One Health Movement is a Paradigm Shift for Public Health Practice

People think of three things when they think about the One Health model: animals, people, and environment. Bruno Sobral also thinks of three different things: systems thinking, education, and scientific discourse. The common ground between the two sets of principles - and the very heart of the One Health approach - is collaboration across traditional disciplinary and organizational boundaries.

Bruno Sobral, PhD, is the Director of the One Health Institute (OHI), Office of the Vice President for Research at Colorado State University (CSU). He is also a Professor in the Department of Microbiology, Immunology and Pathology at CSU, and a Professor of Biostatistics & Informatics at the Colorado School of Public Health.

Though One Health is not a new concept, it has become more visible in recent years because of emerging health threats related to the relationships between animals, people, and the environment. Recognizing the need for more focus in this area, the Office of the Vice President for Research, in collaboration with all eight CSU colleges, awarded funding to seven projects, setting in motion the formation of the One Health Institute.

The institute’s director, Dr. Sobral shares what inspires him about the One Health initiative and his experiences starting the One Health Institute, which opened its doors in November 2016.

Seeing the Whole System
In the broadest sense, the highest potential of the One Health movement focuses on cultivating health rather than fighting disease. Current strategies that use reactive problem solving are like a game of Whack-a-Mole; challenges continue to arise faster than they can be resolved, since their origins are often systemic.

On the other hand, One Health challenges technical experts from various domains to consider health as something more than the sum of its constituent parts, and more than the absence of disease.

For Dr. Sobral, One Health embraces the complexity and messiness of health and illness. Addressing this complexity requires the expertise of many stakeholders and stretches their capacity to work in teams in communities. He favors the term transdisciplinary instead of multidisciplinary as the latter suggests many experts working in isolation; a model that he says is insufficient.

The whole-systems approach used in One Health recognizes that the context, knowledge, and resources brought by communities is as important as external expertise.

For Sobral, the segregation of trained experts and their target communities is one of the greatest barriers in current health promotion efforts.

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Global Health Link (GHL): What is required to make a pandemic?
Dr. Chu: What do you think the definition of a pandemic is?
GHL: A novel disease, that spreads rapidly across the globe?
Dr. Chu clarified that a disease doesn’t necessarily have to be global to be a pandemic, it can move between regions or across international borders. For example we face seasonal influenza pandemics annually and each new emerging influenza virus strain has the potential to become a pandemic virus like it did in 2009 with the emergence of H1N1 Mexico variant. Similarly, the disease itself doesn’t need to be novel, but if it moves to a region where the population is naïve to it, the spread of that disease, as well as mortality and morbidity rates can increase rapidly.

With this in mind Dr. Chu explained that “pandemics” are happening all the time, but to direct the conversation she suggested thinking of pandemics as something that can become global, highly transmissible, highly infectious, and that we currently don’t understand well enough to know what kind of treatment is required and therefore has the potential to cause mass hysteria. But Dr. Chu’s expertise isn’t just in defining a pandemic, it is preventing them, so the next question seemed obvious, “How do you prepare for something like that?” As it turns out there is a tremendous amount of effort put into trying to prepare for, or more accurately, to prevent, a pandemic. A large network of 194 countries are signatory members to the World Health Organization’s (WHO) International Health Regulations (IHR). IHR is intended to ensure that a country’s health system is capable of doing routine surveillance work, which provides a baseline understanding of disease transmission and allows the rapid identification of a new disease or perturbation in that area. Ideally, the health system will be robust enough to detect perturbations, investigate them, and reported them to the WHO, which can then determine if the disease has been detected in other regions.

These steps help ensure early identification and isolation of regional outbreaks that could potentially become global pandemics. Local surveillance efforts are evaluated for their effectiveness by a third party through a process called Joint External Evaluation (JEE). The JEE consists of outside parties performing a rigorous assessment of a country’s preparation and capacity to respond to an outbreak. The scorecard allows countries and the IHR governing bodies to recognize and fill in the gaps in order to adequately address barriers to their ability to respond to an outbreak.

