



# Passport to Health

## Baseline Evaluation Report

### Process Evaluation Phase 1: Program Development & Baseline Climate Assessment

Submitted February 2010 By:



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# Executive Summary

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In Spring 2009, the Denver Museum of Nature & Science (Museum) contracted with JVA Consulting, LLC (JVA) to conduct a comprehensive process and outcome evaluation of the Passport to Health Program (P2H). The Museum designed P2H, a three-year program funded by the Colorado Health Foundation (the Foundation), to improve health outcomes for fifth-grade students as well as their families and teachers throughout the Denver metro area. This evaluation report offers the findings of the baseline process evaluation and climate assessment, which will serve as a foundation for future evaluation efforts. Using various evaluation approaches, including interviews, focus groups, surveys and secondary data collection. JVA identified the following findings and recommendations, detailed below.

## Baseline Process Evaluation

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The baseline process evaluation documented the intended P2H program design so that future process evaluation efforts can detect where and why the program diverged. A logic model appears on page 8 of the final report and provides a concrete graphical image of the intended program design. Future evaluation efforts will use this as a standard when documenting program changes.

In addition to the presentation of the logic model, the first phase of this process evaluation focused on the program development and implementation processes, and identified challenges and enablers outlined below.

### ***Findings and recommendations from development and implementation***

#### **Challenges**

##### ***School recruitment and partnerships proved difficult***

Despite extensive efforts by the Museum to gather participation needs from potential school stakeholders prior to developing and implementing P2H, school recruitment and partnerships proved difficult.

*Recommendation: Engage both schools and districts more effectively from the start to learn about and address internal challenges to participating in P2H.*

##### ***Specific activity development and timelines were challenging***

Museum educators, despite being satisfied with the overall program development processes, expressed concern that developments and timelines were challenging.

*Recommendation: Implement measures that will allow the Museum to learn from specific activity development failures so in the future the Museum can reduce frustration among educators.*

##### ***Program complexity sometimes led to role confusion***

Stakeholders knew their role in program implementation and the overall timeline for the project but those outside of youth and teacher programs did not have a clear understanding of program development and P2H administrative staff roles.

*Recommendation: The P2H team should provide stakeholders with documents that help to more clearly define staff roles.*

## **Enablers**

### ***Organizational characteristics enable quality and cohesive program development***

A participatory environment at the Museum, consistent program development approaches and a strong emphasis on utilizing existing resources made the P2H development process efficient and collaborative.

*Recommendation: The Museum should take steps to cultivate its participatory environment.*

### ***Specific project characteristics allowed the team to think big***

Extensive resources and a link to the Museum's larger Health Science initiative and new exhibit, *Expedition Health*, made it possible for multiple departments to work together on P2H and to "think big" when developing the program and its individual components.

*Recommendations: The Museum should consider using P2H as a model for developing future "holistic" programs that address multiple audiences with multiple program components.*

*The Museum should encourage funders to support large initiatives or to link their funding to large initiatives for greater impact and efficiency.*

### ***Individual leadership and project management skills brought P2H together***

Finally, the P2H program coordinator and project management strategies, including external communication approaches, have been primary enablers of the P2H program.

*Recommendation: Continue to utilize project coordinators and project management approaches in future projects.*

## **Baseline Climate Assessment**

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JVA conducted a baseline climate assessment to collect information about the healthy living environment available at and around schools participating in P2H. This assessment identified related programs and resources that are currently available to students, teachers and families that might influence the outcomes of P2H by surveying teachers from each school and mapping assets close to each school. Based on the findings of the climate assessment, JVA recognized the following implications for the P2H evaluation.

- It is important to note that each school has different internal and external resources for recreation and health sciences. JVA will utilize the information collected in this baseline assessment to take these differences into account when analyzing outcome data. Potential approaches may include comparing the results of schools with additional resources to those that have limited or no resources and using statistical techniques to take into account the amount of additional treatment outside of P2H that students are receiving.
- Differences in district curriculum, particularly in the timing that health science content is delivered, are likely to have an impact on the results of student pre- and post-tests, and teacher outcomes. JVA will control for the timing of health science content delivery when analyzing teacher and student data.
- It is difficult to account for teaching style differences, especially when teachers are a population the Museum hopes to influence with this program. However, JVA will make sure to note potential differences among teachers and to try to account for these differences when analyzing and comparing student outcome data.

## **Background and Purpose**

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In Spring 2009, the Denver Museum of Nature & Science (Museum) opened a new health science exhibit, *Expedition Health*, which stems from the Museum's new Health Science Initiative and replaces the *Hall of Life* exhibit that was an integral part of the Museum for many years. To add a key education component to complement this exhibit, the Colorado Health Foundation (the Foundation) provided a generous grant to fund the development and implementation of the Passport to Health program (P2H). P2H is a three-year program designed by the Museum to help improve health outcomes for fifth-grade students as well as their families and teachers at 30 low-income schools in the Denver metro area. The Museum contracted with JVA Consulting, LLC (JVA) to conduct a comprehensive evaluation of P2H, including two key components: a process evaluation to examine the program design and implementation, and an outcomes evaluation to measure the program's abilities to meet its overall objectives. JVA is utilizing multiple methods to collect both quantitative and qualitative data that will provide the Museum, the Foundation and other stakeholders with important insight into the progress of the program and its outcomes. The evaluation and its ongoing findings will enable the Museum to make informed decisions in program refinement and track ongoing program accomplishments.

This evaluation report provides a baseline for the overall P2H evaluation. The report begins by describing the findings of the baseline process evaluation, which includes a map of the overall program, the development process for each program component and a synthesis of feedback collected from stakeholders involved in the development process. Next, this report describes the findings of the baseline climate assessment, which details the current environment at each participating P2H school. Together, these baseline assessments provide the Museum with a road map of the program's development process as well as insight into the program implementation environment.

# Baseline Process Evaluation

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The purpose of the first phase of the baseline evaluation was to document the P2H program and the processes that went into developing it. The baseline process evaluation addresses two key issues. First, it aims to document program design and map program implementation so that later, the Museum can assess the fidelity of implementation and its alignment with program theory. Second, the baseline process evaluation was designed to determine the barriers and enablers that influenced P2H's development so that the Museum and the Foundation can utilize this information to develop programs in the future. This baseline evaluation will serve as the foundation for all future components of the process evaluation.

## *Key Questions:*

1. What is the intended program design?
2. What challenges and enablers impacted program development and implementation?

## Methods

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JVA worked with key Museum staff to determine the key stakeholders to involve in the process evaluation. These stakeholders included program staff as well as other Museum staff who were responsible for developing products or services to support P2H. The process evaluation involved three core components, which are explained in greater detail below:

- Document review
- Key informant interviews
- Focus groups

### ***Document review***

To document both the P2H design and development process, JVA reviewed program design materials, administrative updates and program planning documents. Reviewing these documents provided JVA with in-depth insight into the intended design of the program as well as the process that went into fully designing and implementing each program component. These documents were reviewed to identify program components, to identify the flow of program development and to understand the systems that were utilized to develop and implement the P2H components. It is difficult to identify all relevant program documents, so as additional documents become pertinent, JVA will review them and use the insight gained from them to supplement and sharpen the findings described in this document.

### ***Key informant interviews***

To collect more in-depth feedback, JVA conducted comprehensive interviews with key stakeholders from two groups: staff members directly responsible for managing the development of the P2H program and staff members with departments responsible for providing products or services that support P2H. The first set of interviews helped JVA identify program components, while both sets of interviews collected information about the barriers and enablers of program development and implementation.

### Stakeholders managing program development

JVA conducted three one-hour, face-to-face interviews with Museum staff directly responsible for managing the development of specific P2H components. The following table describes the stakeholders involved in these interviews.

Stakeholder Type	Interviewee	Role
Overall project management	Renee Guerrero, Project Coordinator for Passport to Health	Overall project management, including scope, schedule and budget  Ancillary service development: <ul style="list-style-type: none"> <li>• P2H journals</li> <li>• School recruitment &amp; retention</li> <li>• Memberships</li> </ul> Renee also helped lead some program development for the Family Health Night and Day.
School programs	Jill Katzenberger, School Programs Project Coordinator  Karen Hays, School Programs Manager	Development of school and Museum based programs, including: <ul style="list-style-type: none"> <li>• Pre-visit</li> <li>• On-site class</li> <li>• Family Health Night at school</li> <li>• Family Health Day at the Museum</li> </ul>
Teacher programs	Meg John, Teacher Programs Coordinator  Kate Geer, Assistant Teacher Programs Coordinator	Teacher professional development, including: <ul style="list-style-type: none"> <li>• On-site workshop</li> <li>• Online guide</li> <li>• Interim sessions (online forums, Webinars, etc.)</li> </ul>

The interview script for these individuals (available in Appendix I) was designed to collect feedback about the development process for each component that individuals were involved in as well as the overall program. It asks these stakeholders to identify the systems that were utilized, the components of the development process that worked well, the components that provided the greatest challenges and opportunities for lessons learned through this development process.

