## Webinar Transcript

My name is Molly Knapp from the training office of the Network of the National Library of Medicine. On behalf of the National Library of Medicine, Welcome to NLM office hours.

NLM office hours is an opportunity for people who use NLM products to interact with staff. Today we will talk about PubMed Central. A free full text archive of biomedical and life sciences journal literature. We are recording and posting the session so that those who are not available to join us today can watch them later. Since some of you may be first time attendees, I want to introduce briefly our organization. The National Library of Medicine is one of 27 institutes of the National Institutes of Health and the NLM is a medical library and maintains a vast list of resources and produces PubMed Central, the focus of our conversation today in the Network of the National Library of Medicine or NLM, has seven regional libraries and four national offices to provide equity access to health information champion health literacy throughout the united states via a network of libraries and community organizations.

--- the network is free to join and includes health science libraries, hospitals, public libraries, community-based organizations, public health departments and more. There are many ways for us to support you in your organizations and I encourage everyone the visit nnlm.gov to find your region connect with our free resources.

--- here is our agenda for today. We will begin with a brief product demonstration, and the remainder of the session is devoted to answering your questions. Today we are talking about PubMed Central, a free full text archive of biomedical life-sciences internal literature; since its inception in 2000 it has grown from 2 journals to more than 7 million full text record spanning the late 1700s to present. PubMed Central content is added to through off manuscript deposit and most recently the NIH preprint pilot.

A little bit about the session today. You are muted by default, and we will let you know winter raise your hand if you want to verbally ask a question. Or you can answer questions and send questions to everybody in today supporting us our Brittney and Catherine. To raise her hand, look for the hand icon on the bottom of your zoom screen. We will also use polls today. And to get is warmed up, we have a very quick poll.

You should see it pop up on your screen. There it is. If for some reason the poll is not accessible to you, you're welcome to enter the response in the chat. Here is the question. Were you aware about the new PubMed Central before its launch? Yes or no. Looks like 81% of you were aware about the new PubMed Central.

--- joining us today to discuss PubMed Central is Katie Funk, program manager for PubMed Central. Katie is responsible for PubMed Central policy as well as its role in supporting the public access policies of numerous funding agencies including the National Institutes of Health. With Katie are two essential members of the team, Chris Kelly, product owner and Erin Schmieder, product manager of the PMC literature program.

And I will hand it over to Katie to tell us what is going on with PubMed Central.

>> Katie: thank you Molly. Apologies for the mirror situation behind me I will try to keep my head from landing you but thank you first of the NLM and the Office of Engagement and Training at NLM for the invitation to be here today. We are very excited to talk to you all about what is going on at PMC.

As you saw from the poll, we launched a fresh look for PubMed Central this past Monday March 21. As a follow-up it will be great for us in the chat you could indicate the 80% who did know that a new change was coming how you heard about it. We are always looking to better understand what the most effective communication channels are for getting out the word about any changes that we are making to our system so any feedback you have on that would be fantastic.

- --- but we want to do today is walk you through some of the initial updates that we made while touching on those key areas that may be of greatest interest to this group: public access, preprint, etc. We want to get your perspective on these issues and discuss whatever else might be in your minds and as Molly indicated will throw in a few poll questions and we will do a live demo is always a bold move and we will be making it more exciting by changing drivers midway through. We will see how it goes. It should be fun.
- --- I am going to start the live demo at this point. And hopefully you are now seeing what looks like a very new looking PMC page. And what you're seeing here was actually available on PMC labs starting in the summer of last year. And this is part of an ongoing modernization effort we have at PMC we do not view it as done, but this is sort of mission accomplished on the first step in before we get on to what you see here, I want to touch briefly on the "why."
- --- this is ensuring the long-term sustainability of PMC and allow us to update the site more readily in the future and respond to trends in communication which everyone knows is a rapidly evolving field. And enable the transparency of the scientific record. And also, to increase the accessibility of the literature itself and we seen this a way to better serve the wide range of PMC users that spans librarians, clinicians, the general public and so on, so all of them can have the best possible user experience on a daily basis.
- --- you will notice in looking at this homepage that the updates give a more cohesive look across all the resources. I think we are still calling it the new PubMed.
- --- what you see here has not changed a lot and it has been reorganized and we are hoping this makes it a little less like a link farm and a little more user-friendly and less intimidating. They will always be this major search bar. While PMC searches is not necessarily the primary thing people use, we want to make sure that functional what they are searching so you will see this new full text archive and want to indicate to people

that they are not searching all of PubMed despite a similar look and feel.