While this strategy sounds quite effective, in reality it can be difficult to implement.

As Dr. Chu notes, “you can have very prepared countries and very underprepared countries, and often these diseases have a greater impact on the underprepared… it is really the poor and low to middle income countries that don’t have the necessary resources, so outbreaks can fester for a long time and lots of people must die before a flag is raised.”

May Chu, PhD, Clinical Professor of Epidemiology at the Colorado School of Public Health

No News is Good News When it Comes to Global Pandemics

A Q&A with Kathleen L Arnolds, Staff Writer, Center for Global Health

May Chu, PhD, Clinical Professor of Epidemiology at the Colorado School of Public Health has previously worked as the Senior Science Advisor for the Centers for Disease Control and Prevention (CDC). Ironically, Dr. Chu had to reschedule the initial interview for this newsletter piece because she was needed to help address the current Ebola outbreak.

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As Dr. Chu notes, “you can have very prepared countries and very underprepared countries, and often these diseases have a greater impact on the underprepared. The well-prepared countries can generally manage their own outbreaks, but it is really the poor and low- to middle-income countries that don’t have the necessary resources, so outbreaks can fester for a long time and lots of people must die before a flag is raised.”

Outbreaks in this sense can be an indicator of poverty, of governance capability, and a commitment to infrastructure. If a country has a robust health system and is prepared for the routine health issues, it will be better prepared for an emergency.”

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One Health Movement is a Paradigm Shift for Public Health Practice

(Continued from page 1)

Dr. Sobral contends the specialized and reductionist approach to health dangerously misunderstands the dynamic influences that support or hinder healthy states. One Health seeks to change this standard of practice.

“For most of the existence of Homo sapiens, the concept of animals, people, and places have been inseparable and interdependent. It seems that the natural understanding of health has always been something whole that involved the environment and other forms of life,” says Sobral.

“Now we are on a path that is leading to sectoralization, specialization, and division, but it has not been this way forever and we can make it anew again, differently. Part of the journey of One Health is to regenerate the meaning of health, which is about wholeness and not parts.”

So how does this approach to health, which is as broad as it is deep, become the new modus operandi for professionals, policy makers, and community members?

Regenerating Scientific Education

Just as Dr. Sobral defines the Latin root of health as ‘wholeness,’ he also identifies a Latin root for education as ‘to bring out.’

“I want to regenerate and apply this meaning of the word educate. In general, I think we are over-committed to the idea of education being the process of filling an empty vessel. Freire says we are all able and skilled at science, but not all of us have the credentials to label oneself a scientist,” says Sobral.

Dr. Sobral greatly respects the work and philosophies of fellow Brazilian Paulo Freire. An educator and philosopher, Freire is well known for his support of critical pedagogy, which views teaching as a political act that is inherently connected to social justice.

Freirean thinking aligns well with Sobral’s own asset-based community development approach, and the enterprise of ‘bringing out’ the innate wisdom of people and communities. Placing emphasis on the things that a community is doing well and using community knowledge are essential to the One Health approach.

Sobral believes that using the One Health initiative in this way has the potential to transform the parameters of public health education to establish new practices that will advance health equity.

At the heart of One Health is a mission to find new ways to intervene effectively in the machinery of complex systems. Traditional discipline-based educational strategies will produce the same status quo results that have been unsuccessful in affecting substantive changes in population health outcomes.

Dr. Sobral believes there is no lack of data, evidence, or highly trained physicians, veterinarians and environmental scientists.

He believes the biggest challenge is to engage multiple sectors and community partners to generate impact. Building this capacity will require a shift in the perception of and including those who are not credentialed through current standards, yet have meaningful, actionable knowledge.

Changing the Narrative

Truly transcending disciplinary boundaries and throwing open the doors of science and education is a paradigm shift with many implications. For one thing, the One Health approach cannot be applied from ivory tower.