### Stakeholders from external departments supporting P2H

JVA conducted seven, half-hour phone interviews in October and November 2009 with Museum staff who were involved in providing products or services that support P2H. These individuals were identified by the P2H project coordinator and represent a broad range of individuals at various levels who were outside the immediate P2H project team but were still impacted by the project. The following table describes the stakeholders interviewed including their roles at the time of the interview:

Interviewee	Title/Department	Nature of Involvement
Beth Bavolek	Office Manager for Youth and Teacher Programs	Beth helped support all programs that fall in youth and teacher programs. She generally tracks grants and plans special events for the department. Initially, she tracked the P2H grant, but because of the size of this project, P2H eventually hired its own administrative staff. Once the P2H administrative staff member was hired, Beth trained her.
MaryAnn Stack	Director of Technology Development	MaryAnn is responsible for managing new technological applications that support the Museum's operations. All of the P2H technological needs were configured through her group, which had to accommodate P2H by configuring the reservation system to input and report specifically for P2H, as well as coordinate all the online material and activities for the teacher professional development component.
Meadow Nook	Marketing Coordinator	Meadow was responsible for working with the P2H project manager to design all the marketing material needed for P2H, including but not limited to all the membership brochures, the journal and the program displays.
Nancy Walsh	Visitor Programs Educator for Health Gallery Programs	Nancy was one of four individuals on the core team for developing <i>Expedition Health</i> , and she worked on the Foundation grant application for the exhibit, which resulted in funding for P2H.
Polly Andrews	Director of Youth and Teacher Programs	Polly oversees all youth and teacher programs and initiated P2H when the core team came to her saying that a funder wanted a school-based program. She was responsible for developing the sketch of the initial P2H concept.
Rachel Olson	Graphic Designer	Rachel is a graphic designer who worked on a number of the design projects to help support the P2H marketing material.
Ruth Bengtson	Outreach Reservations	Ruth worked with the P2H administrative assistant to advise and coordinate the on-site reservations.

The interview script for these individuals (available in Appendix II) was designed to collect feedback about their experiences with the P2H development process. It asks stakeholders to identify the systems that were utilized, the components of the development process that worked well, the components that provided the greatest challenges and opportunities for lessons learned through this development process.

### **Focus groups**

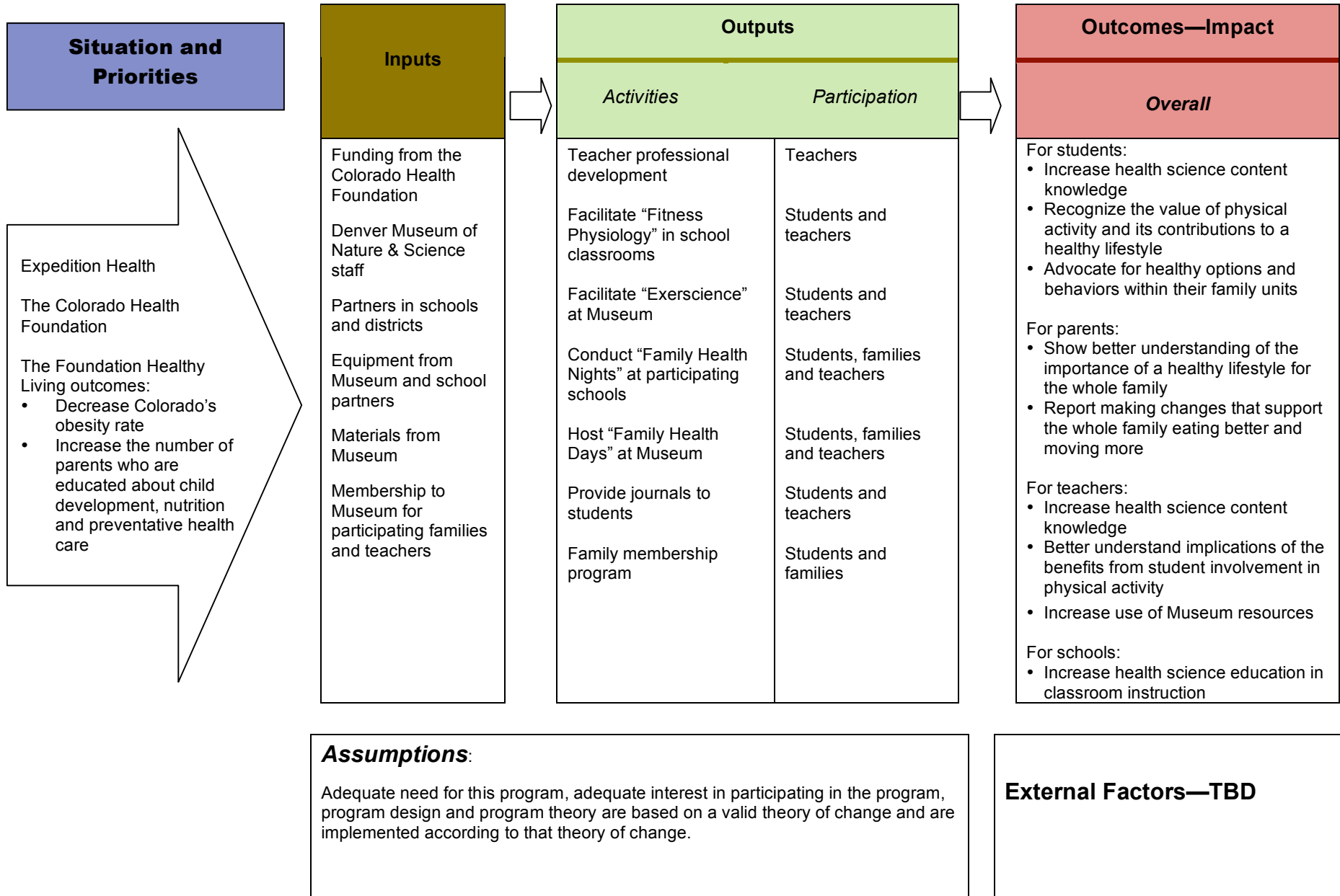
Finally, to collect information for Museum educators and other support staff responsible for assisting in the development and delivery of P2H, JVA conducted two focus groups with these stakeholders. Two one-hour focus groups were conducted at the Museum, following the first major prototype of the on-site course. Seven stakeholders participated in these group interviews. Like with the one-on-one interviews, these focus groups (script available in Appendix III) focused on the components of the program development effort as well as feedback about the overall development process and its strengths and weaknesses.



***Study limitations***

These methods were selected to obtain broad information about the components of P2H and the development of those components, it is important to note, however, that there are limitations to each method. Although interviews and focus groups were conducted with almost all key staff associated with P2H, not everyone was included, so it is important to keep in mind that the findings represent the unique situations and perspectives of only those individuals who did participate. Additionally, focus groups are a specialized method to learn in-depth information from a small number of people and to provide a setting to clarify responses, probe for additional information and use group dynamics to further discussion. However, the information expressed in focus groups is derived from the unique characteristics of each group and may not represent all ideas present.

**Figure 1: P2H Overall Logic Model**



## Program Components and Design

Based on information gathered through program design documents and key stakeholder interviews, JVA developed Figure 1, on the previous page, to display the program logic of P2H. The following text provides additional details about the components of the program.

### **Situation and priorities**

With the implementation of P2H, it became apparent that one of the funders, the Colorado Health Foundation, was interested in implementing a school-based, formal education program to complement the exhibit and meet its overall foundation objectives. The mission of the Colorado Health Foundation is to improve the health and health care of Coloradans by increasing access to quality health care and encouraging healthy lifestyle choices. To meet this mission, it funds programs that have the potential to show measurable results in meeting specific objectives related to healthy living, health coverage and health care. P2H uses the Coordinated School Health Program model to provide Colorado families in the Denver metro area with an educational program that aims to help improve healthy living outcomes. Specifically, P2H has the potential to provide measurable progress toward the following healthy living objectives:

1. Decreasing Colorado’s obesity rate through increased physical activity, servings of fruits and vegetables, and access to both recreational exercise and fruits and vegetables for children and adults.
2. Increase the number of parents who are educated about child development, nutrition and preventative health care.

### **Inputs**

P2H includes a suite of components directed at multiple audiences, which are designed to give participants what the Museum is calling a “multicontact” experience. As with any program, P2H will require staff, time, money, research, materials, equipment technology and partnerships. The columns below detail the intended program components, including these inputs.

Intended Audience	Intended Context	Intended Design & Delivery
30 schools serving low-income students (defined by % eligible for free and reduced lunch)	Funding from the Colorado Health Foundation includes a planning grant for concept research	Complement existing district curriculum and state standards
↓		Provide culturally and age appropriate programming and resources
5 <sup>th</sup> -grade teachers at selected schools serving low-income families	Provide linked school-based and on-site programming to all intended audiences	Utilize existing program project development processes but hire program-specific administrative staff
↓	Utilize partnerships with local school districts to recruit schools and deliver programming	
Low-income 5 <sup>th</sup> -grade students at selected schools (2,300 students)	Utilize local school relationships and existing museum systems to schedule programming	Utilize existing Museum staff for program development and delivery
↓		
Families of low-income 5 <sup>th</sup> -grade students at selected schools	Provide additional access to the Museum through memberships	Utilize existing technical resources and equipment

### **Intended activities and outputs**

Utilizing the inputs and approaches listed above, the Museum planned and is currently implementing a series of program components. The table below details each of these program components, its intended audience and key information regarding current decisions that relate to the program component.

