won't	May or may not	Probably will	Definitely will
Library partners (n=10)	10%	20%	10%	20%	40%
AHEC partners (n=10)	0%	0%	20%	30%	50%
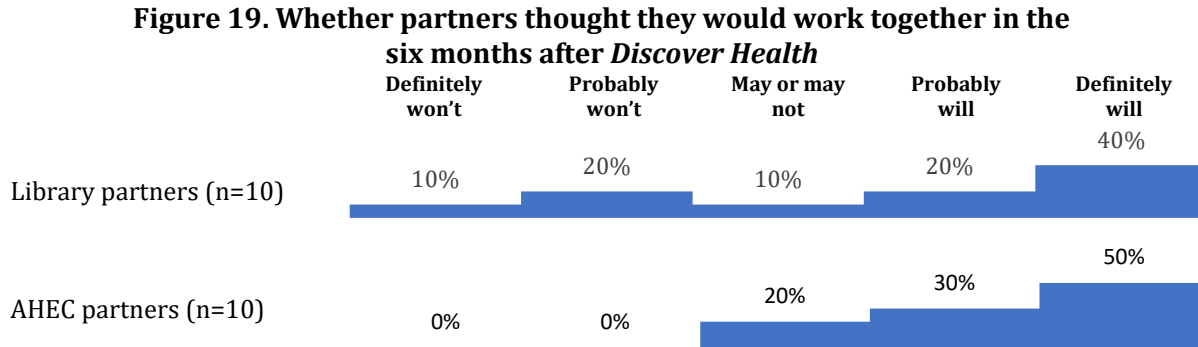
Partners who thought they might work together again generally commented on how much they enjoyed the experience of collaborating during *Discover Health*, as well as what they thought an ongoing partnership could bring to their community members. For example, one of the AHEC partners said, "*We know that we may consider the library and the access it offers to its local medically underserved population should we have a program targeting that demographic*," and one of the library partners explained, "*AHEC offered services and programs our patrons found valuable.*" In general, these partners expressed an interest in sharing resources, promoting events, planning programming "*to promote health careers*," and providing medical testing or health screenings for library patrons, among other potential program offerings.

The two libraries who thought they probably wouldn't work with their AHEC partners said this was because they did not have plans to do so at that point in time. The library partner who said they definitely wouldn't work with their AHEC partner elaborated on the challenges experienced in a few areas of their partnership, saying, *"I asked repeatedly for help with the Faces of Healthcare display and got no answer back. I had an embarrassingly blank display. I was told there were going to be advertising through them and help with school group and then never heard from anyone. I realize that the representative preferred phone calls, but they never even attempted to answer an email. I was patronized and told there was plenty of time to figure things out … but [we were] running into publicity deadlines."* Finally, one of the library partners who said they may or may not work with their AHEC partner explained that they also found it difficult to work together, saying their AHEC partner was "*so unresponsive and challenging to work with throughout the entire process, we would not consider partnering with them for library-sponsored programming, or any projects with deadlines or shared accountability … but they are welcome to reserve our community room for events.*"

3.4b Partners' reporting at follow up

At the time of the follow up interview, none of the library or AHEC partners indicated that they had worked together after *Discover Health*, although some of the partners were open to an ongoing collaboration and/or described how they worked together before *Discover Health*.[11] Specifically:

- One library partner indicated that they still hoped to work with their AHEC partner on health screenings, saying, "*We have talked [with our AHEC partner] about doing some health screenings at the library. They work with a lot of new nurses, people in training, so we could try and host some free health clinics here. What they're helpful with is they can kind of provide contacts to local experts in the area ... [and] the expertise.*" This site's AHEC partner also expressed an interest in working with their library partner again, saying, "*Everybody goes to the library, so it kind of breaks down some of those access barriers ... The libraries are very community-oriented places, and those are the people we're trying to reach.*"

- One library partner explained that, because of budget and staffing issues, they weren't able to plan programs outside of their normal offerings. This library partner added that this in no way reflected on their AHEC partner, saying, "*... we feel very connected to our AHEC rep here, and we have worked with her in a number of different ways, and we certainly would have no hesitation working with her in the future.*" Their AHEC partner also thought they were unlikely to work together in the near future, for similar reasons.

- One library partner said they hadn't talked to their AHEC partner since *Discover Health* but added that their space was "*available for them*" for future events. Their AHEC partner thought they might have reached out to the library about coordinating a health fair at the library but couldn't remember the specifics of any conversations that may have taken place.

- Two library partners felt they were unlikely to work with their AHEC partners again, with one adding, "*We didn't have a great partnership with our AHEC.*" At one of these sites, the AHEC partner said they had considered "*using the library to host an opioid [event]*" but explained that the volunteer in charge of coordinating the event had been too busy to reach out to the library about use of their space. At the second site, the AHEC partner thought budget and staffing issues at the library made it unlikely they would continue to work together.

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[11] Library and AHEC partners from one of the sites that didn't conduct follow up interviews indicated in their evaluation surveys that they were continuing to work together after *Discover Health*. It is not known if partners from the other three sites continued to work together.

Part 4. Partners' *Discover Health* project experience

4.1 Partners' participation in project communities of practice

4.1a Consultation with other library partners

Half of the library partners indicated they didn't consult with other library partners prior to or during the time they hosted *Discover Health*, with one adding that they "*didn't feel the need.*" Instead, these five library partners contacted the project team with their questions, as in: "*Most of our questions/issues were related more to the physical exhibit artifacts displayed as well as multi-media trouble shooting and for those things we consulted with [a project team member].*" The remaining five library partners reported that they did consult one or more libraries for information, advice, or troubleshooting, as illustrated in their comments below.

➢ *We contacted [a] library to learn about their experience with the exhibit and programming. The director was very helpful and let us know her thoughts on the exhibit.*
➢ *We visited [the] library where the exhibit was displayed. That gave us an idea of the actual components and what would be needed and how to place them in our facility.*
➢ *We contacted [the] library to ask logistical questions and get feedback about their experience. They were very encouraging, helped with some iMeet Central items, and helped us plan the shipment. [Two other libraries] have both contacted us to discuss shipments, programs, and working with [their AHEC partner].*
➢ *We contacted [the] libraries to get feedback on their experience and to answer set-up and scheduling questions since we were receiving the exhibit from them.*
➢ *I contacted the Library District staff and toured the exhibit just to refresh my memory. I asked what kind of programming they found worked, and spoke to them about how helpful or not helpful the AHEC was. I also contacted [another] library to ask some preliminary set up questions and how long it took to receive their funding.*

4.1b Use of iMeet Central

Table 6 shows how often the library and AHEC partners reported that they visited iMeet Central, the online repository of project materials and space for collaboration, once they began participating in the project. Most of the library partners visited monthly or less often, while most of the AHEC partners visited less than monthly, if at all.

Table 6. Frequency with which partners visited iMeet Central during *Discover Health*

Frequency of visits	Library partners (n=10)	AHEC partners (n=10)	Total partners (N=20)
Daily	0	0	0
Weekly	1	1	2
Every two weeks	3	0	3
Monthly	2	1	3
Less than monthly	4	6	10
Never	0	2	2

4.2 Partners' participation in the *STAR Net* community of practice

4.2a Frequency of visits to the community of practice

Table 7 shows how often the library and AHEC partners reported visiting the *STAR Net* community of practice website since they began participating in the project. Most of the library partners visited monthly or less often. Three AHEC partners visited every couple of weeks, while the rest never visited or, in one case, visited less than monthly.

Table 7. Frequency with which partners visited the *STAR Net* community of practice during *Discover Health*			
Frequency of visits	**Library partners (n=10)**	**AHEC partners (n=10)**	**Total partners (N=20)**
Daily	0	0	0
Weekly	0	0	0
Every two weeks	0	3	3
Monthly	4	0	4
Less than monthly	4	1	5
Never	2	6	8

4.2b Perceived usefulness of the community of practice

Figure 20 shows that AHEC partners tended to find the *STAR Net* community of practice website more useful to their participation in the *Discover Health* project than did the library partners. Library partners generally found the website slightly to moderately useful[12], while all of the AHEC partners found it moderately to extremely useful.

Figure 20. How useful partners found the *STAR Net* community of practice

	Not at all useful	Slightly useful	Moderately useful	Very useful	Extremely useful
Library partners (n=8)	0%	50%	38%	13%	0%
AHEC partners (n=4)	0%	0%	25%	25%	50%
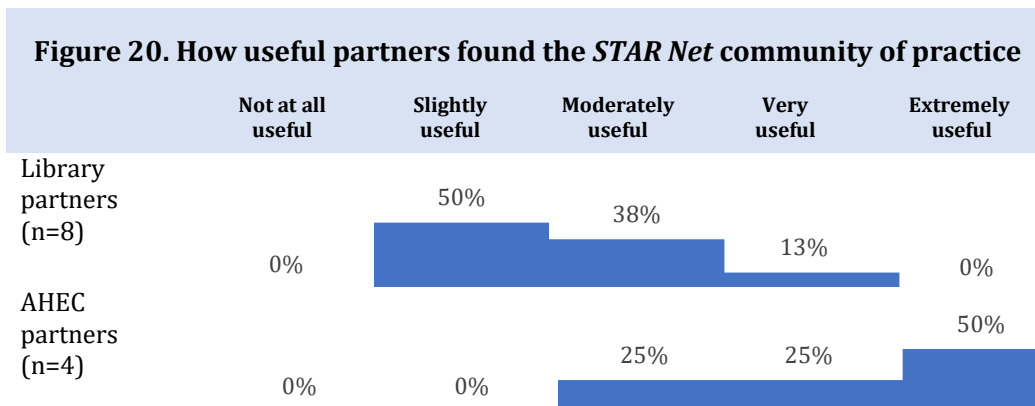
All but three of the library partners indicated they had used the website prior to joining the *Discover Health* project, while all four AHEC partners indicated they had never used the site previously. When invited to explain their ratings as to how they did or didn't find the site useful to their project experience, the partners reflected as follows on the next page.

