

2024 BOWEN CENTER ANNUAL REPORT

# MULTIPLYING IMPACT



INFORMING HEALTH WORKFORCE POLICY IN INDIANA  
AND BEYOND THROUGH FOCUSED DATA AND RESEARCH



**BOWEN CENTER**  
FOR HEALTH WORKFORCE RESEARCH AND POLICY



**INDIANA UNIVERSITY**  
SCHOOL OF MEDICINE



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# WELCOME

## MESSAGE FROM THE BOWEN DIRECTOR

I am delighted to share the annual impact report of the Bowen Center for Health Workforce Research and Policy (Bowen Center) for 2024. We have had a banner year with the production of many key resources and impactful projects. This includes several special reports for the Indiana Department of Health; the creation of a playbook presenting research and consensus recommendations for Indiana’s mental and behavioral health workforce with Lilly Endowment, Inc. support; and the wrap-up of a three-year project focused on the direct care workforce with the Indiana Family and Social Services Administration.

The Bowen Center’s mission is to inform policy that supports the health and well-being of Hoosiers and beyond. In 2025, we want to make sure that our data and policy analyses are activated by elevating them into policy and planning conversations. We recently launched new dissemination approaches, including rethinking our email strategy, renewing our focus on blogs, and increasing our commitment to social media. Our stakeholders are already seeing these changes. This year, we will be even more intentional and formalize our communication strategy so that our resources get to those who need them.

We ensure that the Bowen Center is seen as an institutional resource for schools and degree programs preparing students for the health care workforce. We are intentional about seeking partnerships, collaborations, and engagement opportunities across the institution. The Bowen Center exemplifies service to the state by ensuring data are available for objective decision-making related to the health workforce. We want to make sure that information is also available institutionally to support evaluation and inform initiatives to help “Bring on Tomorrow’s” health workforce.

I’m so proud of the work we did in 2024, and I’m looking forward to an even more impactful 2025. Thank you so much for your interest and support.



**Dr. Hannah Maxey**  
PHD, MPH, RDH  
Director and Associate  
Professor of Family Medicine

A handwritten signature in blue ink that reads "Hannah L. Maxey".

# ABOUT US

## WORK WITH US BOWEN EXPERTISE



*Policy and program evaluation*



*Data collection, management, and reporting*



*Conduct needs assessment*



*Policy research and analysis*



*Draft policy research*



*Policy strategy and design*



*Health workforce research*



**BOWEN CENTER**

FOR HEALTH WORKFORCE RESEARCH AND POLICY





**OUR NAMESAKE**

# HONORING OUR PAST

The Bowen Center for Health Workforce Research and Policy is named in honor of late Indiana Governor, **Otis R. Bowen**, M.D., a committed family medicine physician and public servant. Housed within the Indiana University School of Medicine’s Department of Family Medicine, the Center was originally established as the Bowen Research Center in the 1990s and focused on Family Medicine Education research. It was renamed to the Bowen Center for Health Workforce Research and Policy in 2015 to acknowledge a focus and expertise in health workforce policy research. Our name and the work we do honor Dr. Bowen’s commitments and contributions both as a physician and government leader.



**OUR WORK**

# WHAT WE DO

The Bowen Center is nationally recognized for its expertise in state and national level health workforce policy research. Through collaborations with state and federal agencies, nonprofit organizations, academic partners, health professionals, employers, and community advocates, the Bowen Center contributes to analyzing complex health workforce issues and informing related policy and programming. The Center provides expert technical assistance to the State of Indiana on health workforce related matters, including planning.

**OUR CORE VALUES**

# WHAT DRIVES US FORWARD

**OUR MISSION**

To inform health workforce policy that advances health through translational research, committed service, and collaborative leadership.

**OUR VISION**

Inform policy.  
Align initiatives.  
Advance health.

