

Andrew Kelly  
Behind the Mask  
June 29, 2021

Barr: Good afternoon. Today is June 29, 2021. My name is Gabrielle Barr, and I'm the Archivist for the Office of NIH History and Stetten Museum. Today, I have the pleasure of speaking with Mr. Andrew Kelly. Mr. Kelly is the Budget Officer with the Office of Administrative Management at the National Center for Advancing Translational Sciences, otherwise known as NCATS, and today he's going to speak about some of the financial components of funding some of NIH's COVID projects. Thank you for being with me.

Kelly: Yep, thank you for having me.

Barr: To begin with, what are some key components of your job as a budget officer? Everyone needs money to operate, but it's always unclear what you do.

Kelly: I mean you hit the nail right on the head there; everything costs money. Ultimately, everything needs to be planned and then reported back, and so I am involved heavily in a lot of the planning and the reporting back portion. It's essentially, "What are you going to do with your money?" and then, "What did you do with your money?" Answering those two questions is the large majority of my job.

Barr: How do you go about helping with the planning and the reviewing?

Kelly: I work with the leadership at the Center, as well as the scientists and the office and division directors to understand what their needs are and what their plans are. Then, it's a matter of trying to fit that in to match the budget. It's a lot of meeting back and forth to try and put words to what they need, and then essentially a cost to what it is they need.

Barr: Do you tend to plan projects out years in advance or it depends on the project?

Kelly: Obviously with COVID nothing was planned in advance, but normally we're about two years in advance. This is June of 2021, and we actually were just doing planning for fiscal year '23. We've got to be ahead of the game. Because of how long a lot of our either contracting or grant cycles take, both in terms of getting new grants in that have to then get peer reviewed, and then put out in a proper manner, it just takes time. The planning needs to be in advance of all of that.

Barr: Do you work in your position with both extramural and intramural scientists? If so, how do you go about working with these different groups?

Kelly: I do work with both. I guess the way that I work with them is different in that the extramural folks are really talking in terms of grants, in large initiatives, whereas when I'm working with the intramural scientists, they're literally talking about things like pieces of equipment. It's much smaller, more granular things that they're buying – like they're buying supplies – whereas the extramural scientists are giving out large chunks of money. The way that we work reflects those differences.

Ultimately, the meeting with the extramural scientists really revolves around the grant life cycle, whereas meeting with the intramural scientists revolves more about the procurement life cycle. Both of them are a little bit different.

Barr: When you do the planning, do you do it with each particular kind of study or with individuals? Or do you tend to meet more with administrators or department heads with your role?

Kelly: We meet regularly with the division and office heads, but when it comes to developing new initiatives, anybody at NCATS can potentially be the person to think of the initiative. We have a regular initiative development meeting that we do twice a year where people are asked, "What would you like to do?" They're able to bring those initiatives forward and get them vetted with their peers and bring them in front of leadership to decide if that's where we want to prioritize our research.

Barr: Having worked on so many projects, do you ever advise the PIs [Principal Investigators] on how to shape and review the budgets of their studies?

Kelly: I don't think I get that granular when it comes to this, especially with the intramural PIs. We tend to give them a larger budget, and it's really their job to meet their budget. I don't tell them ultimately how to spend their money that granularly. What I may do is if they have questions about spending rates, like how are they spending: fast enough, too slow in terms of being able to spend their budget for a year, or if they've got a multi-year project where I might advise them, "You might want to wait on one of those big procurements," or, "Yes, do it this year," or, "Maybe wait until next year." That kind of thing. It's really that they've got a much closer understanding of what they're going to need, but sometimes working through time can become difficult. That's where they need me to help.

Barr: Yeah. I've heard from people that devising a budget for a clinical trial, especially if you're a novice, is very challenging.

Kelly: Yeah. I mean clinical trials are again – part of that is because of just the size, right? They're big, and they take a lot of time, and that component of it can be challenging.

Barr: How do you work with collaborative initiatives like HEAL [Helping to End Addiction Long-Term] or any of the others that NCATS sponsors?

Kelly: Yeah. We've been involved in the HEAL program right from the start, and with that, because there's so many different people involved, it's really as much of an exercise in communication as it is in anything else. It's really making sure that what one person heard is actually what the person that told them meant, so that when we are working on initiatives that are managed at a higher level – the HEAL program was managed by the Office of the Director, and ultimately they had different research priorities that the different ICs [Institutes and Centers], such as ourselves or NIDA [National Institute on Drug Abuse] or the Institute of Neurology, were kind of meant to fit into in order to make sure that they were really getting a good spectrum of research for opioid abuse, addiction, and pain. We wanted to make sure that we were fitting into the right portion of the science so that we weren't overlapping, that we

were really complementing all of the other initiatives that were going on. A lot of that really just involves communication – making sure that you understand where you fit and how you can best help out.