<b>Program Component</b>	<b>Description</b>	<b>Intended Audience</b>	<b>Purpose</b>	<b>Outputs</b>
Teacher Professional Development <ul style="list-style-type: none"> <li>• Teacher Workshop</li> <li>• Online guides and other support</li> </ul>	An introduction workshop to introduce teachers to P2H and the online guides, and provide training on health science content and incorporating P2H into the classroom	Teachers	Improve teachers' ability to teach health science <ul style="list-style-type: none"> <li>• Achieve buy-in</li> <li>• Improve content knowledge</li> <li>• Provide class resources</li> </ul>	P2H online guide is completed and available online by summer 2009 The online guide is utilized by each P2H core team teacher A workshop and follow-up Webinar are held each year At least 60 teachers (two from each P2H school) participate in a workshop and/or Webinar
Pre-visit (Fitness Physiology)	45-minute class delivered at the school to each P2H class before visiting the Museum	Students Teachers*	Introduce students to body systems so they have the background knowledge needed for the on-site class	2,300 students per year participate
On-site class (Exerscience)	1.5 hours, station-based, hands-on lab class and <i>Expedition Health</i> visit	Students Teachers*	Help students explore their own body, the way it works and its capabilities	2,300 students per year participate Adult family members chaperone museum visit
Family Health Night (at school)	A night "carnival" structured event at the individual school	Students and families Teachers*	Show families that environment, genetics, and choices all shape health	Family Health Nights at all 30 P2H schools; draw 2,000 participants annually
Family Health Day (at the Museum)	Daylong field trip where families and students visit the Museum	Students and families Teachers*	Teach families that physical activity and nutrition choices determine health and success	Five family health days at the Museum will draw 2,500 participants annually
Journals	A notebook to complement P2H	Students Teachers	To provide teachers with tools for implementing health science in lessons	At least 75% of students use the P2H journal and other engagement tools
Family Membership Program	All P2H students' families get a one-year Museum membership	Students and families	Expose families to the Museum	Memberships offered to all P2H families are redeemed by 80% of families annually

\*Not the intended audience but receives indirect treatment by participating

**Intended outputs and outcomes**

By implementing the program components and achieving the desired outputs, the Museum hopes to achieve the following outcomes:

Students Will	Parents Will	Teachers Will	Schools Will
1: Increase their health science content knowledge  2: Recognize the value of physical activity and its contributions to a healthy lifestyle  3: Advocate for healthy options and behaviors within their family units	1: Show better understanding of the importance of a healthy lifestyle for the whole family  2: Report making changes that support the whole family eating better and moving more	1: Increase their health science content knowledge  2: Better understand the implications of the benefits from student involvement in physical activities  3: Increase use of the Museum’s resources with their students	1: Increase health science education in classroom instruction

These outcomes are consistent with the Foundation’s outcomes described above and will be measured through the outcome evaluation that is also part of this overall evaluation.

**Key assumptions**

The logic of P2H, described above, relies on the following key assumptions:

- There is adequate need for the program
- Participating science teachers need additional program content knowledge
- Participating students do not currently live in families that live active lifestyles
- There is adequate interest in participating in the program
- Schools and districts will sign up and participate fully in the P2H program
- Families and students will utilize memberships and participate in activities
- Teachers will be receptive to online resources
- The program design and program theory are based on a valid theory of change and are implemented according to that theory of change

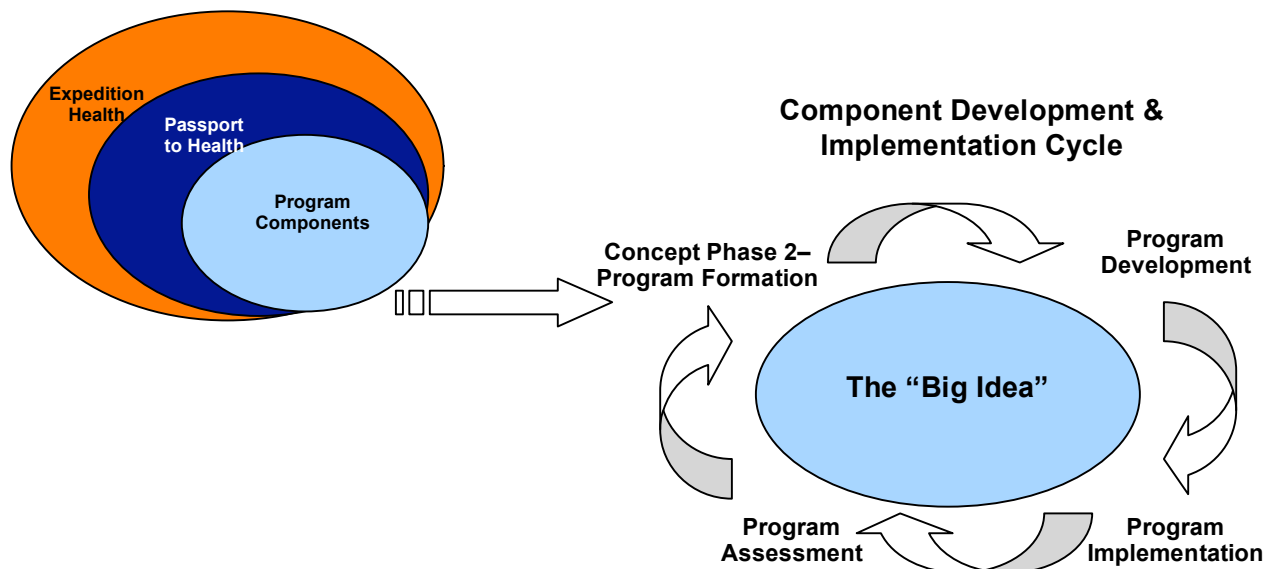
The ability of the evaluation to show measurable outcomes for the P2H program is dependent on whether these assumptions are met. The process evaluation will continue to track the validity of these assumptions.

## Program Development Process

One of the key differences between the P2H program and previous Museum programs is that P2H includes components from many different departments. Despite the fact that program implementation is being carried by numerous departments within the Museum, interviews with staff working in teacher professional development, school programs and the P2H program indicated that implementation of P2H has remained consistent. Figure 2 provides a graphical overview of how program development appears to flow at the Museum.

**Figure 2: Program Development and Implementation Cycle for P2H and its Components**

### Concept Phase 1—The “Big Idea”



### Concept Phase 1—The “Big Idea”

Both interviews with the three program development stakeholder groups and focus groups with Museum educators responsible for developing specific activities for program components identified the “concept phase” and the development of a “big idea” as the cornerstone of all program development at the Museum. For P2H, the big idea started with *Expedition Health*, the new health exhibit at the Museum, then was refined to P2H, then finally was defined specifically for each specific program component. This process ensured that everyone involved in P2H was on the same page and that each program component contributes to the overall goals of P2H, *Expedition Health* and the Museum as a whole. The big idea for P2H was to impact lifestyle choices in relation to health and the Museum developed each component of P2H to help achieve this goal.

According to a number of stakeholders, the big idea phase was somewhat unique for the P2H process because this is one of the first programs the education team has developed that is fully integrated with a broader museum initiative. P2H is also one of the first programs that the Museum has implemented that “hits” multiple populations multiple times and links programs that have been developed in more than one department. Additionally, P2H had a planning grant, also funded by the Foundation, which allowed it to dedicate extensive resources to developing

the overall P2H big idea and identify specific programmatic outcomes that linked all program components.

### ***Concept Phase 2—Program Formation***

Although most program documents linked the initial brainstorming to the development phase of the program development cycle, almost all stakeholders referred to this initial brainstorming, designed to flesh out what the program will look like, as part of the concept phase. Therefore, JVA labeled these activities as the second component of the concept phase in the program component development lifecycle displayed in Figure 2. This is the phase where the majority of research took place. This phase included gathering internal knowledge and resources such as educators, curators and individuals from the collections and others to come up with ideas about how to best address the major research question. This phase also included collecting external knowledge and resources, which in relation to P2H included (e.g., conducting interviews and focus groups with intended stakeholders, and connecting with health-related community resources).

The activities in this phase were also unique to the P2H program because of the size and scope of the initiative and its cross-cutting approach. In developing program components for P2H, staff interviewed physical therapists and other members of the health science community to help inform program formation. They also conducted interviews with intended participants to collect specific information about their needs. Additionally, P2H components were developed step-wise, allowing each component to build on program formation insight developed in previous components. Finally, because P2H had its own project coordinator who was a part of each program development process, that individual was able ensure that all program components learned from one another. These characteristics distinguished P2H program formation from other Museum programs.