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[12] When library partners who completed the follow up interview were asked to rate the extent to which their *Discover Health* project promoted opportunities and best practices for their library to build partnerships through the resources and connections on *STAR Net*, responses were similarly mixed. One declined to answer, two said to a little extent, and one each said their project did this to a considerable extent, to some extent, or not at all.

Library partners
- *We may have used it more if we weren't as rushed to get our programming arranged.*
- *I think I went to the website once to try to find information and wasn't able to find what I was looking for.*
- *It is helpful to have one location to find necessary information.*
- *We did not have much occasion to take advantage of the STAR Library Network Community of Practice website.*
- *Good info, I would just forget to use it.*
- *I found it difficult to find information on the site that was not already covered in the binder, and did not find much in the discussion fields.*
- *We utilized the printable overview for sharing with staff about the exhibit and preparing them for possible questions. We used some images for marketing.*

AHEC partners
- *I used other libraries' photos and flyers to learn what events were held and used their posted photos for reference. Once the high resolution (official) photos were uploaded, I was able to use those for our Media and Website agent for advertising flyers and web related newsletters. Also used information on the site to learn more on [Discover Health]. None of our staff had participated in the … training, hence, the use of the Star Net site was very helpful.*
- *The Community Dialogue guide was very helpful*
- *Good source of information.*
- *Reliable source of information.*

4.2c Use of the community of practice resources

Table 8 shows the resources that the partners used from the *STAR Net* community of practice. Among the resources asked about, the partners collectively most often used blog posts followed by newsletters, the *STAR Net* STEM Activity Clearinghouse website, and webinars. One library partner indicated using another resource: *"The Health Online Teacher's Guide for each body system was downloaded and placed in the Discover Health Notebook and used a reference."*

Table 8. Use of *STAR Net* community of practice resources during *Discover Health*

Resources	Library partners (n=8)	AHEC partners (n=4)	Total partners (n=12)
Newsletters	1	2	3
Webinars	1	0	1
Blog posts	3	1	4
STEM Activity Clearinghouse	2	0	2
Other	1	0	1
None of the above	3	1	4

4.2d Partners' reporting at follow up

Among the six library and five AHEC partners who conducted the follow up interview, three libraries and one AHEC partner thought they had visited the *STAR Net* community of practice after their *Discover Health* periods, although one library and one AHEC partner couldn't say for certain. Those who commented on why they hadn't visited or didn't plan to visit in the future most frequently pointed to their busy schedules, and one each said they needed to orient themselves to the content of the site or suggested a community of practice would better

suit their needs over social media (as in, *"People do social media, they can scroll through and utilize when they're in between [other things] … Looking at [websites] on my phone is not as good for me … We do emails and stuff on the run. Having to take the time to stop and get a computer and log in and upload and all that, the time just isn't there like it used to be a few years ago"*).

4.3 Whether the project met partners' expectations

4.3a Whether the project met library partners' expectations

Seven library partners indicated that *Discover Health* met their expectations, while two felt it did in some ways but not in other ways, and one felt it did not meet expectations. Those who felt it met expectations praised the project with words like "*fun*," "*great*," and/or "*inspired*," commented on new community connections, and/or pointed to increased community awareness of health issues. Remaining library partners said they had hoped the project would "*spark more interest*" or cited implementation issues. Their explanations follow below.

Met expectations
➢ *Yes. The project was great. It made our community more aware of health issues and options they have. It also brought new people into the library. We have continued to work with some agencies we had not worked with prior to the project.*
➢ *Yes, the exhibit was great! The exhibit was flexible enough that we were able to tailor it to fit the unique circumstances of our Library. The exhibit was very well received and the programs on health proved to be valuable to our patrons. We received lots of great feedback and made lots of community connections. I think it will inspire us to continue providing more STEM and health-related programming. It gave patrons new opportunities to experience STEM and health programs and gave people access to health information they may not have had otherwise.*
➢ *Yes, it was a fun exhibit to host. We had great dialogue from patrons about it and many who were inspired to look at their own health habits.*
➢ *Yes, participation in this program met our expectations. These are the types of experiences that our community needs and it was an honor to participate.*
➢ *Yes, it was a great exhibit. We don't have many things like that that come to [our library] and I think our patrons appreciated it.*
➢ *Positive patron feedback exceeded our expectations because we were not certain if patrons would be comfortable using library spaces once the exhibit was installed. We also did not anticipate how much enjoyment our staff would get out of the exhibit! With regard to programming, we were surprised at how some programs had unusually low attendance, and other programs were filled to capacity.*
➢ *This was a new experience for us, and we weren't totally certain what we should expect. However, we believe that the exhibit was successful, and has allowed us to be more comfortable with and conscious of opportunities that these types of exhibits provide.*

Partially met expectations
➢ *This was a new attempt to interest our community in the health issues that are prevalent in our communities. I hoped it would spark more interest than it did.*

> *With respect to our primary goal of having approximately 1800 school students experience the exhibit, yes, absolutely. With respect to the implementation side of the exhibit, no, absolutely not.*

<u>*Did not meet expectations*</u>
> *I had high hopes for this project because we had such fun with Discover Earth. I was met with nothing but frustration in pulling all of this together. I am sure it would have been different if my original manager had stayed with me to make it all happen. Since that was not the case, I did the best I could.*

4.3b Whether the project met AHEC partners' expectations

Nine of the AHEC partners indicated the project met their AHEC organization's expectations, with two indicating the project exceeded their expectations. One partner indicated the project partially met expectations. Their explanations touched on various aspects of the project, as illustrated in their explanations below.

<u>*Met expectations*</u>
> *Yes. It exceeded it because we continue to work with this library.*
> *Yes, after the training we had a pretty fair idea of the goal.*
> *Yes, as it was an interesting and enjoyable project to work on. It was nice being involved in a multi-region project, being part of something that was state-wide.*
> *Our [AHEC] and the library planned on presenting pertinent events with local the local farmer's market, nursing schools, health departments, students, etc. Although not all planned events were implemented due to conflicting dates and limited space, and geographic size, we were very pleased with what [Discover Health] accomplished.*
> *Participating in Discover Health met expectations in general.*
> *The project was beyond my expectations but would have hoped we had an easier chain to get support.*
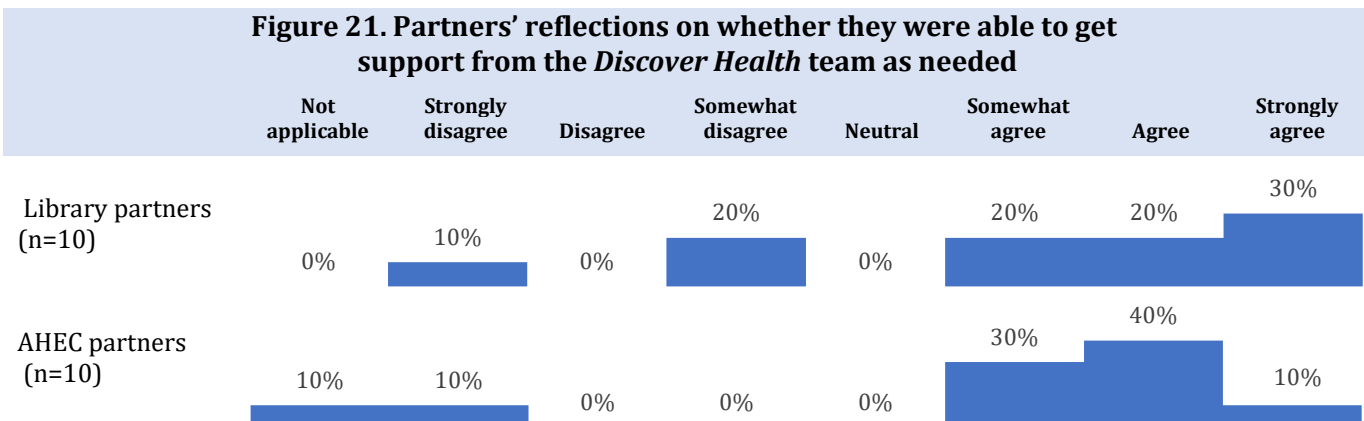> *Yes . We did what we planned to do.*

<u>*Partially met expectations*</u>
> *This exhibit would have been better if the training had happened for the Library staff.*

4.4 Whether partners were able to acquire project support as needed

As shown in Figure 21 the partners generally agreed that they were able to get support from the *Discover Health* team as needed – in the case of library partners, as needed when hosting the exhibit and programming, and in the case of AHEC partners, as needed when collaborating on programming or related activities. Those who chose to elaborate generally indicated they appreciated the project team's responsiveness or noted that different needs were met at different times, if at all, as in, "*Regarding getting support from the [Discover Health] team: We had a volume issue with the large screen display (the one that showed the short videos) that was never resolved. We had some tech issues that took a while to be addressed while others were addressed immediately.*"

Figure 21. Partners' reflections on whether they were able to get support from the *Discover Health* team as needed

	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
Library partners (n=10)	0%	10%	0%	20%	0%	20%	20%	30%
AHEC partners (n=10)	10%	10%	0%	0%	0%	30%	40%	10%

4.4a Whether and how COAHEC helped AHECs in planning and implementation

The 10 AHEC partners were asked if the COAHEC Program Office played a role in helping them plan or implement any of their *Discover Health* project activities, to which seven said yes, two said no, and one did not respond. Those who thought COAHEC helped in this way praised the Program Office for their support in clarifying project expectations, answering questions, providing contacts "*with the correct people,*" assisting with exhibit delivery and set up, and/or monitoring the planning of local events. Those who said no explained that COAHEC "*does not play a role in implementing project activities*" or said they would have appreciated more support in terms of coordinating on-site exhibit repair.