**OUR VALUES**

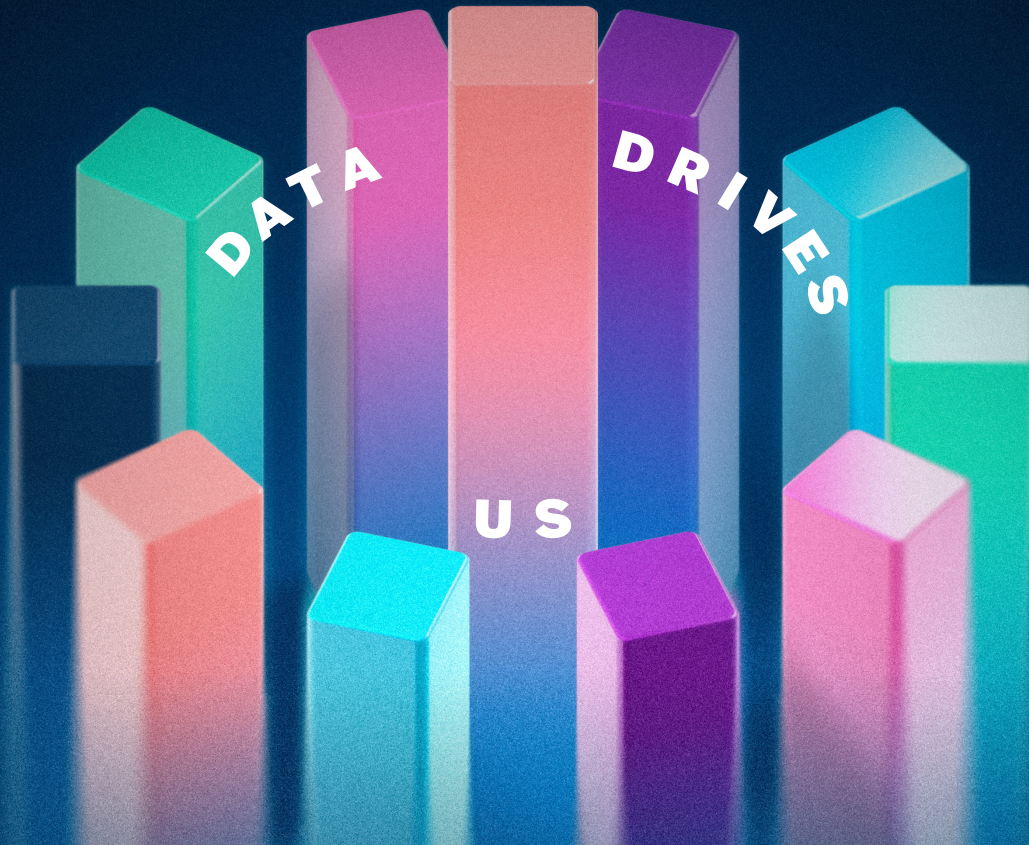
Integrity  
Stewardship  
Engagement

**OUR COMMITMENT**

Excellence  
Transparency  
Collaboration







## EXECUTIVE SUMMARY

**S**INCE 2015, the Bowen Center has partnered with the Indiana Professional Licensing Agency to collect, manage, and analyze data on licensed health professionals through online license renewals. In 2024, the Bowen Center helped inform public policy by using this data to publish reports on workforce trends for behavioral health professionals, psychologists, pharmacists, and physician assistants.

Key initiatives during the year included the policy research and workforce data analyses to support Indiana's direct care workforce planning and a comprehensive evaluation of the state's emergency medical services workforce. The Bowen Center also collaborated with PEW Charitable Trusts on studies related to workforce needs for substance use disorder and suicide prevention.

Additionally, the Bowen Center led the creation of the [Playbook for Enhancing Indiana's Mental and Behavioral Health Workforce](#), offering actionable recommendations to improve education, training, and practice environments for behavioral and mental health professionals.

In partnership with the Indiana Health Workforce Council, the Bowen Center began working to improve recruitment, training, and retention strategies for Indiana's health care workforce. This work will continue in 2025.

The year also saw the Bowen Center produce more than 60 reports, make over 20 state-level presentations, provide technical assistance to six requestors, and much more.

In the 2023-2024 fiscal year, the Bowen Center received \$1,395,931 in funding.

This report provides further details on the vital work accomplished in 2024.