### ***Program development***

During the program development phase, the content and activities of each component of the P2H program were developed. This phase included writing the curriculum, identifying which activities to use, and determining which materials and specimens were needed to implement and market the program. Like with other aspects of the component development lifecycle, this phase was characterized by collaboration. During this phase, Museum educators began to prototype activities to see if they had the desired effect on intended participants. Distributed roles also characterize this phase as project coordinators delegated specific activity development to Museum educators who will also be teaching the program.

According to Museum educators, the extensive concept development and program formation that went into developing P2H provided an excellent foundation for them to develop specific activities because outcomes were clearly defined. Additionally, the resources available for P2H allowed them to think big about the activities they could develop. Finally, since this program crossed multiple departments, many stakeholders identified the collaborative feedback they received from members of the P2H team as an additional resource, not available with other projects or programs.

### ***Program implementation and assessment***

Program implementation includes teaching full-scale pilot classes or actual classes. In preparation for this phase, Museum educators were trained in program content and delivery and the key components for program delivery were assembled. Additionally, throughout program implementation, the Museum has asked for feedback from participants and stakeholders to assess the program's effectiveness and ensure program improvements can be made in the

future. Both these components of the development lifecycle are similar to other program development processes. Stakeholders did not identify any unique qualities of P2H in these areas, but JVA will continue to monitor them in later phases of the P2H process evaluation.

### ***Program development documents***

P2H is unique from other Museum programs in that it crosses so many departments. Each program development stakeholder group identified different documents that they utilized to develop P2H programs. The teacher professional development team identified informal program development documents and templates that it employs in all programs. School programs stakeholders utilized a to-do-list recently developed by the school programs' manager to ensure that program development processes run smoothly. The to-do list has been utilized by the team before, but as it is it is relatively new, the group is still fine-tuning it by working with other institutions to understand the best approaches. Finally, the P2H program coordinator, who developed most of the ancillary programs, used informal methods to develop the smaller program components and additional project management documents to manage the overall project. Although each group utilized its own unique program development documents to develop individual components of P2H, extensive communication and overall project management accommodated these differences.

## **Key Findings**

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This section details the key findings as identified by stakeholders in relationship to the P2H program development and implementation process thus far.

### ***Challenges to P2H development and implementation***

There were very few challenges unique to P2H program development. In fact, from a high level, none of the seven key stakeholders interviewed who provided external support to P2H were able to identify things that made P2H difficult to participate in when compared with other Museum programs. Therefore, most of the findings that relate to challenges in program development and implementation relate specifically to program details or external factors and relationships. This baseline report identified and will present three challenges to program implementation.

### **School recruitment and partnerships proved difficult**

Despite extensive efforts to gather requirements from potential school stakeholders prior to developing and implementing P2H, school recruitment and partnerships proved difficult. Stakeholders identified the following insight in relationship to specific school and district partnerships:

- High-needs schools are stretched thin with both internal challenges and external programs. Therefore, it is essential to align school-based programming directed at these institutions with:
  - All state content standards, particularly literature and math
  - District curriculum in all areas, including literature, math and science
  - Standardized testing calendars
- Different districts have different approaches to recruiting schools and operating external programs. It is important to understand unique district approaches to all program components before program implementation. Additionally, since some districts are better at



communicating with schools than others, the Museum needs to ensure all school personnel receive adequate information.

- School dynamics are constantly changing because of teacher and principal turnover. These conditions caused recruiting problems when schools lost their champion and scheduling problems for summer professional development.

### **Specific activity development and timelines were challenging**

Museum educators, despite being satisfied with the overall program development processes, expressed concern that activities intended to meet specific outcome objectives proved difficult to develop. Additionally, they were concerned that despite the extensive time allotted for program development, the components and their activities were still under construction shortly before the program was set to start, which left little time to prepare for implementation.

### **Program complexity sometimes led to role confusion**

As noted throughout this document, P2H is an extremely complex program that impacts many Museum departments. The next section will show that virtually all stakeholders were satisfied that they knew their role in program implementation and the overall timeline for the project. However, many stakeholders outside the education department as well as Museum educators expressed concern that they did not know the exact roles of the program development staff or P2H administrative staff.

### **Key enablers of P2H development and implementation**

Stakeholders involved in the P2H development process showed high levels of satisfaction with the overall program development and implementation. This section will identify three key organizational, program and individual characteristics that helped enable the P2H development and implementation process.

### **Organizational characteristics enable quality and cohesive program development**

- All interviews and focus groups suggest that there is participatory environment at the Museum. This environment makes it possible for individuals to collaborate between and among groups. Examples of this environment include:
  - Diverse set of stakeholder groups identified on program documents
  - Confirmation from all three development stakeholder interviews that P2H development staff had access to and received feedback from multiple Museum departments
  - The high number of departments involved in all components of P2H
- The program development process above shows that although each department utilizes different program planning documents, they all follow a standard program development approach. This consistency helps ensure that all departments are “speaking a similar language” and have a similar understanding of important program components, processes or approaches.
- Finally, there is a strong emphasis on utilizing existing resources. From its inception, P2H was developed based on program components already done at the Museum. This is the first time that all these program components have been put together, but it is not the first time that any program component has been developed. Beginning with grant development and continuing through individual activity development, this approach has allowed the Museum to effectively manage resources.

### **Specific project characteristics allowed the team to think big**

- Extensive resources allowed the P2H team to “think big.” The majority of stakeholders from the three stakeholder groups again mentioned the extensive resources that are part of P2H. As previously mentioned, the generous grant provided by the Foundation provided a planning grant that allowed the Museum to put extensive resources toward content development. Additionally, the grant provided a long timeline, specific project staff and extensive funds for project development. This allowed the Museum to go beyond its normal project development cycle and “think big” when it came to curriculum and activity development.
- Additionally, although the project components were distributed among multiple departments, specific project outcomes allowed high levels of cohesion with P2H. Another project-specific component that was mentioned by all program development stakeholder groups and focus groups was the importance of outcomes. Because of the initial work that went into the larger Health Science initiative, the P2H grant application and the planning grant, specific outcomes were identified from the start of P2H. This made the development of program components and activities related to those components easier than it has been with other initiatives. It also ensured that all program components had consistent goals and outcomes.

### **Individual leadership and project management skills brought P2H together**

Finally, every person who was interviewed or participated in a focus group identified the P2H program coordinator and project management strategies as the primary enablers of the P2H program. Excellent internal communication strategies helped ensure that all stakeholders from all departments remained on the same page, and superb organizational skills helped ensure that the program progressed in a way that ensured implementation success.

## **Recommendations**

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The above findings provide valuable insight into key program approaches that presented challenges and better enabled program development. These findings inform the following recommendations:

- *Engage schools and districts more effectively from the start:* In the future, the Museum may want to employ different techniques to ensure district and school buy-in from the start of the program.
- *Explicitly define P2H roles:* The P2H team should provide stakeholders with documents that help more clearly define staff roles.
- *Learn from activity development:* The Museum could consider implementing approaches to help it learn from specific activity development failures so in the future it can reduce frustration among educators.
- *Continue to utilize project coordinators and project management approaches:* Although not all projects will have the resources necessary to fund administrative personnel, the Museum should learn from the project management approach employed in P2H and examine ways to utilize it in developing other programs. In particular, the internal communication structure might be helpful as a model for future programs.
- *Learn from the P2H model:* The Museum should consider using P2H as a model for developing future “holistic” programs that address multiple audiences with multiple program components.

- *Continue to seek funding for and develop programs in conjunction with large initiatives:* The Museum should encourage funders to support large initiatives or to link their funding to large initiatives, rather than only funding the development of incremental or stand-alone programs.
- *Continue to nurture the Museum's participatory environment:* One of the key enablers of the P2H program was the Museum's participatory environment, which contributed greatly to the development of P2H. This is not a common organizational characteristic; therefore, the Museum should take special steps to continue to nurture this environment.

# Baseline Climate Assessment

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JVA designed the baseline climate assessment to provide the Museum and JVA with insight into the healthy living environment available to students, families and teachers at P2H schools. This information will allow the Museum to make important decisions about program implementation and provide JVA with important background data that will be useful for analysis in later stages of the outcome evaluation. There are currently 28 schools from four different school districts

**Key Question:** What related programs and resources are currently available to P2H participants and how might they impact the study?

participating in the P2H program. Each of these districts brings a different health science curriculum and approach to meeting state standards and each school and neighborhood has different resources available for its students and families. These differences will likely affect the outcome of the P2H evaluation as well as the ability to link outcomes directly to P2H. In short, this assessment is designed to determine the programs and resources related to P2H that are currently available to P2H participants and the impact of these programs.

## Methods

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To answer the overarching question of the baseline climate assessment, JVA needed to collect information about the health science resources and community resources available to students from each school, as well as information regarding differences in district approaches to teaching health science. JVA utilized the following approaches for collecting information for the climate assessment, which are described in detail below:

- Survey of school primary contacts
- Community asset scan
- Key informant interviews and document review

### ***Survey of school primary contacts***

To collect information about health science and fitness resources available to students at each P2H partner school through both the school and the community, JVA administered an online survey for the primary contact at each participating P2H school. This approach allowed JVA to collect information from individuals within the context of the P2H program and knowledge of the type of resources that might affect program outcomes. Additionally, this approach reduced the number of personnel JVA needed to contact at each school and helped conserve resources.