4.5 Whether partners experienced professional gains

All but one partner described at least one professional gain as a result of participating in the *Discover Health* project. Most often they pointed to networking opportunities and developing new or reinforcing existing partnerships, followed by knowledge gains in implementing aspects of the project.

4.5a Whether library partners experienced professional gains

All of the library partners pointed to at least one professional gain. Six partners spoke of the networking opportunities the project afforded, where they developed new partnerships or reinforced existing community collaborations. A few partners pointed to gaining knowledge of how to implement exhibits and/or doing outreach to diverse populations. Examples of their comments follow.

Image 23. Example of library and community organizations collaborating at Alamosa library health program

➢ *Recommitted our collaborations with health-serving organizations*
➢ *It allowed us to form new partnerships within the community and has started a dialogue between our library and community stakeholders/organizations. It also allowed us to strengthen our existing partnerships.*
➢ *Our community was able to participate in a high-quality museum exhibit and this has valuable impacts on the community because we don't have these types of science-based and informal learning resources regularly in our community.*
➢ *We have gained several great professional connections … We have also gained considerable insights into the feasibility and challenges of hosting a project of this size, especially with regard to physical layout and partnerships outside the library community. As a side note, both [staff] gained professional skills in project management. Neither of us are currently employed in library management or administration roles, nor do we typically have the opportunity to build library partnerships or plan public programs, so it was a stimulating and challenging experience to step outside our normal day-to-day job requirements and take on a project with so many different facets.*
➢ *We gained knowledge in how to better prepare for large exhibits and in bringing large classes of students into the library.*
➢ *We gained a network of local health providers and organizations that can be future partners in providing programs and services for our patrons. We also were exposed to new themes and program ideas that fit with STEM and health topics. It helped us to consider other methods of outreach to underserved populations, and encouraged us to think about ways to make our programs more accessible to diverse populations.*

4.5b Whether AHEC partners experienced professional gains

All but one of the AHEC partners pointed to at least one professional gain. Six partners spoke of the networking opportunities the project afforded, where they developed new partnerships or reinforced existing community collaborations. A few partners pointed to gaining knowledge of new learning opportunities, topics, and/or problem-solving skills. Examples of their comments follow below.
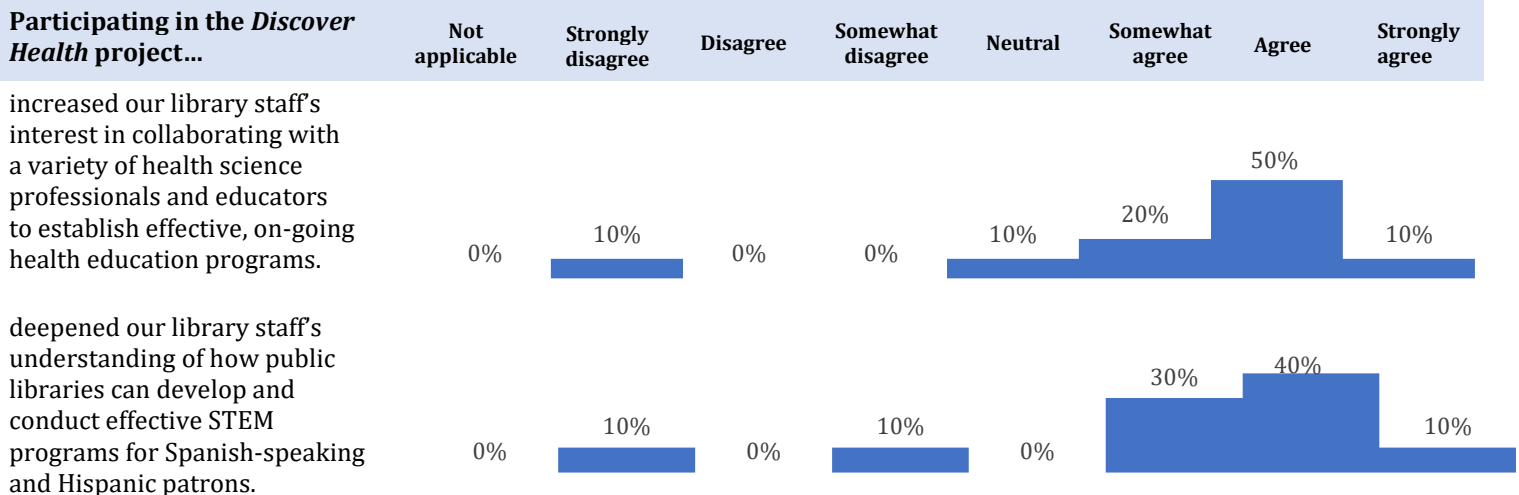
➢ *Good contacts and resources to use in future programs.*
➢ *Additional connections to partners in our community. Opportunity to apply for an additional grant with the library.*
➢ *Educating a community always opens new topics and questions for additional learning opportunities*
➢ *The partnership with the local librarian was valuable.*
➢ *Gained relationships with key library staff and educated them about AHEC programs.*
➢ *I did learn more collaboration and also how to problem solve even when things are not moving in the right direction.*
➢ *I learned to work through issues and not let this be a concern for the library.*

4.6 Perceived impact on library staff and capacity

4.6a Perceived impact on library staff interest and understanding

Although there were some differences of opinion, Figure 22 shows that library partners generally agreed that participating in *Discover Health* increased their library staff's interest in collaborating with a variety of health science professionals and educators to establish effective, on-going health education programs, and that it deepened their understanding of how public libraries can develop and conduct effective STEM programs for Spanish-speaking and Hispanic patrons.[13]

Figure 22. Library partners' reflections on whether participating in the *Discover Health* project impacted their library staff (n=10)

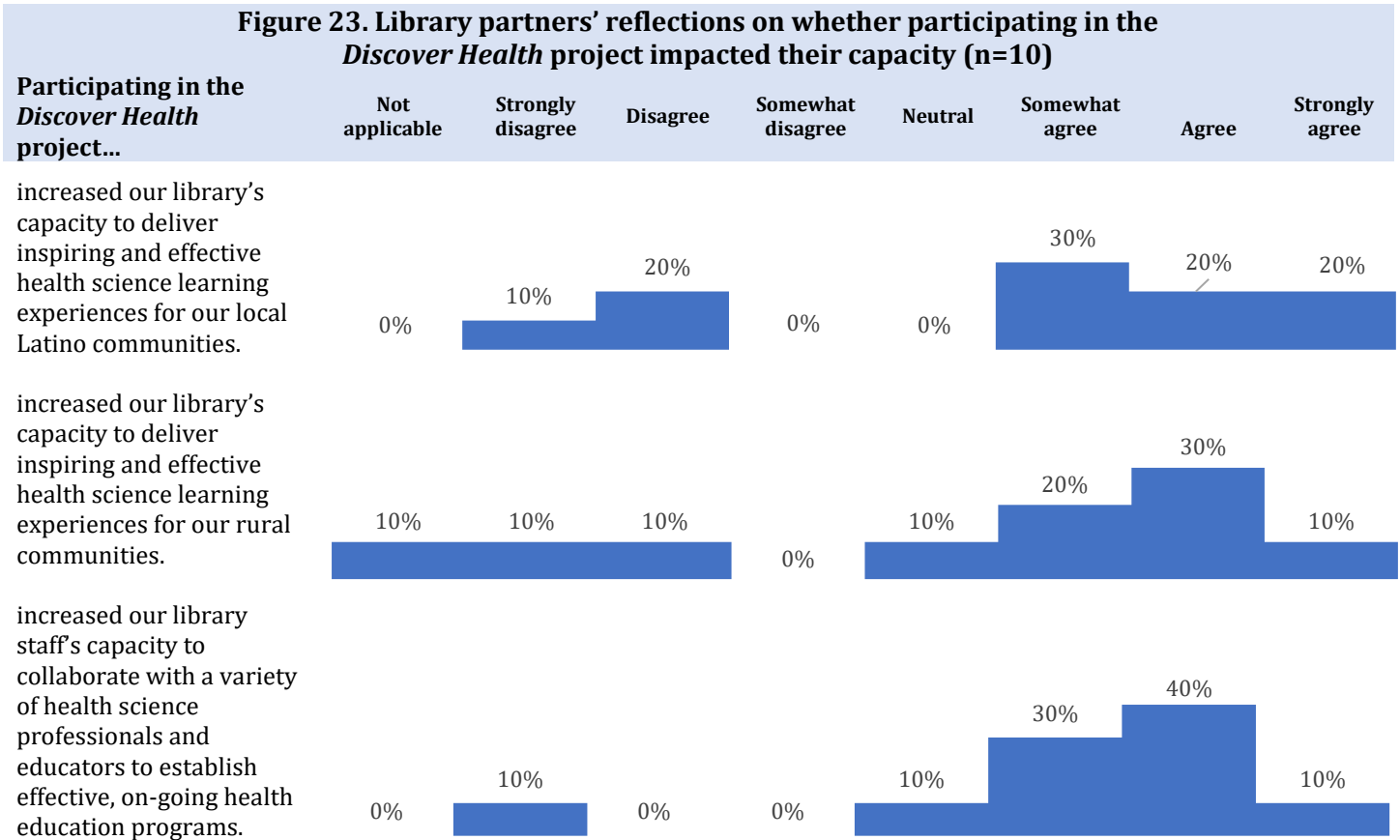| Participating in the *Discover Health* project…	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
increased our library staff's interest in collaborating with a variety of health science professionals and educators to establish effective, on-going health education programs.	0%	10%	0%	0%	10%	20%	50%	10%
deepened our library staff's understanding of how public libraries can develop and conduct effective STEM programs for Spanish-speaking and Hispanic patrons.	0%	10%	0%	10%	0%	30%	40%	10%

[13] When asked similar questions in the follow up interview, the six library partners generally shared comparable feedback.