# OUR WORK

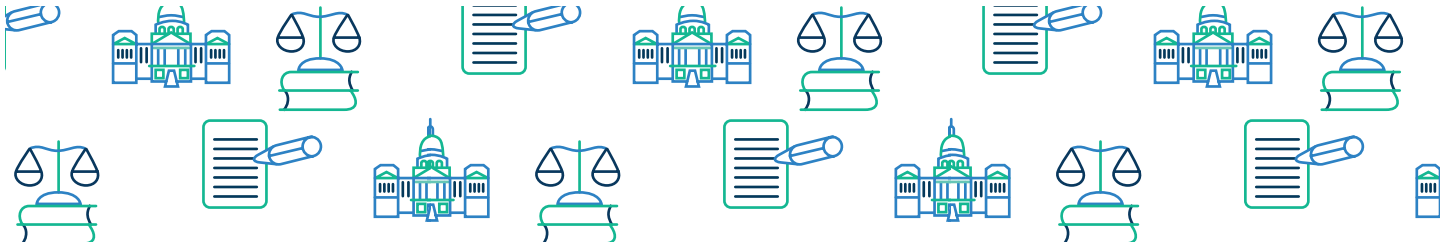


## DATA

**S**TARTING in 2015, the Bowen Center has partnered with the Indiana Professional Licensing Agency in regular administration of supplemental questions during online license renewal to collect and manage data on Indiana’s licensed health professionals. These supplemental data points include demographics, education and training, practice location, practice characteristics, services provided, and populations served.

During 2024, the Bowen Center published numerous reports for health professionals who renewed their licenses during the 2022 and 2023 license renewal years. These professions include behavioral health professionals, psychologists, pharmacists, and physician assistants. Additionally, the Bowen Center completed the special issue series which explored the trends in demographic characteristics of many licensed health care professionals, titled a Longitudinal Examination of Diversity in Indiana’s Health Workforce.

With the start of a new round of biennial license renewals, the Bowen Center has been working on the management and storage of updated license and supplemental survey data and is looking forward to a revitalized reporting strategy that will soon be published.



## POLICY

**U**SING health workforce information to inform policy and programming is central to the work of the Bowen Center. Health workforce data coordination and policy research is the primary mechanism by which the Bowen Center contributes to informing policy initiatives. Much of this work is accomplished in partnership with the State of Indiana.

Alignment of health workforce-related initiatives is critical to advancing effective policy solutions. The Bowen Center contributes to the alignment of health workforce initiatives by providing and/or supporting forums for collaboration, learning, and information sharing.

In 2024, the Bowen Center published policy briefs covering behavioral health professionals, psychologists, pharmacists, and physician assistants who renewed their licenses during 2022 and 2023. These policy briefs highlighted workforce trends, including the makeup of the workforce in terms of race, sex, age, and education.



# KEY PROJECTS

## INDIANA'S DIRECT CARE WORKFORCE

From 2021-2024, the Bowen Center contributed to the development of an Indiana Family and Social Services Administration (FSSA) plan to reform the FSSA's long-term services and support system, focusing on home and community-based services. The initiative addressed critical workforce challenges, particularly among direct service workers (DSWs) who provide hands-on care to elderly and disabled individuals. The Bowen Center helped the FSSA through research into workforce data, training, and associated policies for this workforce. The final activity in this collaborative effort is the development of an interactive Tableau dashboard for certified nurse aides, home health aides, and qualified medication aides and an updated county-level workforce needs assessment.



[\[CHECK OUT OUR DEDICATED PROJECT PAGE HERE\]](#)

## INDIANA EMERGENCY MEDICAL SERVICES (EMS) WORKFORCE

In 2023, the Bowen Center partnered with the Indiana Department of Homeland Security and the Indiana Department of Health to conduct an evaluation of Indiana's EMS workforce. Indiana's EMS workforce is critical to the state's infrastructure. EMTs and paramedics face challenges such as low wages, high turnover, and high physical stress. All these factors result in ongoing staffing shortages. Although widely known in Indiana, the state has been unable to confidently quantify the problem at a granular level. In 2024, Bowen continued its partnership to provide technical support for state-level EMS workforce reporting by managing data and ongoing workforce reporting and evaluation.



**2023 INDIANA EMS  
WORKFORCE ASSESSMENT**

[\[CHECK OUT OUR DEDICATED EMS WORKFORCE PAGE HERE\]](#)

## PEW CHARITABLE TRUSTS: SUBSTANCE USE DISORDER AND SUICIDE CARE AND PREVENTION WORKFORCE LITERATURE REVIEW AND MANUSCRIPT DEVELOPMENT

From 2023-2024, the Bowen Center partnered with PEW Charitable Trusts on a project focused on the public health need to understand the literature related to three topics:

1. Substance use disorder (SUD) workforce diversity, cultural competence, and quality of care,
2. School-based SUD services for youth and the workforce that provides these services, and
3. The suicide care and prevention workforce.