The survey (found in Appendix III) collected information about current and past health science initiatives at the school, physical education offerings, and the availability of afterschool programming and recreation facilities in the surrounding communities of each school. Primary contacts were given one month to respond to the survey online and received an incentive for their participation. JVA then contacted primary contacts who did not respond to the online survey via follow-up telephone calls and asked them to respond to the survey questions verbally. Primary contacts from 23 schools responded to the survey, a response rate of 82 percent.

### ***Community asset scan***

Because part of the program theory of the P2H initiative assumes that teachers do not always know what resources are available to their students, JVA supplemented the information collected from primary contacts with a community asset scan, conducted electronically, to help

ensure that all local community recreation opportunities available to students in the P2H program were identified. Using Google Maps, JVA researched each school neighborhood for recreation centers, parks, public pools, sports fields, bike trails, YMCAs, Boys & Girls Clubs, martial arts studios and other common recreation facilities within a three-mile radius of the school. These assets were then added to the list of external resources provided by school contacts.

### ***Key informant interviews and document review***

Finally, to collect information about unique district practices and approaches to teaching health science in fifth-grade classrooms impacted by P2H, JVA reviewed district science curriculum and interviewed key informants from the Museum. First, JVA visited each district's Web site and downloaded the fifth-grade science curriculum and planning guides. Next, JVA conducted interviews with Teacher Programs Coordinator, Meg John, and Assistant Teacher Programs Coordinator, Kate Geer, who are responsible for developing the teacher professional development component of P2H that includes teacher workshops and online guides. To accomplish the goal of providing quality resources for the participating schools, they worked closely with districts to collect information about their health science curriculum and overall state standards. To avoid duplicating work and because these Museum staff worked so closely with the districts, JVA interviewed only these internal experts to get their feedback about differences in science curriculum and approaches between districts.

### ***Potential Limitations***

JVA utilized the above methods to gather information from stakeholders familiar with the districts, and schools and communities participating in P2H. While attempts were made to identify all potential assets for the maps, it is possible organizations were missed and, therefore, the maps should not be viewed as absolute. Instead, they should be used as working documents that JVA will work on with the Museum to fine-tune to ensure that the final evaluation has an accurate baseline. Secondly, although surveys were conducted with individuals who were knowledgeable about the districts, schools and communities, results represent the unique perspectives of individuals interviewed and may not represent the scope of the schools entirely. Wherever possible, JVA tried to verify current and past school participation in programs, however, it is possible that some health science, fitness initiatives or community resources associated with P2H schools were missed in the research collection phase.

## **Overall Findings**

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Through the methods described above, JVA collected extensive information regarding the resources currently available to students and their families both internally at the school, and externally, within the community. This section provides an overview of the key baseline findings while Appendix IV synthesizes this information.

### ***Resources Available to P2H Participants***

Overall, schools and communities did demonstrate an existing commitment to health sciences and fitness, as illustrated by the number of schools currently engaged in health science initiatives, the number and types of physical education programs and the recreational offerings in the communities surrounding the school. More specifically, 61% of respondents ( $n = 14$ ) said their schools currently have health science initiatives in addition to P2H, 86% of which ( $n = 12$ ) are facilitated by external agencies rather than by the schools themselves. In contrast, when asked about health science initiatives in the past, only 35% ( $n = 8$ ) of respondents said that their

schools had hosted such programs before. This demonstrates a 25% increase in schools' participation in health science programs.

Although virtually all schools report some type of physical education component, the intensity of physical education offerings varies significantly among schools. Eighty-seven percent of survey respondents ( $n = 20$ ) report having a full-time physical education teacher on staff at their school. The amount of time students spend in physical education each week, as reported by survey respondents, varied significantly: 35% ( $n = 8$ ) said students participate between 30–60 minutes per week, 26% ( $n = 6$ ) said between 60–90 minutes, one respondent said under 30 minutes and 35% ( $n = 8$ ) answered “other,” with times ranging from 40 minutes each month to 45 minutes one week and 90 the next. In addition, respondents were asked about special physical education offerings: 35% ( $n = 8$ ) said their schools did offer special physical education programs, which include activities such as jump rope club, running club, dance lessons, circus arts club and various sports. Finally, 96% of responding schools ( $n = 22$ ) offer afterschool programs, but only 43% ( $n = 10$ ) of those schools offer health or fitness-focused programs.

JVA's community asset scan and responses from survey respondents show that the number of recreational facilities available to students outside of school varies greatly. Eighty-three percent ( $n = 19$ ) of survey respondents identified recreational facilities in the community of their school; one respondent said there were no facilities within walking distance and 13% ( $n = 3$ ) did not identify any facilities in the communities surrounding their schools. When this information is combined with information collected through JVA's community asset scan, results show that there are between two and nine community recreation facilities in close proximity to each P2H school.

### ***Non-Program Influences***

While P2H partner schools mentioned various health science initiatives or programs, both past and current, four programs were mentioned multiple times. The Museum's *New Me: Puberty*, The University of Colorado at Denver's *Integrated Nutrition Education Program*, Denver Public Schools' *Science Tracks* and Aurora Public Schools' *Aurora LIGHTS* all address and pertain to health science education (see Appendix V for program details). These programs could have an influence on P2H participants that is reflected in the outcomes assessments but is unrelated to the P2H program.

Museum personnel also recognized that the Museum offers an afterschool program called After School Science Quest (ASSQ) that P2H schools are eligible to participate in. This participation could influence the outcomes of P2H in two ways. First, ASSQ could influence the health science outcomes of P2H participants. Second, an increase in ASSQ participation by P2H schools could indicate that P2H is having an impact on schools' use of Museum resources. Three P2H schools participated in ASSQ during the 2008–2009 school year and one P2H school has participated in ASSQ during the 2009–2010 school year.

### ***District Curriculum and Approaches to State Standards***

Differences in curriculum and approaches among the various school districts are likely to have an impact on the effect of P2H teachers and students. The Colorado Department of Education and school districts are continually modifying and updating their educational approaches to ensure students get the best possible education in Colorado. Recent changes to state standards, the way districts implement these standards, the curriculum districts utilize and the support systems districts provide to teachers all influence the effect of P2H on students.

According to key stakeholder interviews conducted with Museum staff, in 2009, the state of Colorado mandated that state science content standards should be changed and districts will be

accountable for implementing these changes in 2012 when the CSAP tests will measure new content outcomes. These changes are most likely to reflect a shift from grade band expectations for elementary students to grade-level specific expectations.<sup>1</sup> Previous standards included not only content-specific requirements, but also scientific skill sets such as scientific inquiry and scientific process skills, while the new standards embed these scientific skill sets within content area requirements. The new standards also require schools to teach all three content areas in every grade rather than focus on one content area per grade, as most school districts currently do. This policy change posed a challenge for the P2H staff and evaluation team because some districts may adjust faster to these standards than others.

### ***Denver Public Schools (DPS)***

DPS adopted a new curriculum called *Science Tracks* for the 2007–2008 school year. Developed by the Biological Sciences Curriculum Study (BSCS) with funding from the National Science Foundation, *Science Tracks* is a hands-on, inquiry-based curriculum that promotes and integrates literacy and science. DPS piloted *Science Tracks* during the 2005–2006 and 2007–2008 school years in 24 schools before implementing it districtwide. DPS continues to modify and update the resources available for teaching this curriculum. Additionally, according to Museum staff, the district began using new textbooks recently to enrich this curriculum.

As part of the *Science Tracks* curriculum, DPS teaches students to investigate human systems in fifth grade, so DPS students who are participating in P2H learn health science in conjunction with P2H. Additionally, *Science Tracks* focuses on integrating literacy into science (something that P2H also does), implemented partially because of feedback received from teachers who stressed the importance in the current assessment climate. Therefore, DPS students and teachers are likely to be familiar with the concept of science journaling because it is a principal component of the district’s curriculum.

The Museum educators also noted that some districts, DPS in particular, have many external programs targeting their districts, because funding is available for programs that target “at-risk youth.” While beneficial to many students, this can pose a problem for teachers and other school personnel who are already have many interests competing for their time. The availability of multiple programs, and teachers’ limited time for program implementation could impact the effectiveness of the program for schools like this because teachers are less likely to have the time needed to devote to P2H-related activities.

### ***Aurora Public Schools***

Like DPS, Aurora Public Schools (APS) also recently adopted a new science curriculum and, according to Museum staff, APS is currently planning to continue with this curriculum despite new state standards. APS is also one of 12 Colorado school districts to pilot a database entitled Discover Education One Stop, which provides teachers with extensive science resources through an online portal.