4.6b Perceived impact on library capacity

Figure 23 shows how library partners reflected on the impact of participating in the *Discover Health* project on their library's capacity. Although there were some differences of opinion, they generally agreed that participating increased their library's capacity to deliver inspiring and effective health science learning experiences for their local Latino and rural communities, and that it increased their capacity to collaborate with a variety of health science professionals and educators to establish effective, on-going health education programs.[14]

Figure 23. Library partners' reflections on whether participating in the *Discover Health* project impacted their capacity (n=10)

Participating in the *Discover Health* project...	Not applicable	Strongly disagree	Disagree	Somewhat disagree	Neutral	Somewhat agree	Agree	Strongly agree
increased our library's capacity to deliver inspiring and effective health science learning experiences for our local Latino communities.	0%	10%	20%	0%	0%	30%	20%	20%
increased our library's capacity to deliver inspiring and effective health science learning experiences for our rural communities.	10%	10%	10%	0%	10%	20%	30%	10%
increased our library staff's capacity to collaborate with a variety of health science professionals and educators to establish effective, on-going health education programs.	0%	10%	0%	0%	10%	30%	40%	10%

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[14] When asked similar questions in the follow up interview, the six library partners generally shared comparable feedback.

Discussion

This report presented a cross-site analysis of the implementation of the *Discover Health* project at the 10 Colorado library sites that hosted the exhibit during the 35-month exhibit tour period, from January 2017 to November 2019. The evaluation relied on the reporting information and reflections provided by the library and AHEC partners who collaborated to host the exhibit and coordinate programming. The evaluation team gathered reporting forms and surveys from a total of 20 partners, comprising the 10 library partners and their associated AHEC partners, within a month of their finishing their exhibit tour. The team also conducted follow-up interviews with six library and five AHEC partners approximately six months after the exhibit left their site. Partner feedback was gathered with respect to: the *Discover Health* exhibit, the *Discover Health* programming, the library-AHEC partnership model, and the partners' overall project experience.

This Discussion first highlights findings that emerged in four areas: the *Discover Health* exhibit, programming, library-AHEC partnership, and partners' overall project experience. It then shares a few recommendations that may help inform future library-based health education projects, particularly those designed to engage underserved Hispanic and rural communities. Where applicable, the Discussion also considers feedback from patrons who completed a post-program evaluation survey after attending a *Discover Health* program at their local library.

Discover Health exhibit

Exhibit visitors, how the exhibit was received, and its observed impact: Based on estimates provided by nine of the 10 libraries, nearly 400,000 patrons, or about two out of three library patrons, visited the *Discover Health* exhibit over the tour period, including family members, school groups, and homeschool groups.[15] In general, the library partners thought the exhibit was well-received by their patrons. When asked to describe the exhibit's impact on these patrons, all 10 library partners said they thought it impacted patrons' learning and engagement around the topics of how the body works and how to keep the body healthy, as envisioned by the project, and some partners also observed that it provided an opportunity for families to interact around the displays and/or that it had been well-received by Spanish-speaking patrons.

Most and least valuable aspects, challenges or barriers, and exhibit suggestions: Overall, the library partners found the hands-on and bilingual elements to be some of the most valuable aspects of the exhibit for their patrons, while the "*electronic media elements*" were found to be least valuable by half of the group, largely due to technical issues at some of the sites. The main challenges or barriers the library partners faced in hosting the exhibit related to staff and volunteer time or funding issues, insufficient space (particularly at smaller, rural libraries), and issues with broken electronic elements. Those who shared areas where they thought the exhibit might be improved pointed to the electronic elements, best practices for engaging Spanish-speaking patrons, and the overall size or scale of the exhibit.

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[15] Given the library partners' methods of estimating the numbers of library patrons and exhibit visitors, their estimates likely do not represent unique patrons or exhibit visitors.

Discover Health programming

Attendance estimates, how programs were received, and their observed impact: In total, the 10 sites coordinated 240 *Discover Health* programs, 15 of which were bilingual, for 5,728 patrons. In general, the library partners agreed that their programs were well-received by their patrons, and all 10 observed that this programming positively impacted patrons' health learning, interest, and/or future intentions, as envisioned by the project, for example noting that patrons asked questions and/or received information about healthy living.

Most and least valuable aspects and challenges or barriers: Overall, the library partners found the opportunity to engage patrons around health and healthy living to be one of the most valuable aspects of the programming for their patrons, along with the partnerships they were able to develop with other organizations and individuals. While no one aspect stood out as least valuable, a few library partners pointed to the electronic exhibit elements or specific programs that were less impactful than others. When asked about programming challenges or barriers, half of the library partners pointed to challenges recruiting patrons and three commented on working with their AHEC partners and/or COAHEC.

Perceived learning, interest, and motivational impacts among patrons: The majority of patrons who were surveyed about a *Discover Health* program indicated they learned a lot about, were more interested in, and planned to learn more about the two key topic areas envisioned by the project: health science topics relating to their body and how to keep their body healthy. The majority of patrons also expected to make greater use of their library's resources about health/healthy living topics and felt they were motivated to consider adopting a healthier lifestyle. Most patrons also indicated that they would like to attend another program at their library in the future to learn more about health/healthy living.

Library-AHEC partnership

How partners collaborated for programming: The primary project strategy that the library and AHEC partners collaborated on was developing and implementing *Discover Health* programming.[16] Seven AHEC partners provided details about the number of programs they implemented or helped implement, with their responses ranging from three to 10 and averaging six programs per site. The largest groups of AHEC partners said they assisted with a health careers program, a kick-off event, or a health screening.

Reflections on the partnership: Most of the library and AHEC partners shared positive feedback about the experience of collaborating during *Discover Health* and what they thought their partnership could bring to community members. Half of the library partners and all but two of the AHEC partners indicated that they found their partnership very or extremely valuable, although, overall, AHEC staff found the partnership somewhat more valuable than did their library counterparts. In comparison with the library partners, who shared somewhat mixed responses, the AHEC partners also tended to more strongly agree that they had a good idea of how to partner together and that they had been able to effectively partner to implement *Discover Health* programming.

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[16] For details about the extent to which AHEC partners were involved in other aspects of the project, please see section 3.1 Extent to which AHECs partnered with libraries as envisioned.

Expectations for working together and recommendations for future collaborations:
Although most of the AHEC partners thought they would probably or definitely work with their library partner in the six months after *Discover Health*, fewer library partners agreed that they would do the same with their AHEC partner. At the time of the follow up interview, none of the six library or five AHEC partners indicated they had worked together after *Discover Health*, although some of the partners were open to an ongoing collaboration and/or described how they worked together before *Discover Health*.[17] Those who said they hadn't or likely wouldn't work together in the near term most often cited budget and staffing issues, busy schedules, distance, and/or a challenging relationship during *Discover Health*. Among those who shared recommendations for how the library-AHEC partnership might be improved in similar projects, two library and three AHEC partners cited a need for better communication between their organizations, for example suggesting having fewer point people and finding ways to increase partner responsiveness.

Partners' overall project experience

Participation in and feedback about the STAR Net community of practice website: Most of the library partners said they visited the *STAR Net* website monthly or less often, while three AHEC partners visited every couple of weeks, one visited less than monthly, and the rest did not visit the site. Among those who used the site, the AHEC partners tended to find it more useful to their participation in the *Discover Health* project than did the library partners. In their follow up interviews, three libraries and one AHEC partner said they thought they had visited *STAR Net* after their *Discover Health* tours, although one library and one AHEC partner couldn't say for certain. Those who commented on why they hadn't visited or didn't plan to visit in the future most frequently pointed to their busy schedules, and one each said they needed to orient themselves to the content of the site or suggested a community of practice would better suit their needs over social media.

Whether partners were able to acquire project support: The library and AHEC partners generally agreed that they were able to get support from the *Discover Health* project team as needed. Those who chose to elaborate generally indicated that they appreciated the team's responsiveness or noted that different needs were met at different times, although one site said they raised issues with the project team that were never resolved. The 10 AHEC partners were also asked if the COAHEC Program Office played a role in helping them plan or implement any of their *Discover Health* project activities, to which seven said yes, two said no, and one did not respond. Those who thought COAHEC helped in this way praised them for their support in clarifying project expectations, answering questions, providing contacts "*with the correct people*," assisting with exhibit delivery and set up, and/or monitoring the planning of local events.

Whether the project met partners' expectations and whether they experienced professional gains: In each case, the majority of library and AHEC partners indicated that *Discover Health* met their expectations. Looking across their responses, these partners tended to praise the project with words like "*fun*," "*great*," and/or "*enjoyable*," commented on new

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[17] Library and AHEC partners from one of the sites that didn't conduct follow up interviews indicated in their evaluation surveys that they were continuing to work together after *Discover Health*. It is not known if the partners from the other three sites continued to work together.

community connections, pointed to increased community awareness of health issues, and/or said they "*did what we planned to do*." In addition to meeting their expectations with regards to their patrons and their communities, all of the library partners and nine of the AHEC partners said they experienced at least one professional gain as a result of participating in the *Discover Health* project. Most often they pointed to networking opportunities and developing new or reinforcing existing partnerships, followed by knowledge gains in implementing aspects of the project.

Recommendations

Looking across the findings, some final recommendations are provided below, which may help inform future library-based health education projects.