Sobral says, “If you are going to work in complexity-characterized systems, you need to be present, and trusted, and seen as something more than a drive-by researcher. Communities are smart and have agency, and so you have to be able to sustain relationships with communities in a way that is independent from project funding.”

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The One Health Institute has taken on this issue by putting community members at the center of operations. Through their Health Disparities Grant Program, the Colorado Department of Public Health and Environment recently awarded a $750,000 grant to address housing instability and related adverse childhood experiences.

The project, “First 1000 Days: Addressing Toxic Community Stress and Housing Instability in Families with Young Children - A Two Generation Approach,” will take place in Larimer County over a period of three years.

The One Health Institute, the Early Childhood Council of Larimer County, and the Family Center/La Familia will collaborate with community members to promote changes to zoning and policies at the city and county level to increase resident-owned housing options. They will also work to increase culturally sensitive mental health services at the neighborhood and community levels. “We flipped the traditional structure on its head,” says Sobral. “The principal investigator is not inside the university. The project proposals are sourced from the community and their advocates.” This project will work across disciplinary and agency boundaries to increase community resilience through a resident-led community participatory model.

Dr. Sobral sees opportunities for this type of community-led collaboration globally. At the same time, he recognizes that this power sharing approach challenges conventional perceptions of leadership, and may raise the hackles of those who are most comfortable within known hierarchies.

“We have come to believe that leadership means positional authority. However, leadership is not about positional authority, it is about crossing boundaries. Often times, recognitions of achievement are rewarded with positional authority that is not consistent with an individual’s leadership qualities. Alternately, someone with deep expertise can be positioned as a resource in order to allow space for new ideas and new knowledge.”

Besides leadership, there are a few other areas that One Health defies current public health paradigms: funding and scaling. “Very few people actually want to fund One Health,” says Sobral. He recognizes that artificial boundaries are sometimes necessary to define the parameters of a proposal.

The OHI uses three programmatic themes to support dialogue with funders and others who may struggle to grasp the whole-systems approach: Foodscapes and Health, Urbanization and Health, and Environmental Change and Health.

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Scalability is another concept that One Health advocates must grapple with, given that funders are keen on replicating successful enterprises.

When faced with these questions, Dr. Sobral emphasizes effectiveness over efficiency. “Replication is something you want to do when you build a Model T. There is all the reason in the world to have extremely precise and replicable processes. We are not building cars though; we are working with the lives of people. Communities are unique, and it is quite a problem when you try to apply what you learned in one place to another place. If you do not deeply consider of the context where you are trying to apply a previously successful intervention, you could create many unintended consequences.”

Although it is not a new concept, One Health is certainly a departure from the normal way of doing business. According to Sobral, the priority is not to develop more technical expertise, but to draw together diverse stakeholders in new and productive collaborations.

There is a critical need for strong leadership to guide such teams. To be effective, these teams must operate within a structure that will allow them to implement programs and policies across sectors and jurisdictions.¹

This may necessitate changes in governance and infrastructure, and it will take time for institutions to develop the culture and processes to support such cross-disciplinary endeavors. The old is new again with One Health and the pendulum is swinging away from depth and specialization toward breadth, synthesis and integration or federation.

In the 2018-2019 editions of the Global Health Link newsletter, One Health will be used to frame various global health issues. Dr. Sobral’s overview of One Health principles sets the stage for further discussion on topics such as arboviral disease management, mental health, antibiotic drug resistance, and health promotion technologies. Future newsletters will refer back to the themes discussed here, including systems-thinking and scientific discourse.

1. Stephen C, Stemshorn B. Leadership, governance and partnerships are essential One Health competencies. One Health 2 (2016); 161-163.

♦ By Molly T Moss
Save the Date:

2018 Global Health & Disasters Course
September 24 - October 4, 2018

September 24 - 28  Global Health Course  |  October 1 - 4  Pediatrics in Disasters

This international health course is a two week training offered once a year as part of the University of Colorado School of Medicine Global Health Track. The first week of the course is the Global Health section and the second week of the course is the Pediatrics in Disasters section.