APS differs from the other participating P2H school districts because their students receive health science education in fourth grade through a unit called *You and Your Body*. This means that APS students are likely to come into P2H with a higher level of knowledge than other P2H participants, which could impact the amount of knowledge growth they experience over the year. Additionally, since teachers are not teaching health sciences in fifth grade, they may not

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<sup>1</sup> Colorado State Standards Draft with Comments. (November 2009). Colorado Department of Education. Retrieved from <http://www.cde.state.co.us/cdeassess/UAS/DRAFTS/Final%20Drafts/Drafts%20for%20Dec%20Meeting/Science%20Standards%20Draft%20with%20Comments%2012%207%202009.pdf>

have access to as many professional development materials or use available P2H resources to their fullest potential in their classrooms the way teachers from other districts might.

### ***Jefferson County Public Schools***

Jefferson County Public Schools (Jeffco) piloted a new health science curriculum for its fifth-grade classes in spring 2004.<sup>2</sup> This unit is taught during the first eight weeks of the school year, which indicates that all Jeffco students participating in P2H learn about the human body and its systems early in the school year. Additionally, the desired outcomes of this curriculum are similar to the desired outcomes of the P2H curriculum. There is no indication that Jeffco schools will change its current curriculum to match new state standards during the two years it is implementing P2H.

### ***Adams 12 Five Star Schools***

Adams 12 Five Star School's currently distributes its health science lessons across grade levels. For example, students learn about the human body and its systems in third grade, then later learn about nutrition in fifth grade. As with Aurora, this could have implications for P2H because students will have learned much of the information associated with P2H two years before experiencing P2H. As a result, students in this district may come into P2H with more knowledge about health science than students from other districts. Additionally, teachers in this district may not teach all components included in P2H and may not integrate as many of the P2H resources in their classroom.

### ***Varied Teaching Approaches***

Finally, the key informant interviews revealed that the Museum staff expects the impact of P2H—particularly the adoption of additional teaching resources—to vary significantly based on the level of teacher involvement. Factors such as the amount of teacher training, age, classroom makeup and personal teaching approaches will impact how the program is implemented by each teacher in each classroom. Although the Museum staff tried to take into account teachers' input collected in the initial focus groups, not everyone's needs will be addressed, and the Museum cannot control how the program is implemented in each classroom.

## **Potential Implications for Evaluation**

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The above findings could have a number of implications on the P2H evaluation. This section describes some of those implications as well as the steps JVA might take to address these challenges.

- It is important to note that each school has different internal and external resources for recreation and health sciences. JVA will utilize the information collected in this baseline assessment to take these differences into account when analyzing outcome data. Potential approaches may include comparing the results of schools with additional resources to those that have limited or no resources and using statistical techniques to take into account the amount of additional treatment outside of P2H that students are receiving.
- Differences in district curriculum, particularly in the timing that health science content is delivered, are likely to have an impact on the results of student pre and posttests and

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<sup>2</sup> Performance Expectations for Science Grades K–12 Draft. (July 2003). Jefferson County Public Schools. Retrieved from <http://jeffcoweb.jeffco.k12.co.us/isu/science/perfexp02.doc>



teacher outcomes. JVA will control for the timing of health science content delivery when analyzing teacher and student data.

- It is difficult to account for teaching style differences, especially when teachers are a population the Museum hopes to influence with this program. However, JVA will make sure to note potential differences among teachers and to try to account for these differences when analyzing and comparing student outcome data.

## Ongoing Evaluation

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The components of the baseline evaluation described above will help inform the ongoing process and outcome evaluation. Below is a synopsis of each of the evaluation activities and its current status.

### Process Evaluation and Program Mapping

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This document details the baseline process evaluation, which lays out the overall P2H program structure and examines the P2H program development. JVA will continue to conduct a process evaluation throughout the three-year life of P2H. This evaluation will include continuing to document the overall P2H program and map its implementation longitudinally. JVA will also continue to conduct interviews with key stakeholders throughout the program to collect information about program changes and lessons learned. The process evaluation will provide the Museum with valuable information it can use to make informed decisions, and it will provide JVA with important context to use in the outcome evaluation.

### Pre- and Post-surveys

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JVA is currently conducting pre- and post-surveys with teachers and students who participate in P2H. JVA collected pre-surveys from approximately 60 teachers in the summer prior to the start of the program and will conduct post-surveys in summer 2010 following the completion of the program. As indicated in the process evaluation, the evaluation results will be impacted by teacher turnover, however, JVA should be able to collect a sufficient data sample to analyze and measure the impact of the program.

JVA is also conducting pre- and post-surveys with P2H students. JVA hoped to conduct pre-surveys in all 28 P2H partner schools. Unfortunately, DPS and Jeffco did not approve the evaluation plan in time to reach all of the schools in those districts. Therefore, JVA could not administer surveys to seven schools in these districts that completed P2H early in the school year. To date, pre-surveys have been administered in 10 schools and “Fitness Physiology” has been scheduled for six additional schools in the spring, all of which should receive the pre-survey. The three remaining P2H schools have not yet scheduled their “Fitness Physiology” programs.

### Focus Groups

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To gauge program effectiveness, JVA will conduct two sets of focus groups in the spring and early summer of 2010 with students and teachers who participated in the P2H program. JVA will also conduct short interviews with parents whose children participated in the P2H program to learn about the effect of the program on families. In order to ensure that all focus group respondents have received the same level of participation in the program, the families participating in the Focus Families component of the evaluation will not be included in the focus group component.

## **Focus Families**

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The Museum believes that as students learn about the importance of health and fitness and are positively impacted, the families of these students will also be impacted. JVA will measure and evaluate the effect of the P2H program on families through the Focus Families component. JVA will work with family liaisons positioned at P2H schools to identify up to 12 families to participate in monitoring through the Focus Families process. These families will participate in an initial assessment of their family health and fitness habits, monthly phone interviews with a JVA associate to track and monitor progress, and a final assessment to determine the effects of P2H on their family members. To date, six families from six different P2H schools have agreed to participate in the Focus Families component. Families from four other schools have indicated interest in participating but have not submitted the required participation agreement forms.

# Appendices

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## **Appendix I: Process Evaluation Interview–Program Development Staff**

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1. Tell me about your role at the Museum
2. Tell me about your role with Passport to Health
3. Tell me about your role with each of the following components (alter depending on role):
  - a. Teacher professional development
  - b. Pre visit
  - c. On-site class
  - d. P2H journals
  - e. Family Health Nights at school
  - f. Family Health Nights at DMNS
  - g. Family Membership program
  - h. School recruitment and retention
4. What were your biggest challenges?
5. What was easiest?
6. What systems have you used to complete that role?
7. What has worked well?
8. How did you overcome the challenges?
9. Have you worked with other program development at DMNS? What are they?
10. What were the major differences between this development process and those?

11. What if anything is working better with P2H?
12. What things do you think could be applied to other program development projects?
13. What is the one thing you wish you would have done differently?
14. What is the one thing you learned that you will definitely apply in the future?

## **Appendix II: Process Evaluation Interviews—External Staff Supporting P2H**

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### **Passport to Health—Process Evaluation**

#### **Museum Stakeholder Interview:**

[TEXT IN ALL CAPS IS NOT READ ALOUD]

#### **WELCOME/OVERVIEW**

Hello. Thank you all for participating in this interview. My name is Katie Zaback and I am with JVA Consulting. This interview is part of a Process Evaluation that the Museum is conducting as part of Passport to Health. The purpose of the evaluation is to better understand the process that goes into developing and implementing the Passport to Health program so that we can document the process and identify things that work and things that could be improved in the future. We will continue to hold interviews like this one at various times throughout the program to document changes that occur.

The information you share today is confidential. JVA will combine all responses from our discussion into the report—no personally identifying information will be shared outside of this conversation, but I will warn you that because your role is unique, the information you share may be traceable. Our discussion today will be informal. There are no right or wrong answers. I simply want to know what you think and why.

If you have questions or need clarification at any time, I encourage each of you to ask any questions you may have and please correct me if you think I misinterpret your point. Depending on your level of involvement, our discussion today should take about 30–45 minutes.

#### **BACKGROUND INFORMATION**

1. To begin, please share your role at and experience with the Museum.
2. Tell us about your involvement with Passport to Health?

#### **EXPERIENCE WITH PASSPORT TO HEALTH**

3. Is your experience with Passport to Health similar or different from your experience with other programs you are part of at the Museum?
  - a. What are the differences?
  - b. What are the similarities?
  - c. What if anything is working better with P2H?
  - d. Worse?

4. Have there been any major challenges working with Passport to Health?
  - a. What are they?
  
  - b. How could they have been avoided?

6. Were there things that made Passport to Health easy to be involved in?

### **WHAT WE CAN LEARN**

7. Were there any systems or processes that were used to develop/implement Passport to Health?
  - a. Are they different from what would normally be used?
  
  - b. How did they work?
  
  - c. If different, do you think they should be used again?
  
  - d. What might prevent them from getting used again?
  
8. Are there systems or process that were not applied in Passport to Health that you wish would have been?
  
9. If there is one thing you think could have been improved with the Passport to Health Program, what is it?
  
10. If there is one thing you think the Museum should learn from the Passport to Health Program, what is it?

### **CLOSING**

Those are all of my questions.

11. Are there any final comments you would like to make?

Thank you for participating in this interview today. Your time is very much appreciated and your comments have been very helpful.



