

February 22, 2001

ANNUAL & FINAL GRANT REPORT

**“DEVELOPMENT OF THE INTELLECTUAL FOUNDATION
OF THE NATIONAL HEALTH MUSEUM”**

Grant Identification # 036953

October 15, 1999— October 14, 2000 (extension request to January 31, 2001)

Final Grant Report

1. What were the project's objectives and to what extent has the project met these objectives?

Overview of the Museum

The National Health Museum is dedicated to health. It is a place to marvel at and learn about health. It is a place where the intricate wonders of the human body can be experienced first hand. It is where you will be awed by recent health and medical discoveries. It is where you can learn about your own health, from the molecules and structures within your cells to the global connections we all share with each other. It is where you can make sense of new science and medical research and figure out what is important and relevant to your own life. And, it is where you and your family can have fun.

At the Museum, visitors young and old can figure out what health means for them, their families and their communities. It includes opportunities to understand medical and scientific discoveries and how they can affect everyday life. Through state-of-the-art technologies visitors will 'experience' the wondrous mechanisms in the human body that protect and maintain health, from early development through the onslaught of physical and biological challenges to the process of aging. Visitors can safely 'try-out' choices at interactive/virtual 'What if I...' exhibits to learn first hand the consequences of those choices on their own lives.

Most importantly the Museum is a catalyst for personal change: change in individual knowledge and awareness about health and how to protect it; change in understanding the meaning of the exponential increase in knowledge from scientific discovery; change in personal choices which significantly affect the quality of our lives; change in career paths for today's youth; change in our societal attitudes and perceptions about health, science and medicine; and finally, change in how each of us understands health..., from the interior world of the cell, to the connections with people around the world.

Summary: Objectives and Progress Completed

In its initial request to the Foundation, the National Health Museum identified four specific objectives to assist in the development of the intellectual core of the Museum. Through this project, the National Health Museum has successfully met those four key objectives. Specifically, the Museum has:

1. Developed and implemented a process to identify the intellectual core of the Museum's exhibits and education programs and developed a set of premises to focus and direct its programming;
2. Assessed and identified the advisory needs for ensuring the accuracy, credibility and relevancy of the Museum's exhibits and programs and implemented an expert review process that has been used during the preliminary development of Museum planning;

3. Completed a preliminary exhibit content plan for the Museum's Washington, DC - based Discovery Center and further tested the exhibit development process for two selected exhibit areas; and,
4. Assessed and identified the needs of the Museum for collections policies regarding accession, management and de-accession.

The National Health Museum includes four components. First is the engaging and informative Discovery Center in Washington, DC, that will offer a fun, interactive learning environment to the 20 million annual visitors to the nation's capital, featuring unique exhibits that explain health concepts and how to apply them to everyday life. An exciting World Wide Web presence will bring timely, engaging and effective educational resources to teachers and students while also offering interactive tours of the virtual museum. Website visitors will also find reliable health, fitness and nutritional information. A third component is a state-of-the-art Health Conference Center that will provide a forum where health associations, government officials and leading scientists can discuss health issues, debate the latest research findings and announce scientific break-throughs. The fourth component includes creative K-12 Classroom Facilities and Resources for students in the Washington, D.C. metropolitan area, as well as visiting student groups from around the nation, where they will have access to educational resources, health information and special programs.

Key Finding: Development of the Premises for The National Health Museum Through the support of The Robert Wood Johnson Foundation, the National Health Museum has been able to make significant progress in focusing the content and programming of the Museum. This first phase effort, October 1999 - October 2000, has allowed the Museum to explore significant opportunities and issues while assessing states-of-the-art of a number of relevant disciplines. It has also allowed identification of the challenges associated with accomplishing the Museum's mission and goals.

This process, referred to as *The Development of the Intellectual Core*, has allowed the Museum to explore in depth three particular avenues of inquiry. First, the recent explosion of ideas within the field of museum studies. This exploration has sharpened understanding of the issues and challenges in establishing an institution such as the new Museum. It has investigated thought-provoking ideas on the future of museums in general and the role of Science and Technology Centers.

Another area of inquiry has been the potential for museums to be sites of informal learning for their visitors and the limitations as well as the opportunities posed by museum settings. There is direct relevance for the National Health Museum in the emerging body of literature on the impact of museums on visitors and how those visitors actually use and relate to museum programming.