- ⮑ *Establish a system to more quickly repair electronic exhibit elements.* As noted above, half of the library partners found the electronic elements like the kiosks and/or green screen display to be the least valuable part of the exhibit, with four of these partners specifically commenting on technical issues they experienced (for example, "*We had inoperable exhibit pieces from the beginning of the exhibit; and then a few weeks into the exhibit, the green screen went down and other computer pieces worked intermittently. Where is the value in that?*"). In general, the sites that had issues with these elements hosted the exhibit in the middle or latter half of the *Discover Health* tour. For future exhibit tours, particularly those that take place over multiple years, a system to evaluate and/or refurbish exhibit pieces mid-tour might be put in place, both between sites and during a site's tour period.

    - o For rural sites that may be difficult for the project team to reach, particularly during the winter months, it may prove useful to develop methods for library staff to refurbish exhibit pieces on-site, or to schedule future tours in such a way that the more rural locations, particularly those in the mountains, host the exhibit during the warmer months, when travel to and from a site is less likely to be affected by inclement weather.

    - o Although some of the sites also experienced issues with the non-electronic elements, including missing or broken pieces, these issues seemed easier to resolve, based on interview feedback from one library partner and informal feedback shared by the project team. Given that the largest group of library partners found the hands-on elements to be the most valuable aspect of the exhibit for their patrons, it seems likely that a shift to non-electronic features or displays would be valuable to future partners and patrons, while also being easier to maintain over time and geographic distance.

- ⮑ *Incorporate partners' suggestions for making future projects more inclusive of and successful in reaching Spanish-speaking community members.* A few of the library partners shared suggestions for how the exhibit, programming, and outreach efforts might have been more inclusive of or successful in reach Spanish-speaking patrons, all of which might be incorporated into future exhibits and/or partner trainings. Specifically:

- o Two library partners shared examples of how the exhibit might better reach Spanish-speaking library patrons, suggesting video subtitles and better representation, as in, "*Spanish close-caption the videos on the large video screen*" and "*More racial representation in images, models, anatomy figures--if the goal is to reach Spanish speaking populations, it's difficult when all of the figures are light-skinned. People need to see themselves represented in the displays and images to feel included.*"

- o Library partners who said they experienced difficulty addressing language and cultural considerations in their *Discover Health* programming indicated they could have done more to coordinate with local Hispanic-serving organizations or said they might have done more in this area if their staff spoke Spanish. In comparison, one library partner who felt they *had* been successful in this area attributed it to a range of factors, saying, "*We offer Spanish programming, have several staff who speak Spanish, and several staff who identify as Latino/a. We utilized all of these internal resources to connect Spanish-speaking audiences to the exhibit and to programs. Additionally, we have a great team of volunteer tutors who took their classes (English Language Learners) through the exhibit to explore the information in both English and in Spanish.*"

- o One library partner thought they might have encouraged more Spanish-speaking patrons to attend their events if they had advertised *Discover Health* on Spanish-language radio, saying, "*I believe that is a media accessed by our Spanish-speakers.*"

- ➲ *Develop smaller exhibit pieces, to better accommodate the needs of smaller libraries.* Some of the smaller libraries found the exhibit to be somewhat too large for their sites, which led to issues including increased noise and the displacement of open seating areas. As one library partner noted, it would have been helpful if the exhibit had been designed "*from a small, rural library's perspective,*" adding that *"obviously, this exhibit was designed for large libraries with lots of space. The shipping container is a perfect example. It would not fit through our door. Consequently, we had to unpack and pack the container outside on the sidewalk.*" Future exhibits that prioritize the inclusion of small, rural libraries might take these comments into account by developing smaller exhibit pieces and/or by doing more to include smaller libraries in the exhibit development process, to better address their interests, needs, and concerns in the planning stage.

- ➲ *Incorporate partner feedback to further improve library-AHEC relationships and encourage a strong community of practice, both online and offline.* As noted earlier in this Discussion, most of the library and AHEC partners shared positive feedback about the experience of collaborating during *Discover Health* and what they thought their partnership could bring to community members. Among those who found the partnership very or extremely valuable, library partners observed that the AHECs were able to contribute in an area outside their expertise (as in, "*[AHEC staff] were knowledgeable about providing medical services and things that Library partners might not know*"), while AHEC partners noted that working with their library partners gave them increased access to local community members (as in, "*Everybody goes to the*

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library, so it kind of breaks down some of those access barriers … The libraries are very community-oriented places, and those are the people we're trying to reach").

Although much of the feedback about the partnership model was encouraging, some library and AHEC partners were less enthusiastic than others. The suggestions below might be incorporated into future projects in an attempt to further improve library-AHEC partnerships.

o   Among those who shared recommendations for how the library-AHEC partnership might be improved, the largest groups of library and AHEC partners cited a need for better communication between their organizations. One way to encourage communication on future projects might be to hold any trainings and/or Community Dialogues closer to the beginning of each site's period of collaboration, both in terms of connecting the right staff and helping the partners feel comfortable working together. As one AHEC partner noted, "*There was such a long gap [after the training], and when you're talking about libraries and funding, staff changes quite a bit in some of them … I think without that long gap, and with more one-on-one with those individuals beforehand, [it] would have been more beneficial.*"

o   Although this was not a suggestion from the partners, it might be helpful to limit the number of libraries an AHEC partner can work with over a set period of time, so as not to potentially overburden any one partner.

o   To further streamline and enrichen partners' project experience, it may prove more efficient and effective to have library and AHEC partners participate in one primary community of practice website, rather than asking them to use both iMeet Central and *STAR Net*. In addition to increasing the number of partners who participate in the primary community of practice, this may also increase the frequency with which partners use the site, both during and after the project.

o   Finally, for future projects, it may be worth considering the pros and cons of designing a library-based health education project that can be simultaneously implemented at multiple sites, so as to encourage a stronger community of practice between all of the library and AHEC partners. Assuming key components of a project like *Discover Health* could be configured to run concurrently at multiple libraries, this approach could allow all partners to share in an initial training period, after which individual library-AHEC partners could launch their regional programs, beginning with a local Community Dialogue to help identify site-specific issues. All project partners could then reconvene virtually, in real-time and on an ongoing basis, to communicate, troubleshoot, and share resources through an online platform such as *STAR Net*. To realistically implement this synchronous approach would likely require the project to rely on fewer larger exhibit pieces, which some libraries indicated were challenging to accommodate, and instead prioritize smaller pieces and customizable educational materials and programs that could be tailored to the needs and interests of each local library and AHEC region.

- ⮕ ***Inform project and evaluation planning with current informal STEM and health and learning theory and research, Participatory Action Research and Participatory Evaluation, and STEM Learning Ecosystems frameworks.*** Although little has been reported about the impacts of health-related exhibits on patrons in the library setting, in the years since *Discover Health* launched in 2014 and concluded in 2020, the need and opportunities for health-focused resources and programming in the library setting have been increasingly well documented, recognizing both the role public libraries can play in becoming partners for improving patron health and why they are well-positioned in this regard (Morgan et al., 2018; Rubenstein, 2018; Luo, 2018; Dupuis et al., 2018; Whiteman et al., 2018; Carnes, 2019; Hines-Martin et al., 2020; Philin et al. 2019).[18]

  In light of the project's health focus and the opportunities for libraries to help improve patron health, future evaluations of library-based health-focused exhibits might draw more extensively on current theory and research relating not only to informal STEM engagement, learning, interest, motivation and intentions – as outlined in the informal science learning strands and logic model that influenced the project planning – but also the personal health dimensions of these outcomes. Further consideration of theory and research in the health promotion and disease prevention fields, for example, would likely strengthen future project teams' efforts to develop and evaluate patrons' health-related outcomes. Additionally, given the *Discover Health* project's consistent focus on library and AHEC partnerships, and its' increased focus on the use of Community Dialogues during the grant period, future project and evaluation designs might also draw on more current work in Participatory Action Research, Participatory Evaluation, and STEM Learning Ecosystems to further inform refinements to these approaches.

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[18]Dupuis, R., Morgan, A. U., D'Alonzo, B., Epstein, C., Klusaritz, H., & Cannuscio, C. C. (2018). Peer reviewed: Public libraries as partners for health. *Preventing chronic disease*, *15*.

Hines-Martin, V., Cox, F., & Cunningham, H. (Eds.). (2020). *Library Collaborations and Community Partnerships: Enhancing Health and Quality of Life*. Routledge; Luo, L. (2018). Health information programming in public libraries: a content analysis. *Public Library Quarterly*, *37*(3), 233-247.

Morgan, A. U., D'Alonzo, B. A., Dupuis, R., Whiteman, E. D., Kallem, S., McClintock, A., & Cannuscio, C. C. (2018). Public library staff as community health partners: training program design and evaluation. *Health promotion practice*, *19*(3), 361-368.

Philbin, M. M., Parker, C. M., Flaherty, M. G., & Hirsch, J. S. (2019). Public libraries: A community-level resource to advance population health. *Journal of community health*, *44*(1), 192-199.

Rubenstein, E. L. (2018). "I Want to Provide Patrons with Good Information": Public library staff as health information facilitators. *The Library Quarterly*, *88*(2), 125-141.

Whiteman, E. D., Dupuis, R., Morgan, A. U., D'Alonzo, B., Epstein, C., Klusaritz, H., & Cannuscio, C. C. (2018). Peer reviewed: Public libraries as partners for health. *Preventing chronic disease*, *15*.

Appendix 1. Evaluation report of *Discover Health* programs implemented at three library sites

Introduction

Discover Health/Descubre la Salud (*Discover Health*) is a bilingual English/Spanish informal health education project funded by the Science Education Partnership Award (SEPA) program at the National Institutes of Health (NIH). The project represents a partnership between the Colorado Area Health Education Center (COAHEC) at the Anschutz Medical Campus in Denver, and the STAR Library Network (*STAR Net*) managed by the Space Science Institute's National Center for Interactive Learning.[1]

The project's main deliverables include an interactive library exhibit supported by community education programs and resources, designed to engage library patrons within the state of Colorado to learn about key public health issues in these communities related to cardiovascular health, diabetes, and obesity. The project is also designed to engage underserved Hispanic and rural communities with the exhibit and programming, and to encourage youth from these communities to pursue careers in health care professions.