## **Appendix III: Process Evaluation Interviews—Museum Educators**

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### **Passport to Health—Process Evaluation**

#### **Museum Educator Focus Groups**

[TEXT IN ALL CAPS IS NOT READ ALOUD]

#### **WELCOME/OVERVIEW**

Hello. Thank you all for participating in this focus group discussion. My name is Katie Zaback and I am with JVA Consulting. I will be helping to facilitate this discussion. This focus group is part of a Process Evaluation that the Museum is conducting as part of Passport to Health. The purpose of the evaluation is to better understand the process that goes into developing and implementing the Passport to Health Program so that we can document the process and identify things that work and things that could be improved in the future. We will continue to hold focus groups like this one at various times throughout the program to document changes that occur.

The information you share today is confidential. JVA will combine all responses from our discussion into the report—no personally identifying information will be shared outside of this room and I would ask that each of you not share this information outside of this room as well. Our discussion today will be informal. There are no right or wrong answers. I simply want to know what you think and why.

I will help guide our conversation, but I encourage each of you to ask questions if any of my questions are not clear and to correct me if you think I misinterpret your point. It is important that wide ranges of ideas are expressed. If you would like to add to an idea, or if you have an idea that is different from others, please speak up. I do ask that you try to respect another person's opinion or experience, even if you don't agree with it.

My colleague, Guadalupe, is taking notes from the discussion today. We are also audio-recording the session so that we accurately capture your thoughts. We will use the tape recording to help present the information in the report. Our discussion today should take about 45 minutes.

#### **BACKGROUND INFORMATION**

5. To begin, please tell us your name and briefly share your role at and experience with the Museum.
6. Tell us about your involvement with Passport to Health?

PROMPT, IF NEEDED: Were you at all involved in the (TPD, Pre-Visit, On-site class, P2H journals, family health nights, Family Health Days, Family Membership program, Recruiting schools?

## **EXPERIENCE WITH PASSPORT TO HEALTH**

7. As Museum educators, what is your involvement with Passport to Health?
  - a. Was your role different from the role you normally play?
  
  - b. What was different?
  
8. Is your experience with Passport to Health similar or different from your experience with other programs you are part of at the Museum?
  - a. What are the differences?
  
  - b. What were the similarities?
  
  - c. What, if anything, is working better with P2H?
  
  - d. Worse?
  
9. Have there been any major challenges working with Passport to Health?
  - a. What are they?
  
  - b. How could they have been avoided?
  
6. Were there things that made Passport to Health easy to be involved in?

## **WHAT WE CAN LEARN**

7. Were there any systems or processes that were used to develop/implement Passport to Health?
  - a. Are they different from what would normally be used?
  
  - b. How did they work?
  
  - c. If different, do you think they should be used again?
  
  - d. What might prevent them from getting used again?
  
8. If there is one thing you think could have been improved with the Passport to Health Program, what is it?

9. If there is one thing you think the Museum should learn from the Passport to Health Program, what is it?

## **CLOSING**

Those are all of my questions.

10. Are there any final comments you would like to make?

Thank you for participating in this focus group today. Your time is very much appreciated and your comments have been very helpful.

**Appendix IV: School Resource Survey for Primary Contacts**

## Introduction

As many of you know, JVA Consulting, LLC (JVA) was hired by the Denver Museum of Nature and Science to conduct an evaluation of its Passport to Health (P2H) program. The P2H program seeks to inform students in elementary schools throughout the Denver metro area about health science, the importance of fitness and nutrition. As part of the program evaluation, JVA has created a short survey, which should take no more than five minutes, to help us better understand the availability of health science and fitness programs in P2H partner schools.

Thank you in advanced for your participation and we look forward to hearing from you.

## Contact

### 1. What is your name?

### 2. What is the name of your school?

## Current School Programming

### 1. In addition to Passport to Health, does your school currently offer any health science initiatives?

- No  
 Yes

### 2. If YES, is the program:

- Created and facilitated by the school?  
 Created and facilitated by an external agent? (Passport to Health is an example) (Please specify)

### 3. If YES, what is the focus of the program and what population does it target/impact?

## Past School Programming

### 1. In addition to Passport to Health, has your school supported health science initiatives in the past?

- No  
 Yes

**2. If YES, was the program:**

- Created and facilitated by the school?
- Created and facilitated by an external agent? (Passport to Health is an example) (Please specify)

**3. If YES, what was the focus of the program and what population did it target/impact?**

**Physical Education (PE) offerings**

**1. Does your school have a full-time PE teacher?**

- No
- Yes

**2. How many minutes of PE do the students participate in each week?**

- Under 30 minutes
- 30-60 minutes
- 60-90 minutes
- Other (please specify)

**3. Does your school offer any special PE programming?**

- No
- Yes (please specify)

**4. Do students at your school have access to afterschool programming?**

- No
- Yes

**5. If YES, are there health and/or fitness programs?**

- No
- Yes (please specify)

## Recreation Offerings in the Community

**1. Please describe any recreation offerings in the community surrounding your school (for example: community recreation center, sports field, playground, pool, public gymnasium, etc.)**

## Thank you

You have completed the survey!  
Thank you!

## Appendix V: Health Science and Fitness Resource By School

School	Current HS initiatives	Past HS Initiatives	Full-time PE teacher	Minutes of PE/week	Special PE offerings	Health/fitness after school programs	Resources	Total Res.
<b>Adams 12 Five Star Schools</b>								
<b>McElwain Elementary</b>	N/A	N/A	X	Varies: at least 50/week	Afterschool clubs	Basketball and hip-hop dance	Thornton Recreation Center, Rotella Park, YMCA	3
<b>Rocky Mountain Elementary</b>		ASSQ					City Park Recreation Center, Hyland Hills Park and Recreation, Carroll Butts Athletic Park, Squires Park, ATA Karate for Kids	5
<b>Aurora Public Schools</b>								
<b>Clyde Miller Elementary</b>							Beck Recreation Center, Aurora City Government: Fitzsimons pool, Triangle Park, Aurora Sports Park, Jung's Elite Martial Arts Family Center	6
<b>Fletcher Elementary</b>	Human reproduction program for 5 <sup>th</sup> graders*	N/A	X	30–60	N/A		Moorehead Recreation Center, Moorehead Memorial Park, Boys & Girls Club, Bluff Lake Nature Center	4
<b>Laredo Elementary</b>	Aurora LIGHTS	N/A	X	60–90	N/A	Seasonal walk/running & jump rope club	Beck Recreation Center, Fitzsimons Pool	2



<b>School</b>	<b>Current HS initiatives</b>	<b>Past HS Initiatives</b>	<b>Full-time PE teacher</b>	<b>Minutes of PE/week</b>	<b>Special PE offerings</b>	<b>Health/fitness after school programs</b>	<b>Resources</b>	<b>Total Res.</b>
<b>Montview Elementary</b>	UCD Integrated Nutrition Education Program and Aurora LIGHTS	Same	X	30–60	N/A	Skateboarding and football	Moorehead Recreation Center, Aurora Recreation Center, Moorehead Memorial Park, Boys & Girls Club, Kingdom Martial Arts Academy	5
<b>Paris Elementary</b>	Nutrition program and Aurora LIGHTS	N/A	X	30–60	N/A	N/A	Bluff Lake Nature Center, Moore Head Recreation Center, Aurora Recreation Center, Del Mar Pool, Fitzsimons Pool	5
<b>Parklane Elementary</b>	Aurora LIGHTS	N/A		30–60	N/A	N/A	Bluff Lake Nature Center, Moorehead Recreation Center, Boys & Girls Club	3
<b>Peoria Elementary</b>	UCD Integrated Nutrition Education Program	Same	X	30–60	N/A	N/A	Aurora Recreation Center, Del Mar Swimming Pool, Boys & Girls Club, Del Mar Park, Nome Park, Aurora Lib Recreation & Cultural Service	6
<b>Sable Elementary</b>	N/A	N/A	X	Varies: some weeks 45, others 90	N/A	N/A	Beck Recreation Center, Fitzsimons Pool, Fairplay Park, Boys & Girls Club	4

School	Current HS initiatives	Past HS Initiatives	Full-time PE teacher	Minutes of PE/week	Special PE offerings	Health/fitness after school programs	Resources	Total Res.
<b>Denver Public Schools</b>								
<b>Park Hill K-8</b>	“New Me: Puberty,” with Denver Museum of Nature & Science	Same	X	60-90	N/A	N/A	Outdoor Recreation Center, Glenarm Recreation Center, Stapleton Swimming Pool, YMCA	4
<b>Bryant Webster K-8</b>	UCD Integrated Nutrition Education Program	N/A	X	Varies: PE is a course offered to students each quarter	Sports	Nutrition and cooking class and PE	Columbus Park, Hirshorn Park, YMCA Youth Programs, Boys & Girls Club, Denver Krav Maga	5
<b>Castro Elementary</b>	Nutrition program*	Same	X	60-90	N/A	N/A	Athmar Recreation Center, YMCA, Boys & Girls Club, Garfield Lake Park	4
<b>Charles M. Schenck Community School</b>	UCD Integrated Nutrition Education Program for all grades	Same	X	60-90	Jump rope club and running club	Depends on PE teacher interests, ASSQ	Athmar Recreation Center, Harvey Park Recreation, YMCA, Sanderson Gulch Park, Harvey Park, 2x Boys & Girls Club	7
<b>Cole Arts and Science Academy</b>	PE teacher runs a program that helps students track their health*	N/A	X	60-90	Beacons after school program and Middle School Sports League	Same	Curtis Park and Pool, St. Charles Recreation Center, Glenarm Recreation Center, Morrison Park, YMCA, Boys & Girls Club, Denver Krav Maga	7