A third avenue of exploration has been science education in the United States. During the past fifteen years, significant efforts have been expended to improve the teaching and learning of science in Kindergarten through college settings. In particular, the experiences and insights that have been and are continuing to be derived from the implementation of the national Standards for Science Education bear direct relevance to the topics of interest to the National Health Museum. This prodigious endeavor is a significant source of inspiration as well as caution, given the resources that have been required to launch and sustain it. There are many models and prototypes that are being used to build collaborations and cooperative ventures between educational and other community institutions at the local, regional, national and even global arenas that can be utilized by the Museum as it further designs and establishes its own unique role.

Background research was also conducted on the relatively small group of existing health and medically focused museums in the United States as well as a selection from around the world. This research was supplemented by an initial assessment of recent special 'health topic' exhibits that travel around the country in various museums and informal education settings.

Of all the topics explored, perhaps none is more diffuse than the complex and multi-disciplinary field of 'health'. In many respects, even considering this exploration is daunting. It spans an extraordinary constellation of disciplines, sciences and professions. One section of the constellation includes the perspectives from traditional social sciences: Sociology, Psychology, Social Psychology, Anthropology, and even Economics and Political Science, while another section includes health, medical scientists and practitioners. Each of these fields or disciplines had developed significant bodies of knowledge pertaining to the concept or topic of health. And each one approached the topic of health in its own idiosyncratic way. Each field or discipline even has its own language and lexicon of health. (An example of the variety and nuance of terminology with common words carrying different meanings from different viewpoints surfaced during the discussions around the phrase *'outcome-based'*.)

Overall, during the course of this exploration, we were reminded of the importance of keeping the Museum's visitors in mind, and in recognizing the multiple ways people experience and learn about health.

By February 2000, a draft of ten initial premises was developed (2/00). These premises moved beyond the already established mission and goals for the Museum and articulated perspectives and possible priorities. This first version served as the basis for internal discussion and was designed to engage discussion in areas that might have potential controversy or alternative perspectives associated with them. Following presentation and discussion with members of the Museum's Board of Trustees (3/00), these premises were revised and received further internal and external review and comment.

A revised *Concept Paper on the Intellectual Core of the National Health Museum*, dated June 2000, was prepared to form the basis for a special external review. During the evening of June 13th through early afternoon the following day, a distinguished panel of experts reviewed the issues and opportunities before the Museum. The depth and scope of that discussion is reflected in the significant reorganization and reshaping of the final Premises presented below.

Members of that Concepts Review Panel identified additional research needs. Their recommendations included conducting intercept surveys with potential museum-goers. Through the Institute for Learning Innovation, a leader in museum visitor research and learning, the Museum conducted a series of intercept-surveys with museum-goers at the National Mall. Through these surveys the Museum sought to validate the focus and direction of Museum planning and to assess the public's response to specific topics and themes as well as potential exhibit experiences. Data collection commenced in August 2000 and was completed by the end of September 2000.

With results from this research available in mid-October 2000, further revisions to the *Premises for the Intellectual Core for the National Health Museum* were completed, reviewed, and presented to the Board of Trustees of the National Health Museum at their November meeting. Additional comments were then integrated into the final version of *The Premises*. These premises are now being used to focus and guide the development of Museum programming.

Premise 1. The National Health Museum engages visitors in the wonders of health and the excitement of medical discovery:

- Celebrating the marvels of the human body and the complex dynamics that affect the public's health.
- Presenting health as a multi-dimensional phenomenon from a multidisciplinary perspective.
- Paying tribute to the history and heroes of personal health, public health and medical discovery, inspiring the heroes and discoveries of the future.
- Incorporating views of health along many dimensions, from the cellular to the global.

Premise 2. The National Health Museum is a catalyst for change:

- Complementing and supporting identified priorities of serious health concerns for the nation as identified by *Healthy People 2010*.
- Engaging visitors through personalized experiences designed to inform and inspire new health decisions that contribute to increased quality and years of healthy life.
- Presenting visitors with new perspectives, ideas and opportunities to improve their personal health, the health of their families and the health of their communities.

- Establishing a forum for visitors to become engaged in discussions of the issues surrounding the frontiers of personal health, public health, science and medicine.

Premise 3. The National Health Museum is an inventive 21st Century institution embodying new technologies and educational strategies in the service of health understanding:

- Creating entertaining and educational exhibit experiences utilizing new technologies that are exciting and appealing to visitors.
- Developing outcome-based programming utilizing state-of-the-art knowledge and principles of effective health education and communication.
- Integrating ongoing assessment of impact and effectiveness within all educational programming.
- Establishing innovative partnerships and collaborations with other private and public enterprises, organizations and institutions.
- Supporting national health goals and objectives, particularly those seeking to eliminate health disparities.

