

PERSPECTIVES ON PUBLIC ENGAGEMENT WITH SCIENCE IN INDIA

A Survey of India Alliance Grantees

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India Alliance

Authors

Sarah Iqbal (PhD)* and Banya Kar (PhD), Communications and Public Engagement Team, DBT/Wellcome Trust India Alliance

Report design

Prachi Grover and Santosh Bastiya, DBT/Wellcome Trust India Alliance

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Perspectives on Public Engagement with Science in India: A Survey of India Alliance Grantees

*This author no longer works at India Alliance and can be contacted via the office.



IndiaAlliance

TABLE OF CONTENTS

Summary	1
Introduction	2
Survey findings 1. Understanding of and participation in public engagement 2. Enablers, challenges, and barriers to public engagement for researchers 3. Training and capacity-building in public engagement	5 16 25
Conclusions	28
Recommendations 1. Training and building capacity for public engagement 2. Incentivise public engagement	29 32
3. Building a culture of public engagement	34

SUMMARY

- India Alliance surveyed its 243 research grantees in November 2020 requesting their views on public engagement with research in India.
- The online survey had a response rate of 56%. The survey respondents represent basic biomedical, clinical, and public health researchers based in India.
- India Alliance grantees who responded to the survey demonstrate a clear interest and motivation for public engagement. 53% of the respondents said they would like to spend more time engaging with the public.
- 52% of the survey respondents 'strongly agreed' while 35% 'agreed' that engaging with the public on matters of science and health is a responsibility of researchers.
- 86% of the respondents believe that the public's understanding of science and health issues in India is low.
- While 89% of the respondents indicated that their institutions were supportive of public engagement activities, 80% of the respondents indicated the absence of any formal training opportunities in public engagement at their host institution.
- Too many competing pressures on time, 'lack of training in engaging with the public' and 'insufficient specialist staff at the institution to support public engagement' (in that order) emerged as the top three challenges for respondents to take up public engagement activities.
- The respondents highlighted the following as the top three areas they would like to receive training in: how to organise/run a public engagement activity, engagement with schools/children/young people, and engagement with policy.
- The survey respondents highlighted some key areas that could be improved to enable researcher's
 engagement with the public: communicating the importance of public engagement among the
 research community, recognition for researcher's public engagement work through formal
 organizational or research funding structures and institutionalization of public engagement support
 through training, funding and dedicated staff and training.

INTRODUCTION

It is being increasingly observed and accepted that advancements in science and technology towards improving human health and planetary well-being can be made more sustainable and equitable through building mutual understanding and collaboration between scientists and the public (defined here as non-expert audience including policymakers, research participants, and lay audience). For this reason, science along with citizen engagement is considered as an important mechanism for achieving Sustainable Development Goals (SDG 2030) of the United Nations, which are 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all".

The <u>Science Social Responsibility (SSR)</u> policy of the Department of Science and Technology (DST), Government of India, also underscores the importance of engaging with diverse stakeholders to maximise the impact of science on society. The consultations as part of the <u>Science and Technology Innovation Policy (STIP 2020) draft</u> of the Government of India laid special emphasis on involving the public in formulating STIP 2020 to make the policy-making process "decentralized, bottoms-up, and inclusive" and reflective of public's expectations from science and technology. The COVID-19 pandemic has also underscored the importance for the scientific community, who generate and receive new scientific knowledge, to be better prepared to contribute towards risk communication and public engagement. During such health crises, alleviation of public anxiety, research uptake, and prompt evidence-based actions would rely significantly on the engagement of experts with policymakers, media, and the public at large.

Public engagement with science includes intentional, open, and bidirectional interactions that give scientists and the public opportunities for mutual learning—through sharing and acquisition of knowledge while appreciating different perspectives and contexts. Awareness about the cultural relevance of science and the importance of multiple perspectives in scientific processes is critical to effective public engagement initiatives. While Public Engagement activities can be multifarious—science outreach, research uptake, citizen science, patient-involvement, participatory action research, participatory arts, policy advocacy, community engagement and so on—their main objective remains the same and that is to bring science and society closer together for their mutual benefit and towards achieving a common goal. It is about designing opportunities for the public and scientists to together explore the meaning and implications of research and shape research agenda. Therefore, a critical objective of public engagement would be to align intent of science with aspirations of the public and vice versa. Needless to say, engaging with the public is of strategic importance for funding and research organisations to ensure that their research and innovation are trustworthy and valued by their stakeholders and the public at large.

DBT/Wellcome Trust India Alliance's (India Alliance) core mandate, as a science funding public charity in India, is to invest in transformative ideas and supportive research ecosystems to advance discovery and innovation to improve health and well-being. This includes making the process and outputs of science accessible to everyone to enable and strengthen connections between science and society. In line with this mission, India Alliance provides <u>funding</u> and anchors various public engagement <u>programmes</u> that bring the scientific community and the public together to share, deliberate and collaborate on important matters of science, especially human health, which have implications for the society and the planet at large.