School	Current HS initiatives	Past HS Initiatives	Full-time PE teacher	Minutes of PE/week	Special PE offerings	Health/fitness after school programs	Resources	Total Res.
<b>Eagleton Elementary</b>							Barnum Recreation Center, Rude Recreation Center, La Alma Pool, YMCA, 2x Boys & Girls Club, United Studios of Self Defense, Sloans Lake Park	9
<b>Garden Place Elementary</b>							Globeville Recreation Center, Stapleton Recreation Center, Aztlan Recreation Center, Globeville Landing Park, Denver Skate Park, 2x Boys & Girls Club, Denver Krav Maga	8
<b>Gilpin Elementary</b>	N/A, but the district offers a Family Life program	N/A	X	3½ hours every three weeks (45 minutes all five weekdays every three weeks)	N/A	N/A	Glenarm Recreation Center, Curtis Park Recreation Center, Twentieth Street Recreation, La Alma Pool, YMCA, 2x Boys & Girls Club, Fuller Park, Curtis Park	9
<b>Goldrick Elementary</b>	Science Tracks curriculum, which targets 5 <sup>th</sup> graders	N/A	X	60–90	Volleyball		Athmar Recreation Center, Washington Park Recreation Center, YMCA, Huston Lake Park, Ruby Hill Park, 2x Boys & Girls Club, Garfield Lake Park, Cherry Creek Bike Path	9

School	Current HS initiatives	Past HS Initiatives	Full-time PE teacher	Minutes of PE/week	Special PE offerings	Health/fitness after school programs	Resources	Total Res.
<b>Greenwood K-8</b>	N/A	N/A	X	60-90	N/A	Middle School sports, K-3 soccer, and dance	Montbello Recreation Center, Parklane Swimming Pool, Fitzsimons Pool, Montebello Central Park, Boys & Girls Club	5
<b>Harrington Elementary</b>	Science Tracks curriculum, which targets 5 <sup>th</sup> graders	UCD Integrated Nutrition Education Program, ASSQ		N/A	Movement class with music teacher	N/A	St. Charles Recreation, Russell Square Park, YMCA, Boys & Girls Club	4
<b>Marrama Elementary</b>	N/A	N/A		40 minutes every four weeks	N/A	N/A	Green Valley Ranch Recreation Center, Ensenada Park	2
<b>Northeast Academy Charter</b>							Moorehead Recreation Center, Fitzsimons Pool, Mel Silverman Park, Boys & Girls Club	4
<b>Smith Elementary</b>	N/A	N/A	X	Under 30	N/A	Sports teams and dance classes	MLK Recreation Center, Stapleton Swimming Pool, Skyland Park, Boys & Girls Club of Denver, YMCA	5

School	Current HS initiatives	Past HS Initiatives	Full-time PE teacher	Minutes of PE/week	Special PE offerings	Health/fitness after school programs	Resources	Total Res.
<b>Jeffco Public Schools</b>								
<b>Foster Elementary School</b>	N/A	N/A	X	30–60	Jump rope club and circus arts after school program	Rock your Body, outdoor club, hiking club	Berkeley Recreation Center, Wheat Ridge Recreation Center, Memorial Park, North Jeffco Park & Recreation District, Boys & Girls Club, Lakes Gymnastics	6
<b>Eiber Elementary School</b>	N/A	Jump Rope for Heart ( a heart health program)	X	30–60	N/A	Hip-hop, cheerleading, basketball and karate	Charles E. Whitlock Recreation Center, Sixth Avenue West Outdoor Pool, YMCA	3
<b>Stukey Elementary School</b>	N/A	N/A	X	100–130 minutes every other week	N/A	Running club in the spring, karate classes (offered for a small fee), short-term dance class	Northglen Recreation Center, Thornton City Pool, Larsen Park, YMCA, TA Thornton Karate for Kids	5
<b>Westgate Elementary School</b>	Assemblies about exercise and nutrition, Walk-A-Thon sponsored by PTA*	Jump Rope for Heart, Radio Disney, “New Me: Puberty” Denver Museum of Nature & Science program	X	Varies	Dance lessons	N/A	YMCA, Carmody Recreation Center, Green Mountain Indoor Pool	3

\*Programs offered internally by the district

Schools highlighted in gray did not respond to the baseline survey, JVA will work on collecting this data before analyzing output data

## **Appendix VI: Detailed Description of Additional Interventions**

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### **New Me: Puberty**

*New Me: Puberty*, a program facilitated by the Denver Museum of Nature & Science, which complies with national health education standards and national science standards to provide programming focused on the physical and emotional changes associated with growth and puberty.<sup>3</sup> Park Hill K–8 School is the only P2H partner school currently participating in *New Me: Puberty*, however, Westgate Elementary participated in the past.

*New Me: Puberty* provides additional health science programming that should not affect the outcome of P2H, but rather, should complement the program.

### **Science Tracks**

Science Tracks is the new, districtwide elementary science curriculum for DPS. Developed by the Biological Sciences Curriculum Study (BSCS) with funding from the National Science Foundation, Science Tracks is a hands-on, inquiry-based curriculum designed to promote and integrate literacy and science. Science Tracks was tested in 24 DPS schools during the 2005–2006 and the 2006–2007 school years and was implemented in all elementary schools during the 2007–2008 school year. According to baseline interviews, teacher contacts from two of the 13 DPS schools participating in P2H mentioned the Science Tracks program; they are Goldrick and Harrington Elementary schools. However, all DPS schools were responsible for implementing the curriculum in 2009.

The hands-on and inquiry-based curricular model used by the Science Tracks program complements the model used by P2H. Rather than biasing P2H program results, it seems likely that involvement in the Science Tracks program will support and reinforce the integrative and experiential nature of P2H.

### **Integrated Nutrition Education Program**

The Integrated Nutrition Education Program (INEP) is a school-based nutrition education program designed by the University of Colorado Denver as part of the Colorado Nutrition Education Plan through Colorado State University. INEP seeks to increase intake of fruits and vegetables, increase self-efficacy regarding food preparation, and increase knowledge of MyPyramid and overall healthy diets.<sup>4</sup> INEP is available to public schools that have free/reduced lunch participation rates of at least 50 percent in numerous counties in Colorado, including Denver, Adams, Arapahoe and Jefferson; thus, all P2H schools that meet the free/reduced lunch guideline could qualify for the program. Four P2H partner schools reported current participation in the INEP and one additional school participated in the past. The schools currently participating include: Charles M. Schenck Community School, Montview Elementary School, Bryant-Webster K–8 School and Peoria Elementary School. Harrington Elementary has participated in INEP in the past.

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<sup>3</sup> Denver Museum of Nature & Science. <http://ww2.dmns.org/teachers/at-your-school/new-me-puberty>.

<sup>4</sup> Colorado Department of Education. <http://www.cde.state.co.us/cdenutritran/download/pdf/WPIntegratedNutritionEducationProgram.pdf>.

UCD's INEP hopes to provide students at participating schools with a comprehensive nutrition program that will complement, but may also affect, P2H evaluation results. Because they will be receiving information about nutrition, healthy living and overall well-being from two sources, it may be difficult to evaluate what information was learned from P2H and what was learned through INEP. Further, if information varies between the two programs, evaluation results may be further affected.

### **Aurora LIGHTS**

This program was started in 2008 as a partnership between APS, and the University of Colorado Denver. Working with four APS elementary schools, *Aurora LIGHTS* is a P–20 educational pathway that seeks to provide the foundation for learning to guide elementary school students into health care professions. The program focuses on seven key elements, including a curriculum emphasizing health sciences, field experience and health care career exposure, which provide students with a roadmap to various health science careers. The program begins with the student in fifth grade and continues through college.

All four of the APS elementary schools participating in *Aurora LIGHTS* are also participating in P2H. The participating schools include Montview, Laredo, Parklane and Paris Elementary schools. Because the focus of the *Aurora LIGHTS* program is on career guidance and recruitment of potential health care professionals, it is doubtful that the program will affect or bias the P2H program outcomes. *Aurora LIGHTS* could, however, create greater excitement among students for health sciences, thus creating a more positive response to the P2H program.

### **After-school Science Quest**

After-school Science Quest covers the Museum's six core competencies, including Health Science, in a 12-week afterschool program setting. It is designed to provide participating students at elementary schools and their families with an understanding of the processes of science, an expanded perception of what science is and an expanded scientific awareness. The program is funded by grants and scholarships and is offered at schools close to the Museum.