Premise 4. The National Health Museum is science/evidence based:

- Presenting accurate, evidence-based information.
- Developing educational programming that supports inquiry-based science education standards.
- Exemplifying the responsible communication of health, medical and scientific information to the public.

Premise 5. The National Health Museum responds to the needs and interests of the visitor:

- Placing the needs and concerns of the visitor at the heart of its programming.
- Creating programming that appeals to and is effective for a range of visitor learning styles and interests.
- Responding to the unique dynamics of Washington, DC and the World Wide Web locations with creative techniques and communication modes that appeal to and attract visitors.

Premise 6. The National Health Museum is focused and selective rather than comprehensive, with core themes related to intended outcomes:

- Presenting exhibit experiences that address important topical health concerns for visitors.
- Selecting topics that contribute to increasing the quality and years of life of visitors, their families and their communities.
- Focusing on health issues of significance for the nation.
 - Utilizing selected collections, historical and contemporary artifacts, and

evocative objects that enhance the appeal and effectiveness of exhibit experiences.

Premise 7. While serving as a resource for school children throughout the nation, the National Health Museum recognizes its unique opportunity to contribute to the quality and years of life for the children of Washington, DC:

- Creating an ongoing partnership with Washington, DC public schools to provide teacher training, curriculum enhancement, on-site classrooms, student mentoring and project support.
- Dedicating space within the Discovery Center and on its web-site for Washington, DC teachers, students and their families.
- Brokering new public/private partnerships that contribute to improving the quality and years of life for all Washington, DC children.

Extensive additional work was completed to support these findings and is included in the Appendices.

2. What internal shortfalls, limitations, or challenges did the project encounter that were related to its funding level, design, collaborations, staffing, operations, or other project factors?

The National Health Museum is a newly established, emerging institution, with an extensive set of tasks underway including funding raising, site acquisition and building design, collaboration and partnership development, staff recruitment and ongoing operations. The challenges expected during this development stage are typical of a young and energetic organization with an expansive mission.

With development of project plans during the first quarter, additional tasks and personnel needs were identified that took additional time for resource identification, recruitment and completion.

The project's external panel of experts in June 2000 identified additional data collection tasks. These surveys were then conducted during August -September 2000, with preliminary analysis completed in mid- October. An additional opportunity emerged to collect information from health and science educators during their annual meetings at the end of October 2000. Consequently, a no-cost extension was requested through January 31, 2001 to complete collection and analysis of the data, and to include the deliberation from the Museum's November 2000 Board meeting.

The Museum also saw a change in leadership at the Board level in the Fall of 2000, with the retirement of its founding Chairman, C. Everett Koop, MD, now Chair Emeritus, and the election of its new chairman, William A. Haseltine, PhD.

3. What challenges or successes were caused by factors external to the project?

An unanticipated delay in congressional action regarding the site for the museum during the Fall of 2000, has moved forward the overall planning horizon for the Museum.

4. If you worked in collaboration with other organizations, or depended on other organizations or institutions to meet the objectives of this project, how did those collaborations work?

The Museum directly collaborated with several organizations during the course of the project. Organizations included: The Office of Science Education, National Institutes of Health; the Division of Adolescent and School Health, Centers for Disease Control and Prevention; The National Association of Biology Teachers; American School Health Association; The MIT Media Laboratory; The Institute for Learning Innovation; and The Charles A. Dana Foundation, among others.

Examples of specific collaborative activities include a project with the Division of Adolescent and School Health (CDC) on their Media Sharp program. The Museum contributed space on its Access Excellence website which is targeted to educators. Teachers are now able to access these materials electronically. This collaboration is continuing.

Another example includes collaboration with the Office of Science Education (NIH) in jointly sponsoring two teacher focus groups. Through these focus groups we were able to assess the specific interests and needs of health and health science educators in Museum related programming. This was made possible through collaboration with the National Association of Biology Teachers that allowed a focus group of selected NABT members to be held during the Association's annual meeting in Orlando, FL in October 2000. Also during October 2000, a parallel focus group was held through collaboration and cooperation with the American School Health Association that allowed a focus group to be held with selected ASHA members during their annual meetings in New Orleans, LA.

Participants from these focus groups agreed to continue participating in Museum program planning specifically relating to website content development.