Systematic literature reviews were performed using MeSH and general term searches in the National Institutes of Health database and Google Scholar. Related articles were reviewed for retention in the study based on relevant criteria. The retained articles were analyzed and summarized as findings. The first two topics resulted in manuscripts that are currently under review for publication. The third topic is a work in progress continuing through 2025.





Bowen Center staff members pose for a photo during the Playbook Draft event on April 23, 2024 at Lucas Oil Stadium.

**PLAYBOOK FOR ENHANCING INDIANA’S MENTAL AND BEHAVIORAL HEALTH WORKFORCE**

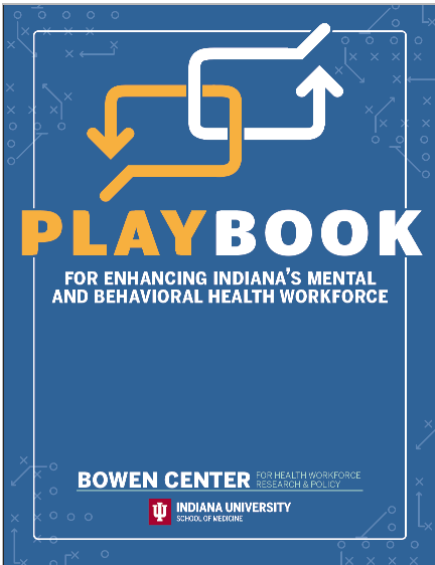
From 2023 to 2024, the Bowen Center led the development of the Playbook for Enhancing Indiana’s Mental and Behavioral Health Workforce. Sponsored by Lilly Endowment Inc., the Playbook includes recommendations focused on strengthening the education and practice environment for professionals dedicated to mental and behavioral health services. These solutions were developed through extensive state-wide stakeholder engagement as well as surveys, focus groups, and key informant interviews. The recommendations are spread across several categories including 1) secure the pipeline, 2) strengthen clinical training, 3) align education, policy and practice, and 4) assess school-based behavioral health.

[\[CHECK OUT THE DEDICATED PLAYBOOK PROJECT WEBPAGE HERE\]](#)

**INDIANA HEALTH WORKFORCE COUNCIL**

In 2024, the Bowen Center partnered with the Indiana Department of Health and Indiana Family and Social Services Administration to create and lead a data driven framework for strengthening the workforce capacity of Indiana. The Bowen Center provided research and data support. The Council will use data to inform policy decisions to expand recruitment, training, and retention of the health care workforce in Indiana. The Council aims to leverage existing initiatives and align future policy and planning for Indiana’s health workforce. The Bowen Center will continue its partnership with the Health Workforce Council into 2025.

[\[CHECK OUT OUR DEDICATED HEALTH WORKFORCE COUNCIL PAGE HERE\]](#)



# OUR IMPACT

## HEALTH WORKFORCE DASHBOARDS

Three health workforce data dashboards are up and running, with more on the way:



**INDIANA'S  
PHYSICIAN  
WORKFORCE**

[ [DIVE INTO THE  
DATA HERE](#) ]



**INDIANA'S  
BEHAVIORAL HEALTH  
WORKFORCE**

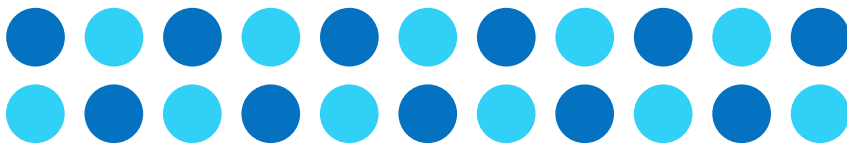
[ [DIVE INTO THE  
DATA HERE](#) ]



**INDIANA'S  
REGISTERED NURSE  
WORKFORCE**

[ [DIVE INTO THE  
DATA HERE](#) ]

## PRESENTATIONS



**22**

○ = ONE PRESENTATION  
**PRESENTATIONS  
GIVEN IN 2024**

## SCHOLARLY ARTICLES

### **EDUCATION FOR INTEGRATION: DENTAL HYGIENE STUDENT AND FAMILY MEDICINE RESIDENTS**

*The integration of oral health and primary care offers promising solutions to overcome barriers hindering patient access to oral health care.*

