# The Influence of the National Institutes of Health Public-Access Policy on the Publishing Habits of Principal Investigators

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# **Abstract**

## Introduction

On April 7, 2008, the previously voluntary National Institutes of Health (NIH) publicaccess policy became mandatory, requesting that the NIH-funded principal investigators (PIs) submit to PubMed Central (PMC) immediately upon publication the peer-reviewed copy of their article, which will then become available for public access through PMC no later than after a twelve-month embargo period.

## **Research questions**

The questions this dissertation attempted to answer are:

- 1. Which factors motivate the NIH-funded Pls to publish in the PLoS open-access journals?
- 2. How do NIH-funded PIs perceive the NIH public-access policy?
- 3. How does the NIH public-access policy influence the PIs' publishing behavior?
- 4. How does the NIH public-access policy influence the PIs' decision to publish in open-access journals?

## **Methods**

During the period March-May 2011, fortytwo NIH-funded PIs who had published in one of the PLoS journals during the period 2005-2009 and who were affiliated with thirty-two academic institutions, research centers and hospitals around the United States were interviewed using Skype<sup>TM</sup> software. A random sampling from the RePORTER database was used for the selection of the participants. The participants were divided into two categories; the pre-mandate, who published in PLoS journals before the mandatory policy and the post-mandate, who published for the first time in one of the PLoS journals after the policy. During the interviews, a semi-structured interview protocol was followed, in which the PIs were asked to answer thirteen open-ended questions.

## **Discussion**

From the pre-mandate participants (N=42, n=15) only five PIs were self-characterized as open-access advocates. From the post-mandate participants (N=42, n=27) the open-access advocates totaled fourteen. The data revealed that the vast majority of the PIs are not influenced by the NIH public-access policy in their publication preferences. Since a large number of journals comply with the terms of the policy, the PIs choose where they will publish their papers based on the journal quality, impact factor, readership, wide and fast article dissemination and quality of the work.

# **Major Findings**

## **PLoS Publication Drive**

The PIs publish in the PLoS journals because of their high impact factor, publication speed, fair peer-review system and the articles' open-access availability.

# Impact Factor

- "PLoS
   Pathogenes is
   a very
   prestigious
   journal in my
   field"
   (ID:POST.9)
- "I used the PLoS system because these journals are most highly rated among the openaccess journals" (ID:PRE.8)

## Publication Speed

 "They have a very rapid turn out and time is short. The time from submission to publication online is short. You do want your research to be known by other people as soon as possible" (ID:POST.11).

#### Peer Review

- "I like the PLoS journals, because the editorial board is made of scientists and not professionals" (ID:POST.12)
- "I can get open access with solid peerreview" (ID:POST.09)

## Open Access

 "I liked the concept of open access and that is the reason we decided to go there. I see open access as being the future. I am really happy that we went this direction." (ID:PRE.1)

## Open Access Awareness and the NIH policy

The PIs believed that their familiarity with the NIH policy and the broad development of the open-access journals, and more specifically of the PLoS journals, occurred simultaneously. It cannot be stated with confidence that the policy increased familiarity with the open-access journals.

# Non-increased OA awareness

OA-advocates (N=42, *n*=15, 36%)

The PIs had a previous knowledge on the topic

The policy was imposed too late to cause any changes in the publishing habits

# Non-increased OA awareness

Non-OA-advocates (N=42, *n*=20, 48%)

The PIs are not interested in the topic

The open availability of the articles is not a decision-making factor

# Increased OA awareness

Non-OA-advocates (N=42, *n*=7, 16%)

The PIs publish in journals that have open-access guidelines

The PIs are inclined to publish more in open-access journals and support open access

The largest number of the participants mentioned that the mandatory NIH public-access policy did not increase their open-access awareness and did not cause a change in their publishing behavior. A limited number of PIs felt that there was a change in their awareness and that they were more inclined to publish in open-access journals.

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