Evaluation overview

As a condition of the project's NIH funding, *Discover Health* further includes an external evaluation conducted by an independent evaluation firm, Knight Williams Inc., which specializes in the development and evaluation of health and science multimedia and outreach projects targeting diverse audiences. The goal of the evaluation is to assess the effectiveness of the *Discover Health* library exhibit and related community programs and resources in engaging patrons, as well as the factors that contribute to successful engagement with and learning from these components.

The summative evaluation includes a cross-site analysis of the *Discover Health* exhibit and programing implemented at 10 library sites, as well as a case study of the exhibit at the final library site. This report presents findings from an evaluation of the *Discover Health* programs implemented at the final three of the 10 library sites to host the exhibit, spanning the last 14 months of the *Discover Health* project.

At each site, partners were expected to implement at least 10 *Discover Health* programs for patrons. As noted in the project's Requirements Binder, "*The 10 programs should be for different age groups, including one opening event, three public programs for adults, three public*

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[1] *STAR Net* is a production of the Space Science Institute's National Center for Interactive Learning (NCIL) in collaboration with the American Library Association, the Lunar and Planetary Institute, and the Afterschool Alliance. Major funding is provided by the National Science Foundation, NASA, and the National Institutes of Health (SEPA). *STAR Net* focuses on helping library professionals build their STEM skills by providing "science-technology activities and resources" (STAR) and training to use those resources. *STAR Net* includes a STEM Activity Clearinghouse, blogs, a webinar series, workshops at conferences, and a monthly e-newsletter. Partners include the American Library Association, Association of Rural and Small Libraries, Collaborative Summer Library Program, Chief Officers of State Library Agencies, Afterschool Alliance, Lunar and Planetary Institute, Area Health Education Centers, and others.

programs for families, and three programs for out of school K-12 children (one of these should be an after-school program). Any one of these programs may be combined with the opening event."

During the last 14 months of the project, the evaluation team coordinated with library partners from the Delta, Rifle, and Penrose libraries to administer a one-page program feedback survey to patrons who attended their *Discover Health* programs. Together, the three library partners implemented surveys at 11 of the 109 programs they implemented.[2] A total of 113 patrons attended these 11 programs, with each program being attended by between 3 and 18 patrons, or an average of 10 adult patrons per event.

The evaluation focused on the short term personal health knowledge, interest, and motivation outcomes described in the *Discover Health* program logic model shown in Image 1. The project team envisioned that, as a result of attending a *Discover Health* program, patrons would have increased knowledge, interest, and motivation to learn more about health science topics relating to their bodies and how to keep them healthy and would also feel motivated to make greater use of their library's resources about health/healthy living topic, attend other similar programs at the library, and consider adopting a healthier lifestyle.
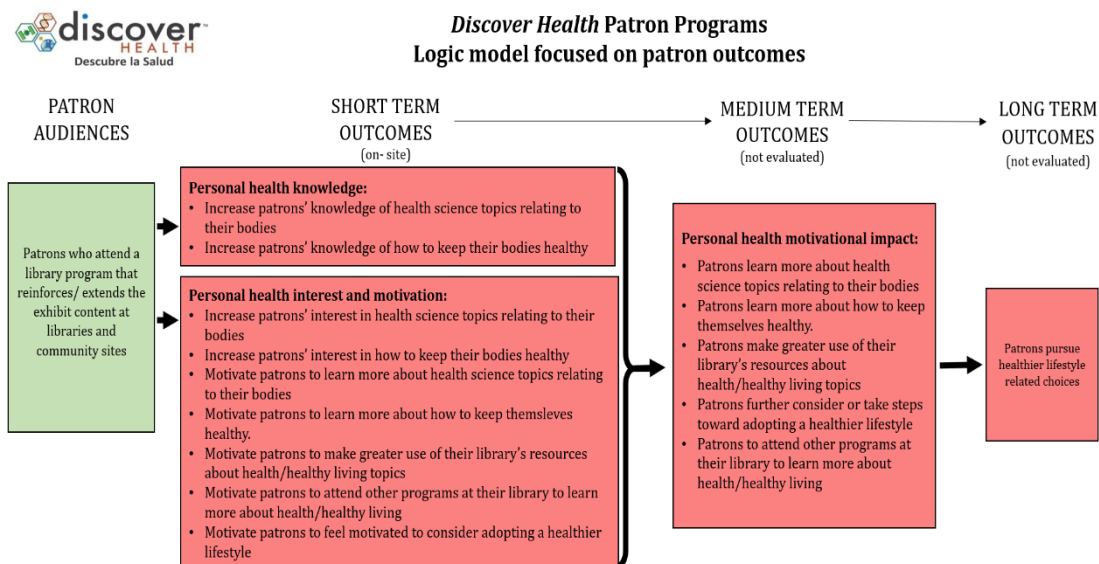

Image 1. *Discover Health* program logic model of patron outcomes

Method

Library staff at Delta, Rifle, and Penrose were asked to administer the program feedback survey at the end of at least five of their *Discover Health* programs for adults. As a result, the Delta library collected surveys from two programs, the Rifle library collected surveys from six programs, and the Penrose library collected surveys from three programs.

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[2] The Delta library held the majority of these 109 programs, a total of 88, of which 52 were school-based.

Staff at each library were given the following instructions for administering the survey:

Please invite adult participants (ages 18 years and older) to complete the survey at the end of the program. It is important to let participants know that filling out this survey is voluntary, that there are no right or wrong answers, and that the Discover Health team is just looking for their frank and honest feedback. In addition, please let them know that they do not need to provide their names or any other identifying information. Their responses are anonymous and will be combined with those from participants in other programs.

Additionally, for each event where they administered the program feedback survey, library staff were asked to complete an accompanying cover sheet, which was designed to gather basic programmatic information about attendance, content, promotion, and implementation.
To help offset the burden of the evaluation requests, sites were provided with an honorarium for each program where they administered and returned surveys.

Patron background information

A total of 42 patrons completed the survey, for a response rate of 37% of the 113 adult patrons who attended a program where the survey was administered.[3] Table 1 shows the demographics and background information for the patrons who provided this information. Most of the respondents were female and most were White. Figure 1 shows the age distribution of patrons, which ranged from 23 to 77, and the average age was 46.

Table 1. Patrons' demographic and background information (n=39)

Demographic/ background factor	Categories	Patrons
Gender	Female	85%
	Male	15%
	Mean	46
Age	Range	23-77
	White	87%
Racial/ethnic group	Hispanic	3%
	African-American/Black	0%
	Asian	0%
	Native American	5%
	Multiracial	3%
	Oceanian	3%

Image 2. Infant CPR class held at Rifle library

Figure 1. Patrons' age distribution (n=39)

28%	13%	13%	26%	15%	5%
21-30	31-40	41-50	51-60	61-70	71-80

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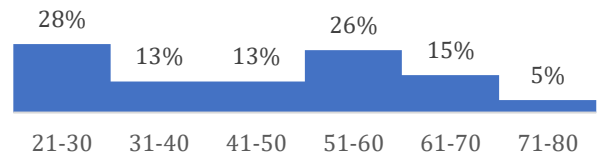
[3] Although the survey was translated into Spanish and made available to patrons, all of the surveys were completed in English.
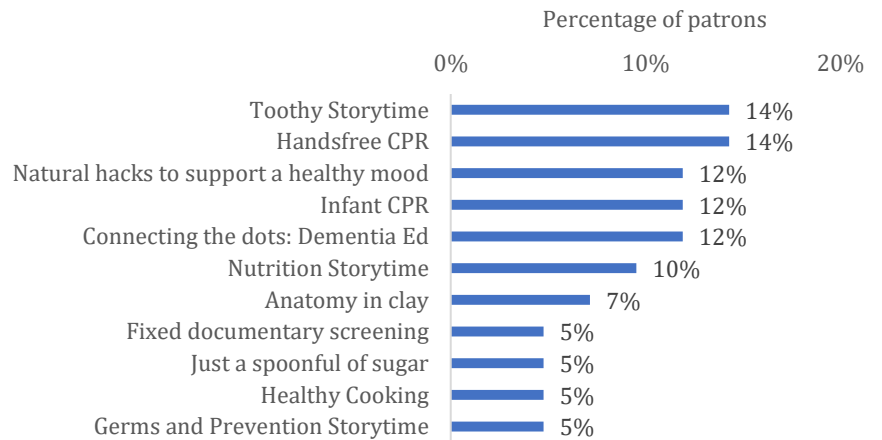
Findings

Part 1. *Discover Health* program patrons attended and how they heard about them

1.1 Programs patrons attended

Figure 2 shows the 11 different programs that patrons attended, with no one program being identified by a majority of the respondents. Based on the available program descriptions, most of the programs focused on the *Discover Health* theme of how to keep the body healthy while a few focused on the theme of health science topics relating to the body, although the program topics varied widely and included dental health, CPR, diet and nutrition, dementia, anatomy, and germ prevention.
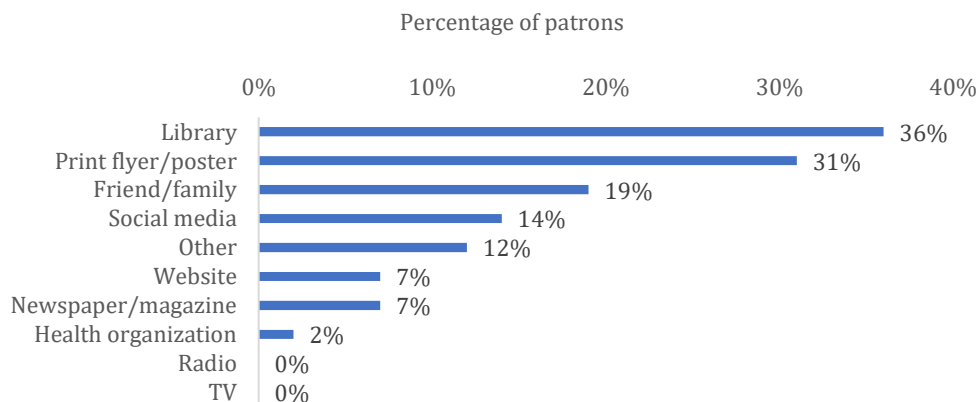
Figure 2. Titles of the *Discover Health* program that patrons attended (N=42)