This course prepares its participants for international experiences and future global health work. The interactive training incorporates readings, lectures, small group problem based learning exercises, technical skill sessions, and a disaster simulation exercise.

Registration to open late spring!
Learn more.

October 5, 2018

Want to learn about projects that are currently taking place around the world?
Join us the morning of October 5th - all Students, Faculty, Staff, Community Members and Leaders with an interest in global health work are welcome to attend.
No registration.  Keep up to date on Call for Abstracts.

2018 Global Health Fair
October 5, 2018

Are you a student looking for a global health project and mentor?
Mark your calendar to join us from 2 to 4 p.m. on October 5th for the Global Health Project Fair and learn about the exciting global health opportunities currently available to CU students enrolled in a graduate program.

Global Health faculty from different CU schools will give overviews of projects and opportunities for student involvement for academic year 2018-2019. Faculty will be available to network and answer your questions. Learn more.
Dr. Chu adds, “When you have an emergency, it is really tough to respond if you don’t know your own health system.” While these challenges disproportionately affect impoverished regions, Dr. Chu reminds us that, “Even here in the US we aren’t that well prepared. We are of course better prepared compared to others, but we aren’t as prepared as we can be.

“For instance, even the recent food safety recalls of the romaine lettuce throughout the country show that there are unspecified threats to our food safety chain, so even we are at risk for these things.”

Although the efforts of the global community to prevent pandemics are strong, there is still significant risk of outbreaks that can go unchecked and become pandemics. Recent outbreaks of H1N1 flu, Zika, and Ebola are examples of pandemics that transcended national borders to have global impact.

GHL: “When these events do occur, what concerns you the most?
Dr. Chu: “There are different levels of what I would fear the most. I think it depends on your specific role,” says Chu.

For the decision makers the greatest concern is, “the communications part, sharing information between countries, having trust that the information you get is correct, so you can decide what resources to mobilize and stop the outbreak.

“On the epidemiology side, the greatest concern is getting there early enough and getting enough health support to track down all the cases and all of their contacts to make sure they aren’t spreading it further.

“On the clinical side, I need to get those patients in to the clinic, and I need to know what the risk is for my health workers who are treating the patients. I also need to know what I need to do to save the patients’ lives. Concerns for the public health official is to make sure all the pieces are working together to stop the outbreak.”

Dr. Chu expands, “The underlying piece of all of this is, you want to make sure your supply chain is good and make sure you have all of the resources available to you. If you run out of syringes, if you run out of gloves, if you run out of IV fluids, things can go downhill very quickly.

“And in tropical conditions where it is humid and a lot of what you buy is in paper boxes and they don’t have storage warehouses; these boxes sit outside and get wet and everything inside gets spoiled. So, you have to figure these things out. You can ship in all the goods you want but if you’re stockpiling resources and aren’t able to protect their integrity then you can have a lot of problems.”

Another challenge for health workers trying to contain an outbreak and prevent a pandemic? “The community itself” says Dr. Chu.

She shares that the community has to be a part of the effort and understand what is going on “because if you come in wearing these awful looking suits you take away their loved one and their loved one dies on your watch and they never see them again, that’s not good.”

There is a clear theme throughout the discussion of what is needed to both prepare for and respond to pandemics: communication. Although a highly interconnected world increases the risk of disease spreading rapidly from one place to another, a coordinated effort by that highly interconnected community is exactly what will help us identify and prevent the next pandemic.

GHL: Is there something you wish the general public knew more about all of these efforts that are constantly going on to protect people?
Dr. Chu: “It is all easily accessible; one can look to the CDC or WHO for all of this information, but with good public health control, no news is good news.”
Students Working Abroad

Scholarships administered via the Center for Global Health have provided 100+ University of Colorado health sciences graduate students with an opportunity to enjoy a culturally diverse global health experience. Check out the 2018 awardees!