5. With a perspective on the entire project, what have been its key communications activities?

Because the focus of this project has been principally on activities related to planning and developing this new institution, communication activities have been limited. Descriptions of the findings from this project are now being incorporated into the print and electronic literature of the museum including its Newsletter and Website (<http://nationalhealthmuseum.org>)

Findings from research conducted as part of this project have been and are being incorporated into the National Health Museum's Business Plan and other print and promotional materials. It is also anticipated that findings from the original survey research will be submitted for publication.

The Museum makes frequent reference to the support of The Robert Wood Johnson Foundation in its meeting with key leaders and opinion makers. It emphasizes the important role this project, supported by the Foundation, is playing in shaping the scope and content of the Museum.

6. What have been the project's other sources of support?

The Museum has provided in-kind staff support during this project. Additional support has come through funds made available to the Museum through private and corporate donors.

The Museum also provided office space and related support for the project.

7. What was the significance of what was accomplished by the project?

The findings from this project have directly shaped the priorities and focus of the National Health Museum and identified specific, direct activities for the Museum to undertake in promoting the public's health.

The project has also directly contributed to the identification of new opportunities for partnerships with other national organizations serving public health interests, and has formed the basis for the identification of additional projects for which we are now seeking funding.

8. What lessons did you learn from undertaking this project?

The project had ambitious objectives that required significant time and resources to fully staff, plan and develop. The identification of the need for additional data from the potential audience for this Museum, as specified by our external experts, necessitated the request for a no-cost extension to the project from October 15, 2000 to January 31, 2001.

9. What are the post-grant plans for the project if it does not conclude with the grant?

1. Establishing implementation activities to incorporate *The Premises* into Museum programming.

2. Completing The Preliminary Exhibit Plan including:
 - Final determination of the 10-12 topics/themes to be presented at the Discovery Center
 - Identifying significant exhibit elements requiring architectural specification
 - Establishing specific parameters for exhibit activities
 - Identifying criteria for establishing learning objectives for exhibit
 - Identifying exhibit specific advisory needs (scientific and educational)
3. Identifying additional audience/visitor research requirements
 - Topic/Theme testing
 - Exhibit prototype testing
 - Additional audience testing regarding expectations and opportunities for non-exhibit programming (including website)
 - Special audience testing (school groups, teachers, selected special audiences)
4. Completing the overall Museum Programming Plan
 - Non-exhibit area programming (Bookstore, Food Service, Rental Space)
 - DC School Health Programming in conjunction with the School District of the District of Columbia and other partners
 - K-12 Educational Programming including special facilities and programs at the Discovery Center
5. Identifying additional opportunities to support the promotion of public health activities.
 - Develop proposal for a “Public Health Partnership with Museums and Science & Technology Centers”

10. How do you assess the Foundation’s role?

The role of the Foundation in providing financial support to the activities within this project has been critical to the creation of the programming being planned for the National Health Museum. It has allowed the Museum to integrate the health priorities of *Healthy People 2010* and The Robert Wood Johnson Foundation into the planning process as well as supporting and complementing the national health agenda.

It is hoped that the Foundation will continue its support and actively participate in the development of the content and programming within the National Health Museum in future projects.

List of Additional Reports and Related Papers:

“Concept Paper: Premises for the Intellectual Core of the National Health Museum”, October 2000.

“Premises for the Intellectual Core of the National Health Museum”, December 2000.

“Discussion Paper: Selecting Appropriate Outcome Measures for the National Health Museum”, June 2000.

“Discussion Paper: Target Audiences for the National Health Museum”, June 2000.

“Discover...: The Newsletter of the National Health Museum”, Autumn 1999.

“Discover...: The Newsletter of the National Health Museum”, Summer 2000.

“The Brain: It’s Who You Are –Exhibit Treatment’, Noel Gunther & Christian Lindstrom, April 2000.

“National Health Museum: Understanding Potential Visitors’ Perceptions of Health: a Front-End Evaluation Study –Interim Report”, Institute for Learning Innovation, September 2000.

“National Health Museum: Understanding Potential Visitors’ Perceptions of Health: a Front-End Evaluation Study –Final Report”, Institute for Learning Innovation, October 2000.

“Focus Group Report: Health Educators –American School Health Association”, Institute for Learning Innovation, November 2000.

“Focus Group Report: Biology Educators –National Association of Biology Teachers” with NIH Office of Science Education, October 2000.

“Exhibit Planning –a Template for the National Health Museum”, October 2000.