--- below that is the "about PMC" which gives you a quick look into what we hold in the library and then the user guide for librarians who like to dig into the details of searching and the only major change is that we moved it out of the Bookshelf to keep it in a consistent user experience so we do not end up in another database when you are learning to use our database so you will see that has changed slightly.

--- this Collections pages entirely new to us even though what is highlighted here are not new features, but this is really our effort to start making transparent the many hats that PMC wears. It is a general archive as indicated by the journalist and we provide a lot of data sets for text mining, and we offer a lot of digitized historical content and collect covid-19 literature and preprint pilot we also do archive findings of research misconduct this is something we have been doing for several years to ensure the integrity of the scientific record even when a retraction may not be available for NIH funded research. We did not have an effective way of highlighting this in the past, but this gives you an overview of what PMC does under Collections.

---you will also notice this new navigation on all of these pages and from here you can get any of those categories that you just saw on the homepage. I am going to highlight quickly the "for author's" page. This one is very useful I think for any of you who work with researchers who have to get their papers into PMC. This page gives you a quick description of determining eligibility for PMC, how to get it in, how to get the holy grail of an PMCID. And out of curiosity it is time for the second poll question. Brittney if you could bring it up.

It focuses on how many of you support open or public access policies at your organization. This is an area we are very interested in providing more training and more guidance as people need it. You will see over in this related links section on the side,

We now have near the bottom here this NIH Public Access Compliance toolkit. And this is being maintained by NLM now and we are working with the Office of External Research at NIH to make sure this content is actively maintained.

I think that is an issue we have had sometimes in the past. There's a lot of public access information out there but it is not all really centralized and kept up to date.

We are hoping that NLM's involvement can be useful, and we are also very interested in hearing from your perspective what will be useful to see in the future as far as public access guidance and what might be great for either yourselves, or for your researchers to have access to that we could do better. If you have ideas, please put them in the chat. We are very open to that.

--- from here, I want to go back to the homepage and finish up this tour. Below these sections that we have just gone over you will still see this sort of counter of the number of articles we have in PMC, the number of

journals we are indexing that sort of thing that you may have been accustomed to on our previous homepage and at the bottom we are trying to expose the sort of "new in PMC" thing.

Looks like 3/4 of you support open access and public access policies at your institutions which is great. When other agencies ask how NIH has been successful as far as public access, we say in part it is because we withhold money; but the second reason is because of the librarian support we have gotten so many thanks to you all for that.

- --- as I was mentioning, this is our new in PMC section. The content has been maintained for many years, but it was sort of under the radar I think. This tries to bring you to the fore. It is a great place to go and find out what is new in PMC. We encourage you to subscribe either to the email list or the RSS to keep up to date. This is where we put new things out there and we will probably announce them here and that said, if you subscribe to the Technical Bulletin, you may already be getting those updates.
- --- this will be particular that I brought up covers things like a new Training video that we put out for the NIH manuscript submission system; changes to the NASA public access policy compliance routes and others. I will turn it over to Erin now to talk about what is and isn't changing at the search and article view levels.
- >> Erin: thanks for that. Bear with me one moment as I share my screen.
- --- and let me know if you can't see my screen. Katie?

## >> good

- >> Erin: this is the homepage that Katie walked us through. That brings us to our search page and if you're familiar with PMC the first thing you notice here is that almost nothing has changed on this page. That includes the features on this page, the filters that are available, and the back-end algorithm searching PMC. As Katie mentioned this platform update is a step one in a longer effort to update and modernize PMC. And in further phases we are looking at how to make literature searching more intuitive across all of NCBI's literature platforms and programs and that includes PMC, PubMed and hopefully this will lead to more intuitive and exciting changes on this page going forward but right now it should be what you are used to.
- --- the one small change that we did update the title of the top of the results to match what Katie mentioned, the text in the search bar to emphasize that this is a full text archive arm of NCBI literature.
- --- I'm going to click on an article here. Where you will see most of the updates and changes are on our article view. The first thing that you may notice is the updated look and feel, also the more consolidated right-hand column. Most of the work that we did there was based on looking at analytics and user feedback and design testing. We consolidated some features to reduce redundancy and retired some features that had little or no usage. And you may see that we're trying to move towards having

features that are similar or same across PMC and PubMed. All of our more popular or well used features such as Similar Articles, or articles that are cited by, are still here. They may be is in slightly different places. One thing that we have done that will hopefully help adjustment to the new article guide

-- excuse me the new article view -- is that we added a section to the user guides. There's two ways you can get to it. There is an update in a box here the top of the user guide and also a link here that says article quick guide. This is a step-by-step on how you can do what, where in the updated article view.