Percentage of patrons

Toothy Storytime	14%
Handsfree CPR	14%
Natural hacks to support a healthy mood	12%
Infant CPR	12%
Connecting the dots: Dementia Ed	12%
Nutrition Storytime	10%
Anatomy in clay	7%
Fixed documentary screening	5%
Just a spoonful of sugar	5%
Healthy Cooking	5%
Germs and Prevention Storytime	5%

1.2 How patrons heard about the program

Figure 3 shows how patrons said they heard about the program they attended. Roughly one-third each of patrons heard about the program from the library and/or from a print flyer/poster, while about one-fifth heard about it from a friend or family member. Smaller percentages of patrons heard about the program via social media, websites (specifically library websites), newspapers/magazines, or their local health organization, while none heard about it through radio or television promotions. Other sources of hearing about the program were from other library or community programs, an email, or another individual.
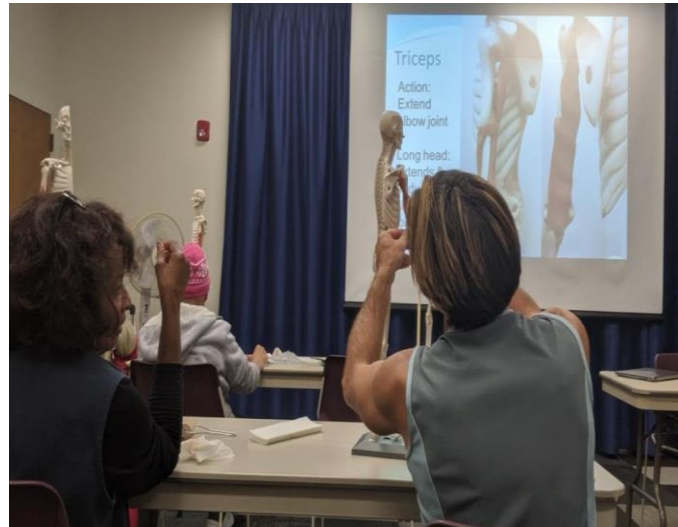
Figure 3. How patrons heard about the program (N=42)

Percentage of patrons

Library	36%
Print flyer/poster	31%
Friend/family	19%
Social media	14%
Other	12%
Website	7%
Newspaper/magazine	7%
Health organization	2%
Radio	0%
TV	0%

Examples of three of the evaluated programs and the accompanying print flyers promoting the programs are shown below in Images 3-5.


Images 3-5. Programs held at Penrose and Rifle libraries

Part 2. Patrons' prior *Discover Health* program and exhibit experience

2.1 Number of health programs patrons previously attended

Figure 4 shows how many programs patrons previously attended at the library that related to health or healthy living. About two-fifths of the patrons said they had attended at least one program, and half of these respondents reported that they had attended three or more programs.

Figure 4. Number of programs related to health/healthy living previously attended at the library (N=42)

Percentage of patrons

None	57%
1 or 2	21%
3 or more	21%
Don't Know	0%
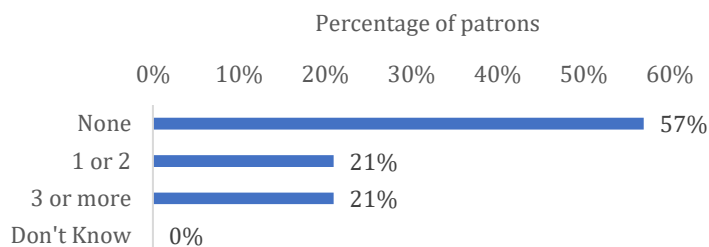
2.2 Patrons' prior experience with the *Discover Health* exhibit

Figure 5 shows the percentage of patrons who recalled looking at the *Discover Health* exhibit at the library where their program was hosted. Exactly half of the patrons (50%) indicated that they did recall seeing the exhibit.

Figure 5. Whether patrons recalled looking at the *Discover Health* exhibit (N=42)
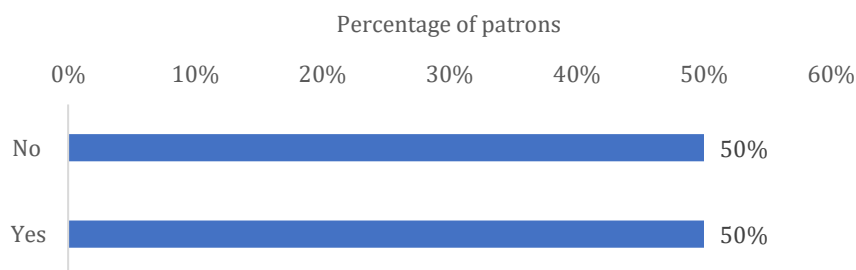
Percentage of patrons

No	50%
Yes	50%

When invited to describe the most interesting thing they learned from the exhibit, a few patrons pointed to the overall experience, as in "*Too many to count,*" "*A lot,*" and "*My kids loved it!*" Others pointed to something they learned from a specific exhibit piece, as in:
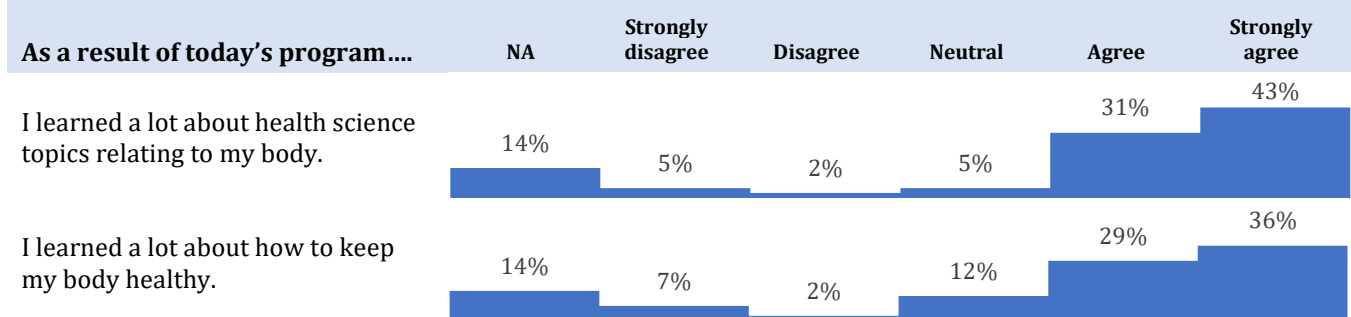
➢ *My liver is SO high up in my body!*
➢ *The heart.*
➢ *Biographies of health professionals.*
➢ *Aspiration of the heart muscles.*
➢ *How muscles are formed on the skeletal of the body.*
➢ *How speed affects humans.*

Part 3. Perceived learning, interest, and motivational impacts of the program

3.1 How much patrons' felt they learned from the program

Figure 6 shows the extent to which patrons agreed or disagreed with statements about the amount they learned from the program they attended. Overall, the majority of patrons indicated they learned about the two main ideas expressed in the *Discover Health* program logic model. Specifically, three-quarters agreed or strongly agreed that they learned a lot about health science topics and two-thirds agreed or strongly agreed that they learned a lot about how to keep their body healthy.

Figure 6. Patrons' reflections on the impact of the program on their learning (N=42)

As a result of today's program….	NA	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I learned a lot about health science topics relating to my body.	14%	5%	2%	5%	31%	43%
I learned a lot about how to keep my body healthy.	14%	7%	2%	12%	29%	36%

3.2 Most interesting things patrons learned from the program

Figure 7 shows what patrons felt was the most interesting thing they learned from the program they attended. More than half pointed to information they learned how to keep the body healthy, while more than one-quarter pointed to information they learned about health science topics relating to the body.

Figure 7. Most interesting thing patrons learned from the *Discover Health* program they attended (n=35)

Percentage of patrons

How to keep the body healthy	57%
Health science topics relating to the body	26%
Other	11%
All of it/A lot	6%
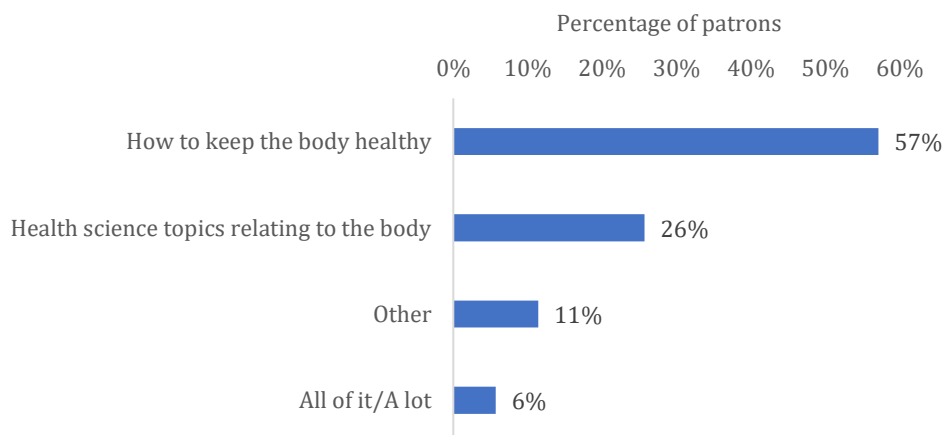
Examples of the responses that patrons provided in each area are included below.