Barr: How do you track all these different endeavors that NCATS helps fund? I'm sure different things are due at different times, and you have to fill in certain forms.

Kelly: Yup, that can be tough, because it's in lots of different places. When one person owns it, they may have a particular way that they want to see information, and so really making sure that we have really good notes becomes really, really important. The HEAL program has been going on for three or four years now; it's been going on for a few years since 2018. Ultimately that's not something that you can just remember. Three years later, what was it that we needed to do to start this initiative? We try to really track individual projects where all the information gets put into one place so that all of the analysts on my team are able to know, "Okay. If it's a HEAL project, you need to go here to find the information." Then, making sure that any time any kind of communication goes out, that it's stored there. That way when we're looking, we see how we responded and what is the information that went into that response. Because a lot of times, you're looking at things a year later the next time and trying to remember what was going on is just impossible. You got to make sure that all of your information is in one place.

Barr: Do you all use a certain system or...?

Kelly: For a lot of our data analytics, we use the Qlik platform. We use Qlik Sense. I mean, ultimately, things are always in Excel, and we use the NIH data warehouses, which are great. For administrative data, the nVision system, and then the grants system as well, just in terms of really finding that source of truth, for that type of information we try to go right to the NIH source systems, and then we will supplement that with whatever it is that we need to make sure that we understand how it fits overall. Then we'll put it into our QlikView dashboards or Qlik Sense dashboards to be able to see and analyze.

Barr: Do you have to be thinking about security and privacy with your work, or that's not a major concern?

Kelly: Privacy is not as much of a concern because there's no personal identifiable information or anything in what I'm dealing in. Ultimately, security and data access, I guess, are the two parts that I have to be concerned about. Luckily a lot of that is handled for us in that the data systems that we use have professional teams that do most of that for us as long as we follow their rules. Then we stay in bounds.

Barr: How do you apply your interest in data analytics and visualization to financial management?

Kelly: I feel like I just try and bring it in whenever I can. The data analytics and visualization really bring a better product to what I do by really trying to integrate that passion of mine into my day-to-day. It actually makes me better at my job, but it also helps to tell the story better. It often helps when people are looking for a particular problem, or they're looking for something that happened in

the past. Being able to really dig in and show it to them in a nice visual form can answer a lot of their questions faster. It certainly helps with a lot of the annual reporting that we do or even some of the financial reviews that the intramural scientists especially have to go through. We produce a report for them that I think helps with really showing their budget and what they've done over time.

Barr: When did you begin thinking about allocation of resources in regard to the emergence of SARS-CoV-2?

Kelly: I have a distinct memory of a conversation that I had with one of our intramural scientists. It must have been actually in February of 2020. It was before everything shut down in March, and he was talking about this thing going on because we had actually been involved in in the response to Zika a couple of years earlier. Our intramural scientists are very much interested in trying to be ahead of what's going on. They started buying some things for this still kind of unknown SARS. I don't even know if it had a name at that point. It certainly hadn't settled on COVID-19, or maybe it had, but it just wasn't in the popular lexicon at that point. That was my first memory of it, but ultimately it was amazing – the pivot that happened between March and April in terms of everything stopping. All the previous plans that we put forward over the past couple of months, we stopped in their place, and we're like, "Okay, what are we going to be doing?" We were totally reworking our budgets to make sure that all of our money was going into COVID research, as much as it could, and really stopping other types of things so that we could focus on the pandemic.

Barr: Wow, that must have been quite a thing. What were some of the issues in the spring of 2020 with understanding the types of research PIs were engaged in and the types of COVID projects that those at NIH wanted to get underway?

Kelly: A lot of the issues were just because everybody was doing things so fast. Everyone had that, "Stop. We need to respond," moment. Lots of people were going in lots of directions in order to try to best respond, and ultimately the coordination piece of that really became key. Really understanding: "What is it that other people are doing? Do I have needs that somebody else could fill? Does somebody else have needs that I can fill?" We're not used to doing that at the NIH. There's lots of different things going on. It is the "National Institutes" with an "s". They're 27 different entities, and so they don't always talk on a real-time basis. That was really what was required – that real-time coordination. I think that it really took people taking a second, which was hard at that time, to breathe when everything was moving so fast, and saying, "We really need to get a handle on this, and understand what people are doing for COVID across the NIH."

Barr: Do you talk to the other budget officers and the other institutes and centers about what their experiences were like?