Robinson Durst Scholarship

- **McKinzie Gales** (Colorado School of Public Health - MPH) - Evaluating facilitators and barriers to ART adherence and retention in HIV care among Kenyan women who experienced adverse pregnancy outcomes - Kisumu, Kenya
- **Ian Lawrence** (School of Medicine - MD) - Antenatal exposures and non-communicable disease (ANDES): Building research capacity to identify and treat causes of NCD - La Paz, Bolivia
- **Valerie Poole** (Colorado School of Public Health - MPH) - A study of risk factors for virologic failure in HIV-positive pregnant and postnatal women receiving antiretroviral therapy: A case-control study - Kisumu, Kenya
- **Jennifer Robinson** (School of Medicine - MD) - Optimizing viral load suppression in Kenyan children on antiretroviral therapy (Opt4Kids) - Kisumu, Kenya

Rotary Scholarship

- **Yaa Asare** (School of Medicine - MD) - Improving exclusive breastfeeding education at the Dhulikhel Hospital, a quality improvement project - Dhulikhel, Kavre District, Nepal
- **Alla Balabanova** (School of Medicine - MD) - Improving exclusive breastfeeding education at the Dhulikhel Hospital, a quality improvement project - Dhulikhel, Kavre District, Nepal
- **Yuli Chen** (Colorado School of Public Health - MPH) - The effect of cervical cancer screening on the incidence rate of invasive cervical cancer in HIV-positive women - Lusaka, Zambia
- **Sanju Garimella** (School of Medicine - MD) - World Health Organization’s Country Capacity Survey Analysis - Geneva Switzerland
- **Katie Guthmiller** (Colorado School of Public Health - MPH) - Internship with the WHO Working on Breastfeeding Projects - Geneva Switzerland
- **Matthew Masur** (School of Medicine - MD) - Improving exclusive breastfeeding education at the Dhulikhel Hospital, a quality improvement project - Dhulikhel, Kavre District, Nepal
- **Gabriela Reyes** (Colorado School of Public Health - MPH) - Water Cleanliness - Trifinio Region of Guatemala
- **Samantha Sharrar** (College of Engineering and Applied Science - BS) - Water Filter - Trifinio Region of Guatemala
- **Hillary Smith** (Colorado School of Public Health - MPH) - Development of a strategic action plan to promote HIV awareness and prevention in East Africa - Uganda
- **Amanda Tyler** (Colorado School of Public Health - MPH) - Uganda Village Project - Uganda, Africa
- **Margaret Webster** (Child Health Associate, Physician Assistant) - Improving exclusive breastfeeding education at the Dhulikhel Hospital, a quality improvement project - Dhulikhel, Kavre District, Nepal

Calvin L. Wilson Scholarship for Future Leaders in Global Health

- **Kira Elsbernd** (Colorado School of Public Health - MPH) - Health outcomes of HIV-exposed, uninfected infants - Kisumu, Kenya

Learn about the scholarships!
Here at the Center for Global Health at the Colorado School of Public Health, we have new, innovative, and exciting programs happening all the time. This past May, Cristina Del Hoyo, Guatemala Project Specialist conducted an art program based on art therapy, in Guatemala for children and teens in collaboration with Alejandra Paniagua, MD, MPH.

Alejandra is a Guatemalan physician and Public Health professional that works as an investigator and research coordinator at the Center for Human Development at our project site in Guatemala and believes art should be a part of everyone’s life.

Cristina holds a Bachelor of Arts in Fine Arts from the University of Granada, Spain, and uses art therapy daily in her own life.

She describes art therapy as a healing process for her. She states, “I understand how it [art therapy] works, it is a healing process for me. It helped me learn so much about myself and how to deal with problems. Expressing yourself is a very important part of being human.”

Cristina is very excited to use her degree as part of the work she has been doing for the Trifinio project site in Guatemala.