--- this is a list of the different features and functions. It should correspond with numbers on this outline, and we are consistently updating this what new features as it goes along. If you are unsure how to do something, check back here. Hopefully this will help you out. If you're still unsure or have questions or other kinds of feedback, we have the screen feedback button in a corner here that you may see and may have used and that goes to the helpdesk. And we welcome all kinds of feedback and on that note as well we would love to hear from you who join today in the chat what you might be looking forward to, or what we can do in our future updates now that we have moved to the new platform and as Katie said can be more agile and responsive in updates that we make.

--- you may also see(changes in) the article view itself in the text and navigation. That is something that is coming as well and a prime example of what this new platform will let us do in a more quick and responsive fashion.

---one other thing I wanted to highlight here is it you may already know the yellow boxes where we list other versions and updates of the article you're currently looking at and you can see that this article is a preprint. I'm going to go ahead and click on that through to the preprint version and turn it back over to Katie.

>> Katie: thanks Erin. We wanted to use this example in particular because it provides you both a nice view of the article as well as some of the related content. You probably saw that the article had been corrected and it also had previously been a preprint that we made accessible, and we wanted to wrap up today's demo with a quick reminder of the ongoing NIH preprint pilot and opened that topic up in case there are questions about it and at this point we have added 3100 preprints reporting on NIH-supported covid-19 related research so this is a pretty narrowly scoped pilot running since June of 2020.

And what we found to date is primarily these preprints are made available in med archive and bio archive and in slightly lower numbers in Research Square and arxiv and that is what reflected in both PMC and PubMed. We have been using this green labeling of preprint records in PMC and PubMed. They say this article is a preprint and it has not been peer-reviewed. And that ties into our third poll question, which is generally does this language kind of work for you?

Does this presentation work for you? One of the things that we continue to grapple with is serving a wide range of users and how to talk about preprint, something new and unfamiliar to a lot of people. And for those of you who are involved in this sphere we would love to hear in the chat how you describe or explain preprints to others. This is been kind of an interesting question for us to dive into and I know at one point back in 2019 I presented at a workshop on preprints. And to a t, every one of us started our presentations with the definition of preprints, so figuring out the words to talk about all of this is an ongoing effort and any success you all have had please feel free to share it with us.

--- so, I love that 100% of you feel good about this language. We have also done a survey earlier-- I should say later last year-- that was asking different types of users who land on a preprint if they knew what they were looking at and librarians were the only group that 100% knew what they were looking at so keep up the good work. I wanted to quickly -- Erin if you could go to the learn more link about the NIH preprint pilot.

--- this is where we have been collecting and making available information about the status of the pilot. As you see here we are still sort of in this phase 1, covid-related mode. We are in the middle of assessing it. It has been a long assessment, and I think that is because this is a very new kind of thing for NLM and NIH. We are still grappling with all of the things we have learned in the last two years.

We are trying to keep everyone up to date on the status of things. I owe The world another summary report and that should be coming in the next few weeks, and I also wanted to in the related links section highlight this librarians preprint toolkit another effort that we have been doing with the Office of Engagement and Training at NLM to get people the tools that they need and learn about preprints and talk about preprints to engage researchers on preprints. If you have not checked that out encouraging to do so.

 $---\ {\rm I}$  would love to open it up for questions now what you guys want to hear about the new PMC or the old PMC or other things on your mind. so thank you.

>> Molly: it is now time to open the floor to questions. You may raise your hand or enter your question into the chat panel. And PMC will answer them for you.

>> Katie: I see a few in the chat that I think we can start working through.

The first one seems to be a comment about the search results page not changing and Chris or Erin I don't know if you want to elaborate on that further.

>> Erin: sure. I'm sorry I did not see the question.

>> Katie: it is a statement.

>> Erin: so, I think -- as Katie and I mentioned, we made small text-based changes to indicate that PMC is a full text archive. That is a very initial step towards hoping for now clarifying for people what they are searching where. The PubMed search bar searches in a different database than the PMC search bar and where we want to go in the future is to give a way for people search across all of our literature and specifically indicate which parts of the NCBI literature they would like to certain while we are doing some user engagement and design work and other things around that, we thought it would be best to just leave PMC search as it was rather than making major changes and change them again in the future. That is why the search page is staying as it is for the moment.

>> Katie: thanks Erin.

Barrie -- asks whether non-literature database is on the queue for similar object in the future.