<https://pubmed.ncbi.nlm.nih.gov/38876792/>

### **EXPLORING THE DEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS OF PHYSICIANS AND NURSE PRACTITIONERS ASSOCIATED WITH PROVIDING MEDICATION-ASSISTED TREATMENT: A RETROSPECTIVE OBSERVATIONAL STUDY**

*The purpose of this feasibility study was to examine the perspective of families, learners, faculty, and administrators who engaged in an interprofessional training experience for family medicine residents and dental hygiene students.*

<https://pubmed.ncbi.nlm.nih.gov/38528773/>







## MEDIA

- **Indiana Public Radio/IPB News:** [Rural Indiana needs health workers. Council considers tax credit for providers who act as mentors](#)
- **WFYI:** [All Indiana counties have a mental health workforce shortage. A new report provides solutions](#)
- **Inside Indiana Business:** [IU unveils playbook to address mental health workforce shortage](#)
- **Fort Wayne Journal-Gazette:** [New report details shortage of mental health professionals in Indiana](#)
- **Indiana Public Media:** [State officials aim to tackle shortage of EMTs and paramedics through training grants](#)

## DATA REQUESTS

- Marian University College of Osteopathic Medicine
- Indiana University
- Indiana Family and Social Services Administration
- Indiana Public Broadcasting
- Indiana Licensed Psychologist
- Indiana Business Health Collaborative



# WEBSITE AND SOCIAL MEDIA

## WEBSITE

# 20,677

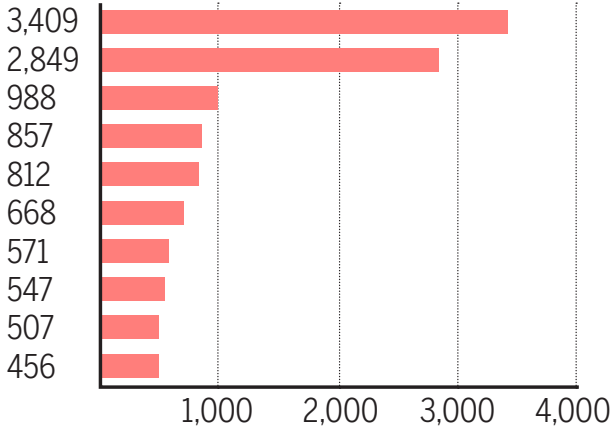
VISITS TO OUR WEBSITE,  
[WWW.BOWENPORTAL.ORG](http://WWW.BOWENPORTAL.ORG)

# 53.4%

**ENGAGEMENT RATE**  
50-70% is considered healthy for most websites

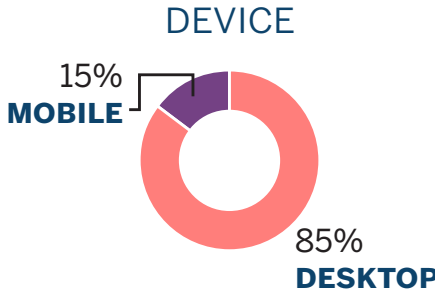
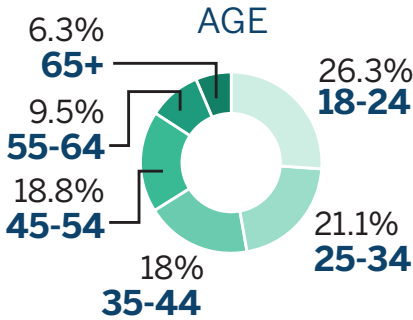
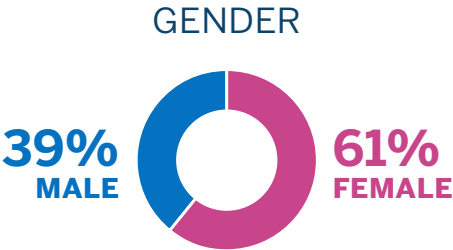
### TOP TEN WEBPAGES BY NUMBER OF VISITS IN 2024