Kelly: Yes. We actually meet twice a month. It's a good small community within NIH where we all do talk to each other and try and share ideas. Because we all have common issues that we work on, we try and help each other as much as possible. But really, when it came to the coordination – what is interesting is that the person I ended up getting in touch with, through my interest in data analytics, was one of the deputy directors within the Office of Intramural Research, and she reached out to me basically saying,

“How can we analyze these projects?” That's where a lot of the work that I got in was initially – with kind of developing surveys of what the intramural scientists were doing.

Barr: Can you talk more about the survey and ultimately the dashboard that you helped create?

Kelly: Yeah. That ultimately came out of the need that normally the intramural projects are reported on an annual basis, because I guess that's usually about the right amount of time where things change and where you need to see that information. Obviously in April of 2020, we couldn't wait until October of 2020 to find out what all the projects were that were starting within the NIH. That's where the idea of putting together a form to basically go out to everybody and say, “What is it that you're doing? What do you need? What can you help with?” We created a SharePoint survey so that we could standardize the information that we were going to get back so that we could then create a dashboard to provide to leadership and PIs across the intramural program. This was so they could see, “I am doing something similar that somebody else is doing,” or if they checked that box of, “Yes, but I need access to this,” then maybe you could find out who had access to that, that could help. It just really fostered a lot of collaboration and the ability to coordinate and make sure that people weren't duplicating effort and things like that. It was really a matter of I had a phone call one day with the someone from the Office of Intramural Research where she basically said, “Help,” and within a week to 10 days, we had this survey up and the dashboard available for people to see.

Barr: That's incredible.

Kelly: Yeah, no. I mean it was very rewarding for me. That's not the kind of normal budget thing that I do, but it was just that interest that I had in creating the visualization, and the fact that I was involved in a trans-NIH committee for it with the NIH analytics community of practice. Because of the connection I made through that, we were able to put this together.

Barr: Did this dashboard help answer other types of logistical questions like distribution of PPE [personal protective equipment] and where it should go? And in addition to money and equipment?

Kelly: For the PPE, actually the OD's [Office of the Director] property office did a separate dashboard just for that. So that they did create using the exact same Qlik Sense platform. It was basically a dashboard for PPE so that people could see masks are here, gloves are there. They could really take a record of, “This is when things were received. This is when things were shipped out.” Ultimately that was a big issue when you didn't always have people on site; really understanding where were these very vital things?

Barr: Are you aware of any instances where there was duplication and this platform showed that and that was alleviated because of it?

Kelly: I can imagine there were. Ultimately, a lot of what I did was put it together, set up the reports, and send them out. Then, I know that there initially weekly, and then it became bi-weekly, meetings where a lot of the scientific staff were looking at it in order to analyze what was happening. I think that that was part of what they were doing – looking at that. I know that similar efforts were put together in terms of

ongoing clinical trials where they were really trying to look at what were different clinical trials emerging in COVID space that we weren't funding, multiple trials that were doing the same thing. A lot of it was really trying to provide the edge, the awareness so that duplication wouldn't start in the first place.

Barr: You use the same Qlik platform to help with particular COVID research initiatives like some of the serosurveys. Can you talk a little bit about that?

Kelly: Sure. The serosurvey was a study that launched pretty early on where we were trying to understand within people who were not diagnosed, who had not been diagnosed with COVID, what percentage of them had had COVID and maybe didn't know. They needed to recruit 10,000 people across the United States and try and have it as reflective as possible as a sample set of the population in the United States. They really wanted to make sure it wasn't just all people from Maryland or all people from Texas; that it was really people from every state, from urban and rural counties, men and women, people of different age groups. Ultimately, we created a Qlik dashboard that showed the enrollment in that survey so that the PIs could actually look at it every morning and say, "Okay. This is how many people we enrolled yesterday. This is where they were, where they were enrolling, how it fits within our targets for different geographic areas." All these different categories that they were trying to hit in terms of really trying to be as reflective as possible of the United States population, and it was something where they were really kind of that near real-time feedback that they could give to the call centers basically saying, "Stop in Maryland. Start in Montana. Or really try and find people who are over 65 in the Southwest."

Barr: That's wonderful. Do you think that this kind of effort would be used for other COVID initiatives that NCATS supports or even just in general with other kinds of research?