For 6 years, Cristina worked with immigrants and refugees in the city of Denver and developed this art program based on art therapy. She told us, “I never actually got around to using it though, in part because I didn’t have the support, or the funding.” Well, here at the Center for Global Health, she’s got the support.

When Edwin Asturias, MD, Director of Latin American Projects at the Center for Global Health heard about Cristina’s art program, he thought it would be beneficial, and culturally appropriate for this community in Guatemala. They got started on the planning right away.

All of the funds for the art supplies and food for the children came from Cristina’s own fundraising through a GoFundMe campaign. She has already started a new campaign for the 2019 second round of the art program “Paint Your Life” in Guatemala.

This program was organized for boys and girls from the local community aged 9-11 years old, five days a week in the afternoon and for teenagers aged 16-19 who are part of a Youth Leadership program three days a week.

The Youth Leadership program coordinator, Nimsy Ramos, was just one of the ten volunteers that made all of this happen. They decided children under the age of 9 wouldn’t be able to grasp the full intention of the program. Since this was a pilot program, Cristina was excited to see how the activities affected children in different age groups.

Cristina is also excited that even though she has left, the students can use the techniques they learned to draw and paint and express themselves in creative ways.

The area in which this program is taking place faces extreme poverty, many health issues including mental health issues. She explains, “I hope that long after the program is over, these students can find a safe refuge in their art and their creative expression. That when they are going through hardships, they can turn to their art to get something off their chest, express it on paper, or use it as an outlet to make themselves feel better.”

Cristina worked hard to make this a fun and exciting environment for the children and give them the opportunity to play with their creativity. Most of these students would never have the opportunity to take an art class like this or have access to art supplies. Cristina provided a space where these children can experience the world through a different lens.

Cristina shared, “It is so important to me to have a connection with these kids. If I see just one or two kids develop a passion for art like I did, I will feel as though I’ve done my job.”

(Cristina Del Hoyo, Guatemala Project Specialist, Center for Global Health at the Colorado School of Public Health)

Another important aspect of this program for Cristina is the long-term effects and relationships that will come of it. She is excited to send pictures of the children and their artwork to all the donors who contributed to the program. In addition, all the art supplies will stay at the Trifinio project site for future art programs so the children can continue to enjoy them.
Transfusion of blood and blood products helps save millions of lives every year. It can help patients suffering from life-threatening conditions live longer and with a higher quality of life, and supports complex medical and surgical procedures. It also has an essential, life-saving role in maternal and child care and during the emergency response to man-made and natural disasters.

A blood service that gives patients access to safe blood and blood products in sufficient quantity is a key component of an effective health system. An adequate supply can only be ensured through regular donations by voluntary, unpaid blood donors. However, in many countries, blood services face the challenge of making sufficient blood available, while also ensuring its quality and safety.
Upon Cristina’s return, she lit up with excitement when talking about the trip. She started by showing the work the children made during the program. These pieces now reside on the walls in Cristina’s office, where she is reminded of this life changing experience.

Cristina shared that she learned more about herself on this trip than she expected. She feels incredibly grateful to have participated in this event and feels like she has a deeper understanding of the work she does for the Center for Global Health. She explains, “It was so different to be there, and see the clinic and the people with my own eyes. I was lacking this dimension before, now I feel I have the first-hand experience to do my job to the best of my ability.”

Cristina’s learning didn’t stop there though. She tells me she was shocked by how much she learned from the children themselves. She was so impressed by their stories of home, and how they showed up every day, with a smile on their face, ready to learn and explore. Cristina describes this group of children as, “resilient.”

At first, the children could not believe they were allowed to use all the supplies in front of them, they were very hesitant to use much of anything, but as the week continued, the children could not put their paint brushes down.

The more involved the children became, the more Cristina could tell the children were enjoying themselves tremendously. They were so engaged. She was happy to see the students using supplies and learning about art. They never would have had access to these resources without the program.