- [1. bowenportal.org/](http://bowenportal.org/)
- [2. bowenportal.org/playbook/](http://bowenportal.org/playbook/)
- [3. bowenportal.org/library/](http://bowenportal.org/library/)
- [4. bowenportal.org/indiana-physician-workforce/](http://bowenportal.org/indiana-physician-workforce/)
- [5. bowenportal.org/portfolio/the-playbook/training-and-trends/](http://bowenportal.org/portfolio/the-playbook/training-and-trends/)
- [6. bowenportal.org/about-us/our-team/](http://bowenportal.org/about-us/our-team/)
- [7. bowenportal.org/about-us/about-the-bowen-center-3/](http://bowenportal.org/about-us/about-the-bowen-center-3/)
- [8. bowenportal.org/portfolio/the-playbook/needs-assessment/](http://bowenportal.org/portfolio/the-playbook/needs-assessment/)
- [9. bowenportal.org/indiana-bhhs-workforce/](http://bowenportal.org/indiana-bhhs-workforce/)
- [10. bowenportal.org/workforce-dashboards/](http://bowenportal.org/workforce-dashboards/)



### WEBSITE USER PROFILE ESTIMATES FOR 2024

Our median website user is female, around age 35, and visits our website on a desktop computer.



### SOCIAL MEDIA (LINKEDIN)

# +2,781%

INCREASE IN **AVERAGE MONTHLY SOCIAL MEDIA IMPRESSIONS** COMPARED TO THE FIRST HALF OF 2024

# 21.9%

**ENGAGEMENT RATE**  
1-3% is considered healthy for most large social media accounts

Our organic social media engagement increased **5,600%** in the second half of 2024.



# OUR FUNDING

**\$819,809**  
PUBLIC SOURCES

**\$498,598**  
PRIVATE SOURCES

IU SCHOOL OF MEDICINE **\$77,524**

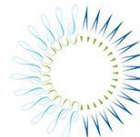
## OUR SPONSORS



**Indiana  
Department  
of  
Health**



**Lilly Endowment Inc.**  
A private foundation since 1937



THE  
**PEW**  
CHARITABLE TRUSTS



# OUR REACH

## PARTNER SPOTLIGHT



*“Members of the Indiana Mental Health Roundtable have been proud to learn from, provide input on, and disseminate insights from the Playbook Project. We are grateful to the Bowen Center for leading this work and equipping Indiana to improve its mental health system by building a more resistant and sustainable health workforce.”*

**SUZANNE CROUCH**  
52<sup>ND</sup> LT. GOVERNOR OF INDIANA  
Founder, Indiana Mental Health Roundtable

*“Since 2018, the Indiana Professional Licensing Agency’s (PLA) collaboration with the Bowen Center has been a critical pillar in advancing the state of Indiana’s health workforce data strategies and health workforce regulatory policy. Thanks to the Bowen team’s work and efforts, primary source data that is cyclically collected and maintained by PLA has now been transformed into some of the most reliable, evidence-based health workforce resources accessible to Indiana’s educators, researchers, leaders, policymakers, and the general public. The Bowen Center’s resources now provide users accurate representations of the state of Indiana’s health workforces, as well as trends within the workforces and access to care across our state. These resources, in turn, are advancing informed initiatives and policy development aimed at promoting workforce development as well as mitigating and preventing adverse health workforce and public health outcomes.*

*PLA’s collaboration with the Bowen Center has now come full circle, as PLA now utilizes the Bowen Center’s resources to advance our own conversations with industry leaders and policymakers concerning the regulatory landscape of professional licensure and practice within our state’s health care industries. Indiana has also become a national leader in health workforce data collection and analysis, thanks to the Bowen Center’s collaborative initiatives, and many states are now eager to follow Indiana’s example in implementing similar initiatives within their own respective jurisdictions.*

*PLA looks forward to our continued partnership and collaboration with the Bowen Center, as health workforce data collection expands to even more health professions in the future.”*



**LINDSAY HYER**  
EXECUTIVE DIRECTOR  
Indiana Professional  
Licensing Agency



# BOWEN CENTER

FOR HEALTH WORKFORCE RESEARCH AND POLICY

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**INDIANA UNIVERSITY**  
SCHOOL OF MEDICINE



FOR MORE INFORMATION:

**[bowenportal.org](https://bowenportal.org)**

[bowenctr@iu.edu](mailto:bowenctr@iu.edu) ■ [@IUBowenCtr](https://twitter.com/IUBowenCtr)