How to keep the body healthy (57%)
➢ *How much [sugar] is in drink*
➢ *Awareness of names of sugar manufacturers use.*
➢ *Adding/creating orange sauce for fish dishes*
➢ *To know when it is appropriate to do compressions*
➢ *How fast to go*
➢ *How to be effective, CPR harder than it looks*
➢ *How to do CPR on infant or baby*
➢ *A few new fruits and vegetables*
➢ *Learning different fruits and veggies*
➢ *That wheat is bad :(*
➢ *Magnesium necessity*
➢ *Child safety tips*
➢ *Top 3 choking hazards*
➢ *Dealing with choking*
➢ *Fighting choking*
➢ *You should brush your teeth twice a day*
➢ *Resources about caring for dementia patients*

Health science topics relating to the body (26%)
➢ *About neurotransmitters*
➢ *How muscles move. Oh the things I've learned at the library) !*
➢ *How the muscles are interrelated*
➢ *How molding clay benefits learning through motor functioning skills*
➢ *About computer/brain interfaces*
➢ *Which side of the brain goes first*
➢ *Alzheimer's disease is dementia*
➢ *Can only be diagnosed by autopsy. (Not all researchers agree)*

Other (11%)
➢ *Very well done, lots of preplanning should have brought kids back together, to reinforce learned info*
➢ *Blending methods and timing*
➢ *How many teeth crocodiles have*
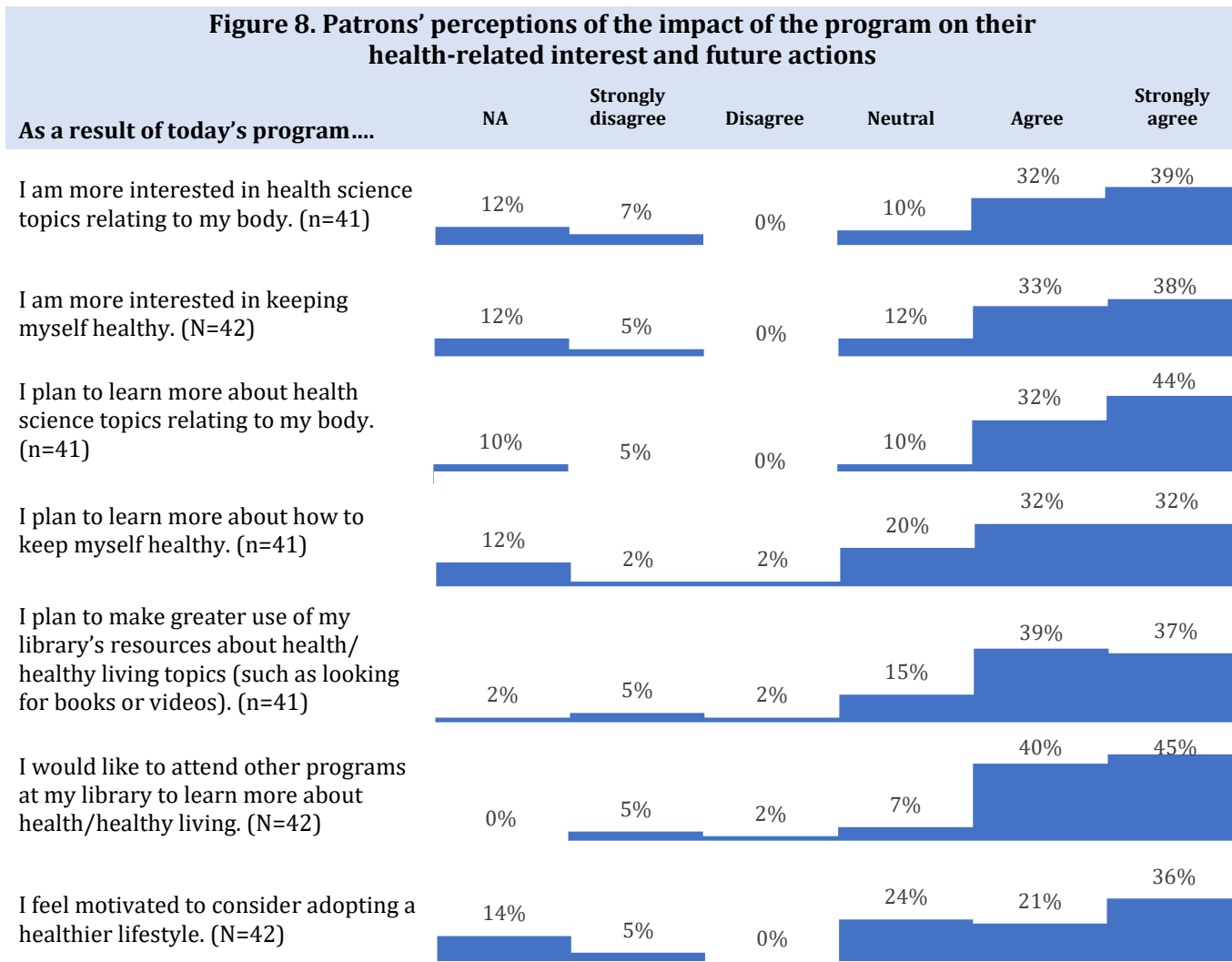➢ *Crocodiles need big toothbrushes :)*

All of it/a lot (6%)
➢ *All of it*
➢ *Lots*

3.3 Patrons' perceptions of the impact of the program on their health-related interest and future intentions

Figure 8 shows the extent to which patrons agreed or disagreed with statements about the impact of the program on their health-related interest and intentions of engaging in health-related activities in the future. Overall, the majority of patrons indicated the program impacted them in the ways described in the *Discover Health* program logic model. Immediately following the program, nearly three-quarters of the patrons indicated they were more interested in health science topics relating to their body and in keeping themselves healthy. With respect to future intentions to learn about these topics, three-quarters indicated they planned to learn more about science topics relating to their body, while two-thirds indicated they planned to learn more about how to keep themselves healthy. Three-quarters of the patrons indicated they planned to make greater use of their library's resources about health/healthy living topics and more than four-fifths indicated they would like to attend another program at their library to learn more about health/healthy living. Finally, more than half felt motivated to consider adopting a healthier lifestyle.

Figure 8. Patrons' perceptions of the impact of the program on their health-related interest and future actions

As a result of today's program….	NA	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I am more interested in health science topics relating to my body. (n=41)	12%	7%	0%	10%	32%	39%
I am more interested in keeping myself healthy. (N=42)	12%	5%	0%	12%	33%	38%
I plan to learn more about health science topics relating to my body. (n=41)	10%	5%	0%	10%	32%	44%
I plan to learn more about how to keep myself healthy. (n=41)	12%	2%	2%	20%	32%	32%
I plan to make greater use of my library's resources about health/ healthy living topics (such as looking for books or videos). (n=41)	2%	5%	2%	15%	39%	37%
I would like to attend other programs at my library to learn more about health/healthy living. (N=42)	0%	5%	2%	7%	40%	45%
I feel motivated to consider adopting a healthier lifestyle. (N=42)	14%	5%	0%	24%	21%	36%

Conclusions

Programs patrons attended and how heard about
Among the 11 different programs that patrons attended, none were attended by a majority of the respondents who completed surveys. Based on the available descriptions, most of the programs focused on the *Discover Health* theme of how to keep the body healthy while a few focused on health science topics relating to the body, although the program topics varied widely and included dental health, CPR, diet/nutrition, dementia, anatomy, and germ prevention.

Roughly a third each of the patrons heard about the program from the library and/or a print flyer/poster, while about one-fifth heard about it from a friend or family member. Relatively few heard about the program via social media, websites, newspapers/magazines, or their local health organization, while none heard about it through radio or television promotions. Other sources of hearing about the program were from other library or community programs, an email, or another individual.

Patrons' prior Discover Health program and exhibit experience
About two-fifths of the patrons said they had previously attended at least one program at their library related to health or healthy living, and half of these respondents reported they had attended three or more programs. Exactly half of the patrons indicated that they recalled seeing the *Discover Health* exhibit at the library where their program was hosted. When invited to describe the most interesting thing they learned from the exhibit, a few patrons pointed to the overall experience while others pointed to something they learned from a specific exhibit piece.

Patrons' perceived learning, interest, and motivational impacts of the program
Overall, the majority of patrons indicated they learned about the two main ideas expressed in the *Discover Health* program logic model, as three-quarters agreed or strongly agreed that they learned a lot about health science topics relating to their body and two-thirds agreed or strongly agreed that they learned a lot about how to keep their body healthy. When asked to describe the most interesting thing they learned from the program, more than half pointed to information they learned how to keep the body healthy, while more than one-quarter pointed to information they learned about health science topics related to the body.

The majority of patrons also indicated the program impacted them in the ways described in the *Discover Health* program logic model with respect to their health-related interests and intentions of engaging in health-related activities in the future. Immediately following the program, about three-quarters of the patrons indicated they: were more interested in learning about health science topics relating to their body; were more interested in learning about keeping themselves healthy; planned to learn more about science topics relating to their body; and planned to make greater use of their library's resources about health/healthy living topics. A slightly smaller group, two-thirds of the patrons, indicated they planned to learn more about how to keep themselves healthy, while more than half said they felt motivated to consider adopting a healthier lifestyle. Finally, as an indication of their interest in attending more *Discover Health*-type programming in the future, more than four-fifths of patrons indicated they would like to attend another program at their library to learn more about health/healthy living.