

**Supporting Statement A for
NLM Distance Learning Mentoring Program Study (NLM /LHNCBC)**

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Supporting Statement
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Section A

A.1 Circumstances Making the Collection of Information Necessary

This study will help fulfill the requirements of:

- **Executive Order 12862, “Setting Customer Service Standards,”** which directs Agencies to continually reform their management practices and operations to provide service to the public that matches or exceeds the best service available in the private sector
- **The National Library of Medicine (NLM) is legislatively mandated by 42 USC 286** (http://www.law.cornell.edu/uscode/html/uscode42/usc_sec_42_00000286----000-.html) to assist the advancement of medical and related sciences and to aid the dissemination and exchange of scientific and other information important to the progress of medicine and to the public health. This mandate specifically directs the NLM to promote the use of computers and telecommunications by health professionals (including health professionals in rural areas) for the purpose of improving access to biomedical information for health care delivery and medical research. One of NLM’s core missions is assisting those providing health information to the public to effective use of electronic services through Internet connections, training, and other means, with an emphasis on those serving minority groups, low income populations, and seniors, of providing outreach and training to the K-12 and college communities in bioinformatics and health literacy.
- **The White House Technology Agenda** (<http://www.whitehouse.gov/agenda/technology/>), which calls for creation of a transparent and connected Democracy. Specific actions are to:
 - **Open Up Government to its Citizens:** Use cutting-edge technologies to create a new level of transparency, accountability, and participation for America's citizens.
 - **Bring Government into the 21st Century:** Use technology to reform government and improve the exchange of information between the federal government and citizens while ensuring the security of our networks. Appoint the nation's first Chief Technology Officer (CTO) to ensure the safety of our networks and lead an interagency effort, working with chief technology and chief information officers of each of the federal agencies, to ensure that they use best-in-class technologies and share best practices.

A.2 Purpose and Use of the Information Collection

The study results will help determine better ways to measure the outcomes of existing outreach educational programs targeting K-12 students and the alternative technologies for delivering these programs to more students. NLM has offered a health careers distance learning program via interactive videoconferencing technology for 10 years to minority high school students in south central Los Angeles; Kotzebue, Alaska; and Honolulu, Hawaii. Students are exposed to a range of health professionals, mostly drawn from the same minority populations who discuss their specialties, careers, and information sources at NLM, NIH, and elsewhere for learning more. The study will coincide with a planned expansion of distance learning program to include University of Puerto Rico Laboratory School in the fall of 2014. The university also conducts a one week summer internship program in health careers for students in area middle and high schools that do not have access to the advanced videoconferencing resources and high bandwidth Internet access that students in the other schools enjoy. Moreover, the library has never assessed the impacts of its programs on student career choices or providing the program in languages other than English. While the current expanded program is offered to the Laboratory School, NLM will use lower bandwidth technology and University of Puerto Rico

Medical Campus faculty to provide a similar program in Spanish to students from area schools who are former interns and the library will experiment with instruments measuring their career choices.

A.3 Use of Information Technology to Reduce Burden

Internship participants will be recruited during the fall of 2014 for the summer program. This effort will not only require the students to have interest in the summer internship, but for both the students and schools to participate in the follow on distance learning program and to test the low bandwidth videoconferencing technology that will be used to deliver it via the Internet. Students will write short (less than 500 word) health career essays that will be rated for quality and will complete a general career inventory and a health science knowledge and interest inventory three times: 1) at the start of the internship to establish a baseline, 2) at the end of the one week internship, and 3) at the end of the follow on distance learning program that will be delivered once a month for 8 months in approximately one hour sessions. The post internship and the post distance learning measures will be compared to the baseline to appraise their respective impacts. In addition, the students will rate the instruction given in the one week internship and given in each distance learning session. The general career inventory will be done online and made available for one week before the internship, one week after the internship and one week after the distance learning program at the students' convenience. Paper copies will be made available of the health career essay question, health knowledge and interest scale, and the instruction rating scales because students will be expected to complete them immediately after the internship and distance learning session and each student may not have independent access to a computer.