Cristina could see the art program opening up the student’s curiosity, and she wanted to teach the children that art is a very individualized and unique process, to express yourself, and to pay no attention to your neighbor. At the beginning of the week, the students work was constrained, and all looked very similar, but by the end of the week, the products were all so different, with many different textures, and colors the children mixed themselves.

Cristina is excited to share that so many age groups can benefit from this program. She got to see the younger kids open up to their creativity, and truly express themselves, and she observed the teenagers dive deeper and visualize their goals for the future, something many of them never truly do.

Cristina described this program as a true success, and beneficial not just for the students targeted, but for herself, for the volunteers and for the community overall. She is excited to hold the program again and think of ways to make it even more beneficial for more people in the near future.

♦ By Roxanna Ohlsen

Want to learn how you can become a part of the 2019 “Paint Your Life” art therapy program?

Keep up with the latest news: click here.

Donate: click here
Karen Hampanda, PhD, MPH, Investigator at the Center for Global Health has been awarded the National Institutes of Health Pathway to Independence Award (~$166,000 for the first 2 yrs - K99 phase). This program is designed to facilitate a timely transition of outstanding postdoctoral researchers from mentored, postdoctoral research positions to independent, tenure-track or equivalent faculty positions. The program will provide independent NIH research support during this transition in order to help awardees to launch competitive, independent research careers.

Prevention of mother-to-child transmission (PMTCT) programs are a unique opportunity to make substantial gains towards ending the global AIDS epidemic, but require sustained adherence and retention of mother-baby pairs.

The aim of this study is to develop and test a couples counseling intervention focused on relationship dynamics for HIV-positive pregnant women and their male partners in Zambia to promote service utilization and PMTCT outcomes, and ascertain underlying mechanisms. The intervention has the potential to significantly reduce the burden of disease among families affected by HIV.

Findings from this study will provide evidence of the preliminary efficacy of the couples counseling intervention to promote PMTCT adherence and retention, which will be used to develop a larger multi-site trial with longer-term HIV outcomes. The award also funds career development activities that facilitate Dr. Hampanda’s transition to becoming an independent behavioral HIV investigator capable of leading intervention trials in resource limited settings.

Gretchen J Domek, MD, MPhil, Senior Investigator at the Center for Global Health and Assistant Professor of Pediatrics, School of Medicine, University of Colorado Anschutz Medical Campus, has been awarded the Frankenberg-Camp Projects Program Early Career Award ($15,000) and Colorado Clinical and Translational Sciences Institute (CCTSI) Child and Maternal Health Pilar Program Junior Faculty Award ($20,000). Learn more about the work she will be doing below.

Prenatal development combined with the first three years of a child’s life constitute the most critical and rapid period for human brain growth. Low-income and minority children often face a developmental disadvantage early in life that can lead to lasting impairments and disparities in learning, behavior, and health.

While research has shown that increasing children’s exposure to talking, reading, and playing can improve developmental outcomes, few low-cost, high-reach, and evidence-based interventions exist, especially starting in early infancy. Pediatric primary care practices provide an important venue for embedding such a wide-reaching intervention. Pediatricians should have tools and resources to initiate conversations during their visits that empower parents to support child development.

This pilot study uses an experimentally staged introduction with 150 caregivers and aims to assess a low-cost, primary care-based intervention promoting language development in infancy. The intervention uses finger puppets with 2- to 12-month-old infants to increase parental behaviors supporting language and social development. The specific aims include assessing the feasibility, acceptability, and effectiveness of the intervention, including outcome measures for parental satisfaction, the cognitive home environment, and children’s language development. Developing, implementing, and disseminating a low-cost, easy to implement, and high-reach primary care intervention promoting early infancy cognitive stimulation would both be novel and have significant and timely implications towards improving early childhood language development and school readiness, particularly in at risk populations.
What is all the buzz about?

Want to watch a lecture you missed? Click here.

Fall 2018 schedule to be released late summer.