I will be honest -- one assumes we are facing similar issues in the platform we are all operating on currently. It is long-term, probably not the most sustainable, as far as getting developers or other folks in who could work on it, but this is something that is going to happen across NCBI databases in the coming months and years. I can say that we are also hoping to move our NCBI bookshelf off the old platform in the nearest future. That is something to keep and eye out later this year for.

--- Paul Levitt asks about a blog post in January reporting on an analysis of the quality of covid-19 preprints. It may require some level of quality filtering before ready for primetime.

So yeah. This is an area that we are very interested in, in the sort of overall scientific quality of a preprint. It is a huge part of why our preprint pilot is very narrowly scoped. I have a sense at this time that we have no plans to go beyond NIH-funded research as far as our preprint curation efforts. We find that the sort of NIH peer-reviewed process for awards can act as something of a proxy for quality.

It also gives us at NLM a sort of mechanism if we were ever concerned about the content of a preprint or if we were made aware of public concerns about the content of a preprint. We could go to the funding awards program officer and make them aware of the concerns. It gives a sort of a proxy for what we would do with a journal article. It is an interesting area.

We also have seen interesting research— I believe it was published in either plos one or plos biology about how an article may change from preprint to published version. The vast majority do not necessarily change at all. But I think they found that about 15-17% of cases the conclusions are impacted. That is something else that we are trying to keep in mind as well as we figure out a path forward.

--- Eva Marie-Newman asks, are there overlaps between PubMed and PMC?

The answer is yes. Breaking it down-- Chris you may have these numbers more readily available-- you will find that I think about -- you know

what? I am not even going to quote numbers. A good number of the journals that we fully archive are MEDLINE journals. Those that are in electronic format need to have an online preservation strategy to comply with NLM policy and PMC is one way they can comply with MEDLINE policy so there are several hundred journals that are in both PMC and in MEDLINE.

The other piece in my view is the author ministers that we collect under NIH's and other funding agencies public access policies and what we find Is that about 90% of NIH- funded research is published in a MEDLINE journal so we have 800,000 manuscripts that are in PMC; 90% of those you can pretty much assume are in a MEDLINE journal.

The ones that are not does not necessarily mean they are of low quality; it can mean that the journal is too new, not eligible for MEDLINE or PMC At this point it could mean that the journal is in a subject other than biomedicine or life sciences, so we do see NIH researchers to publish in computer science journals. Science is not siloed. There are certain titles that may not be eligible, though the manuscript was NIH-funded. There is a variety of reasons that are not. There is a study about this in one of my colleagues Lauren Topper that gets into this more.

- --- any hands raised? If there are in the missed them, jump in. There is a question about using AND in the search statement.
- -- are Boolean operators recommended in PMC? They are not recommended in PubMed simple search.

I would use them. This gets into, in general I would encourage people to search PubMed. PubMed was designed to support search. PMC is always believed in targeted at providing access. That said in this case we wanted to kind of get a specific article, and if you're looking for something very specific yes, I would highly recommend using Boolean. I would encourage you to go through that user guide I mentioned that is linked on the homepage or in the link that Erin provided earlier up in the corner in the search bar on the article page, and it gets into all the ways you can search PMC.

- --- and going back to what Erin mentioned earlier about future changes to PMC, that may be an area that we provide updated guidance on. For now, Boolean is still king, but you can definitely go without it.
- --- you're also welcome to give us feedback. We are open to hearing directly from folks to what we can do to make your lives better or what you would like to see us consider in the future. I would also open it up to our NLM colleagues. If you have questions that you know, come in frequently, we would be happy to take those too.
- --- Paul, thank you for mentioning the similar articles feature. Chris and Erin can speak to this better, but this is something we have been grappling with. How to best handle semi redundant features between PMC and PubMed and how they are used by your researchers. We know some people like to have them right by the article and some people like the cleaner look and do not mind being sent to PubMed.

- --- as you all engage with folks at your institutions on these new views, if they have concerns, please encourage them to use that green feedback button. This is a work in progress for us, as we understand the different types of workflows everyone has been using PMC for.
- --- so, Molly asks about whether the journals and PubMed Central are peer-reviewed and where I can find a list of peer-reviewed refereed journals. Chris, did you want to talk about the qualifications for PMC inclusion?
- >> Chris: sure. So, we have a process that has been in place since about 2014 that uses a combination of NLM's internal staff as well as a set of outside expert consultants, who are qualified to review the journals for PMC. We have a page on journal selection for PMC; Erin I don't know if you could quickly bring up the homepage and show that off quickly.
- If you go home -- and if you go actually "for publishers," it should be under -- back up to the top navigation. Under publishers again. General selection for PMC. Here we go.
- --- this page on the PMC site describes the journal selection process. There is a very detailed scientific and editorial quality assessment that is done and what we look for when journals apply during the application process they are required to have a number of peer-reviewed primary articles for NLM to review. This page describes the things that the reviewers consider as they review content.