Kelly: Yeah. Another study that we actually did, that started later, was for convalescent plasma, and we actually used the platform to automate the reporting of enrollment. There was a lot of interest in this particular study both at the NIH but also at the department [Department of Health and Human Services] level, and it was taking a good amount of time for where people really wanted every day to know how many people were enrolling across the country. This was a multi-site study with research sites all across the country, so it was taking people a good amount of time to actually collate that data and send it out. We were able to use this platform to automate that whole process, so that people could just literally from their smartphone go in and say, "We enrolled six people yesterday." Then that would come to us, and it would produce a daily report that could be emailed to leadership that showed a nice little bar graph of how the enrollment was going and which sites were enrolling on any given day. That automation just really helped to make sure that our staff were really focusing on the things that they needed to and not just on the kind of mundane data collection duties.

Barr: Yeah, that's really great, because so often people discover that they are deficient in one area later and kind of play catch up, which is an issue. As someone who oversees the budget for the Clinical and Translational Science Awards Program and that has been in charge of some of the ACTIV trials, can you talk about your involvement in helping to secure and manage resources for these trials?

Kelly: Sure. The ACTIV trials ultimately were very large. The Clinical and Translational Science Awards Program [CTSA] funds some very large awards to the biggest research hospitals in the country. They really work as a network, and so when the ACTIV [Accelerating COVID-19 Therapeutic Interventions and Vaccines ] trials started, I think that the CTSA program proved to be very valuable. It did have this nationwide network of research hospitals that could come, kind of shovel ready, to set up and ultimately using them for two of the ACTIV studies (what they called ACTIV One and ACTIV Six) as well as the convalescent plasma trials, just because the network was right there. Having the CTSA program helped to be able to justify that this is the right group to do these trials, because we'd be able to access populations all across the country in order to study therapeutics for COVID-19.

Barr: Have you been involved in any other COVID initiatives at NIH or outside of NIH?

Kelly: Not outside NIH. I'm trying to think. The convalescent plasma one was really interesting, and then as we're really moving forward with ACTIV One and ACTIV Six, I really hope to see what they discover and what unfolds with them. Then NCATS is becoming involved in the next viral pandemic preparedness. Ultimately, we don't want something like this to happen again, and so we want to make sure that we're really focusing on being able to have ready-made therapeutics for whatever the next thing might potentially be. Planning for that is kind of what's going on now.

Barr: Well, that's a really big thing. What were some of the challenges that you and your team have encountered with your COVID work?

Kelly: I think that some of it is what other people have encountered as well. I think everyone had to learn how to work remotely. I think that's something that luckily my team had a little bit of a jump start on, because there's a woman on my team who actually was remote prior to COVID, and so we'd started to get used to using some of the remote teleconferencing tools. But then we had to get everyone else up to speed. Then even things like COVID-related procurement delays. If people are trying to buy things, and they're unable to purchase them, it can really put problems in a lot of people's plans.

Barr: Do you help facilitate procurement? Like your office?

Kelly: My office does. It's not something that I do. I'm more focused on just the budget part of it. Making sure that they're spending that correctly, but there are other people within my office that work directly on the procurement part.

Barr: How has COVID impacted you personally as someone living through COVID-19 as well as working through COVID-19?

Kelly: It's absolutely changed the way that I work personally. I mean it was because how much shut down over the last year and a half. Both my wife and I lost grandparents during that time, and just not being able to grieve the same way, being able to be with family the same way you normally would when that happens is really one of those... It wasn't directly related to COVID, but it's just one of those things that COVID took away from us. That kind of normal ability to grieve for people and to celebrate people that you normally would when that happens.

Barr: Yeah. What have you learned from this, a little bit over a year of COVID, as a budget officer that you would apply to other work situations in the future?

Kelly: I think just the coordination, the tracking, and keeping really good notes. In June of 2020, I actually gave a small presentation just to our Center talking about what have we done so far, and that was only three months in. Still at that point, it felt like there had been so many things that had happened. Actually now a year later, I'm really glad that I put that presentation together because it gives me the ability to go back and really see what it was that we were planning and what things were called at the time. Ultimately a lot of times with initiatives like this, the names change over time. If you don't really record that for posterity, you tend to forget and you tend to not really understand how an initiative started in one place and changed over time to become what it is now. So really, keeping track of those changes is something that I'm going to try and do with my day-to-day jobs, so that I'm able to, over time, really look back to understand: this is how we initially planned and this is what happened. Maybe learn to do it better, learn to plan better.

Barr: Yes definitely. Well is there anything else that you would like to share as somebody who is at NIH, but also who is living through the pandemic?

Kelly: That's a big question. I don't know. The biggest thing that I feel like I've learned is just that communication and patience are key, and to try and do both as best as you can.

Barr: Definitely. Well, I wish you and your team of course all the best. I look forward to seeing what the future holds.

Kelly: Thank you. I enjoyed this.

Barr: Thank you very much for all your contributions.