A.4 Efforts to Identify Duplication

Since this is pilot distance learning and mentoring program, no data exist. Although the internship program has been conducted before, no measures have been taken about how it may affect career decisions. NLM has not made career assessments in its current distance learning program involving other schools. While there are general career inventories, PubMed and Google searches failed to identify a single inventory specifically for health careers. One was crafted drawing on information sources about health careers.

A.5 Impact on Small Businesses or Other Small Entities

N/A

A.6 Consequences of Collecting the Information Less Frequently

If information is not collected annually as proposed, the effects of the internship and distance learning program will be confounded and it will be impossible to determine the impacts of each individually. Participants will be asked to complete the inventories and write essays three times because the *changes* in essay quality and indicated general career interests and health science career knowledge and interests that will be indicators of the internship's and distance learning program's impacts.

A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This survey will be implemented in a manner that fully complies with 5 C.F.R. 1320.5.

A.8 Comments in Response to the Federal Register Notice and Efforts to Consult Outside Agency

N/A

A.9 Explanation of Any Payment of Gift to Respondents

Students will receive a \$25 gift card for their time and will get free career interest assessments.

A.10 Assurance of Confidentiality Provided to Respondents

Participation will be strictly voluntary and part of the internship application process. The application will contain a notification that accepted student interns will have to write three essays, take a general career and a health science career knowledge and interest inventory three times, and rate the internship and distance learning sessions and that acceptance of the internship also requires participation in a follow on distance learning program. Respondents will be assured that individual inventory results will only be shared with them individually and with their parents. They will be informed essay quality will be evaluated by these results will not be shared with the students and only used to assess the program, that none of the measures taken will affect their grades, and that ratings of instruction will be anonymous. All student identifying data will be coded and anonymized before being sent to NLM for analysis.

A.11 Justification for Sensitive Questions

No questions will be asked of a personal or sensitive nature. The general career survey simply tells students how much their interests match those of people in different professions. The health science career inventory simply reflects their judgments of what they know about health careers and their interests in them.

A.12 Estimates of Hour Burden Including Annualized Hourly Costs

NLM will gather information from a total of 50 respondents (students) using different collection instruments with the average response time projected for each participant to range from 5 minutes to 30 minutes.

	Annualized Respondent Hours				
Types of Respondents	Number of Respondents	Form Name	Frequency of Response	Average Time per Response	Total Annual Burden Hours
Students	50	Instruction Rating	9	5/60	38
Students	50	Essay completion	3	30/60	75
Students	50	General Inventory	3	20/60	50
Students	50	Health Inventory	3	10/60	25
TOTAL					188

Annualized Respondent Cost					
Types of Respondents	Number of Respondents	Number of Responses per Respondent	Average Time per Response in Hours	Respondent Hourly Cost	Total Annualized Cost to Respondents
Students	50	18	3.76 *	\$0	\$0

* Total of 188 annualized burden hours / 50 respondents

A.13 Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

N/A

A.14 Annualized Cost to the Federal Government

Cost of statistical consultant = \$750

Cost of University of Puerto Rico PI's time devoted to data collection (50% of total time) = \$1000

Cost of University of Puerto Rico Research Assistant time devoted to data collection (50% of total time) = \$2650

Cost of essay graders = \$2400

Cost of student compensation = \$1100

Cost of teacher facilitators monitoring data collection in schools (25% of total time) = \$2000

Cost of postage for mailing completed inventories, essays, and ratings from schools = \$150

Cost of NLM personnel analyzing data and writing publication = \$10,000

Cost of online general career inventory = \$1000

Total Annualized Costs = \$21,050

A.15 Explanation for Program Changes or Adjustments

N/A

A.16 Plans for Tabulation and Publication and Project Time Schedule

Results will be tabulated after the completion of the study. Results of selected findings may be published in referred journals and other publications within a timely fashion in order to contribute to the library literature.

A.17 Reason(s) Display of OMB Expiration Date is Inappropriate

We are not requesting an exemption to the display of the OMB Expiration date.

A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

This survey will comply with the requirements in 5 CFR 1320.9.