Thank you, Katie, for dropping that into the chat.

- I would recommend taking a look at this page for a description of the process. Answer the question about MEDLINE and PMC overlap, we have journals that are currently indexed for MEDLINE that qualify for PMC's Scientific standard by default essentially. So, MEDLINE indexed journals can go through a screening process, but we are not going through the same review process.
- >> Katie: yeah, and if you scroll up this is actually something I am getting used to myself. Historically you would see the journal list link below the search bar, one of the things that is changing about the question how do you find out your journal participate fully in the PMC that is in the chat now.
- --- one thing you can do now is go to the homepage and find the journal's list link there. And if you go to the Collections page we showed earlier, I believe the first collection we highlight is the PMC journal list. This takes us to the page that Erin was showing. This [page design] has not been updated at all and its usability limitations as we call the more well-known and they are on the block for something for us to look at in the coming months
- -- 12-18 months let's say -- you can always come to this journal list and look at the participation level column to see whether a journal is currently archived in PubMed Central. It is not the most user-friendly. This is another place where if you want to provide feedback, we are very

open to it and we have some mockups if you want to reach out to us. We will be happy to put out in front of you for feedback.

- >> Chris: definitely if you use this journal list even infrequently and have thought about it we would love to hear from you, as this is an area we are looking to improve and we are hoping to line up to the feedback we are receiving folks from our different groups, different user groups have different needs, to talk to them about how they are using the site that they would like to see and so on. The more feedback we get the better.
- >> Katie: thanks. And Marilyn, I'm glad you love PubMed, so do I. As far as your question about occupational therapy and occupation terminology, I don't think any of us can speak to that in a useful way. But it might be an area where we either through NNLM or someone can find you the right person, but I believe someone in our terminology department would be better equipped to address that.
- --- looks like we have a few more minutes. Any last burning questions? Alright, should I turn it back over to you Molly?
- >> Molly: I suppose you can.
- >> Katie: I don't remember if we have a wrap-up plan.
- >> Molly: we do. Let me go ahead and share that wrap-up plan. Thanks everybody for your questions. If you have any final questions we have five more minutes and you have three experts, the deliverers of PubMed Central at your disposal to ask that question. In the meantime, I want to highlight a few things. First, I want to thank you Katie, Chris and Erin for sharing your extraordinarily valuable knowledge with us today. I learned a lot. I hope everybody did too.
- --- if you would like to learn more about PubMed Central, public access and preprints we have a couple of resources for you. You can see the PubMed Central overview on our website and that will give you an overview of things.

Coming up in April is our four-part how PubMed works series and the Selection one, the one on April 8 provides details about the content of PubMed Central and the selection process in terms of how PubMed Central populates into PubMed.

And we have the NIH preprint pilots and toolkits an introduction information for librarians and researchers and finally much love to the NLM Technical Bulletin, you can learn about upcoming trainings and products and updates and you can sign up for that as well to stay current and if you have any questions that we did not get to today you can use the link to the NLM support center on any NLM webpage for assistance so look for that NLM support center and keep in mind that PubMed Central has a feedback button if you discover something odd. Or if you have a question, you can use that feedback button too.

>> Katie: or something great!

- >> Molly: all feedback is good feedback.
- >> Katie: and it does look like one last question came in if you want me to dive into it real quick.

Kimberly asks in the new view if a PMID appears as a link on the PMC article if it also appears in PubMed?

When you see a link in PMC you should see a PMC link to the article in PubMed. There may be some indexing delays but generally speaking that is the way it should work. If there is no PMID in PMC the article appears only in PMC. Historically there is only a small list that are PMC-only and not PubMed. Obituaries, book reviews and poems. If you're only using PubMed, you're missing out on some great poetry. For an article to show in PubMed, the journal has to be in the NLM catalog and because of the influx of covid literature in a wide spectrum of journals across subjects, across languages, not everything we are receiving is in the NLM catalog and we have not committed resources to cataloging everything, particularly those records that may not be permanently in PMC. You may be seeing a few more cases than usual of those that are only in PMC.

>> Molly: interesting. So, and the final take away is evaluation because we would love to have your feedback on our session today. NLM office hours is new. When you leave the session, you will get a pop-up for an evaluation form, and we encourage you to fill it out and if you want CE from MLA, follow the directions on the screen.

Thank you to our fantastic panelists, and we will see you next time. Goodbye.