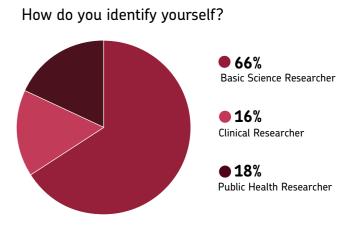
Over the years, India Alliance has also been conducting workshops to enable scientists to become effective communicators when writing for or speaking to their peers or the public. These workshops also help scientists appreciate the value and benefits of engaging with non-scientific audiences. In recent times, the Indian research ecosystem has seen an upward trend in scientists showing interest in communicating their science to non-scientific audiences; however, the number of science communication or public engagement projects undertaken formally by scientists remains low in the country. There could be many contributing factors for this trend. To explore some of these factors and to be able to better support its grantees' public engagement activities, India Alliance conducted an online survey in November–December 2020. The aim of the survey is to build a robust evidence set, which accurately reflects the views and needs of researchers funded by India Alliance and informs its approach to public engagement with research.

Therefore, this survey aimed to:

- 1. assess understanding of, participation in, and attitude of India Alliance Fellows/Grantees towards public engagement with research
- 2. identify the enablers, challenges, and barriers to public engagement for India Alliance Fellows/Grantees
- 3. understand the specific needs (training/capacity-building, funding, etc.) and develop recommendations for India Alliance as well as for the Indian scientific ecosystem.

The survey was shared with 243 India Alliance research grantees' (fellowships and grants) out of which 137 (male -78; female -59) responded to the survey. Of these, 90 respondents are basic science researchers, 22 are clinical researchers, and 25 are public health researchers. Furthermore, 58% of the respondents are based at research institutions, 18% at higher education institutions, and 17% at central, state, and private universities; these organisations geographically represent around 30 cities of India.

This survey focused on understanding the needs of India Alliance grantees, who represent basic biomedical, clinical, and public health researchers of the Indian research ecosystem. In the future, this study can be expanded to include voices of researchers from diverse fields, public and community engagement practitioners, and funders to inform and develop thinking and practice around public engagement with science in the country.



Note: The survey is modelled after the <u>survey</u> run by Wellcome in 2016 that gathered views of international public and community engagement with research, including India Alliance grantees, across Africa and India.

SURVEY FINDINGS

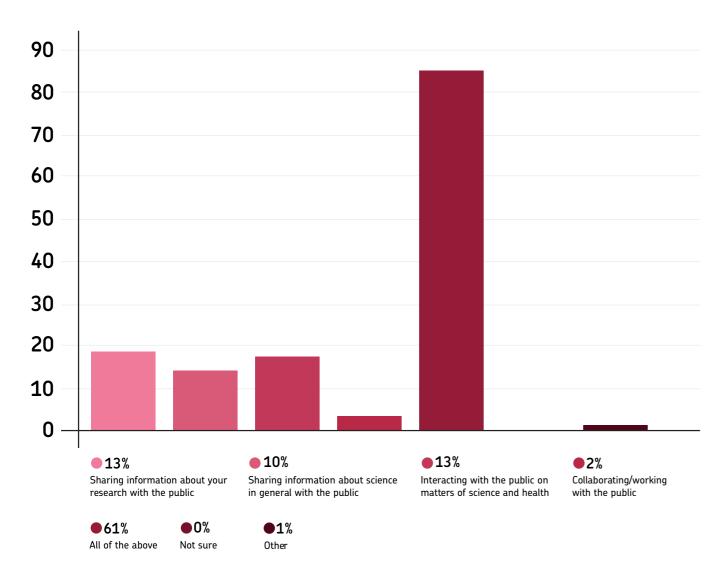
An electronic survey was sent out to 243 India Alliance Grantees to gauge their awareness and opinions of activities related to, and enablers and barriers to public engagement (please see Appendix 1 for the full survey). This report is a compendium of the responses, opinions, and experiences of the respondents.

1. Understanding of and participation in public engagement

a) Understanding of public engagement

More than half (61%) of the respondents said public engagement to them meant sharing information about their research with the public, interacting and collaborating/working with them on matters of science and health.

What does public engagement mean to you?







Some respondents elaborated their understanding about public engagement as follows:

For me public engagement is to collaborate and/or associate/partner with communities that are affected by the research and/or its findings. This involves more than being passive recipients of information. It involves a close engagement in research production and steering itself."

Communicating my excitement of how science goes about. Narrating the stories of scientific discoveries."

Creating a dialogue with the public to make them understand ways of science and in turn understand their expectations."

Public engagement to me means not only interacting with public with matters of health, but also collaborating with them and understanding their needs and prioritizing research based on the community necessity. Every community is empowered enough to voice out their concerns if listened to, public health research should prioritize the concern of lay people, and as public health researcher, the best way to engage is to orient our research to provide solution these concerns within the research interest/experience/capacity."

The questions that we seek to answer in our institutes/labs should arise in the field i.e., out of an extensive interaction, understanding, assimilation and conceptualization of a problem that is pertinent to the public, be it a public health problem or otherwise."

Science and Society are dependent on each other. Science drives society and society drives science. So, the communication between them is indispensable."

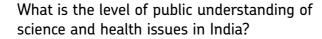
I think public engagement is one of the great ways to take the science amongst the public. This also helps the researchers to express their research in simple language and take it beyond the scientific community and share the knowledge."

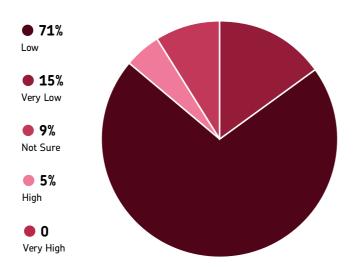


b) Perceptions on public's interest and understanding of science

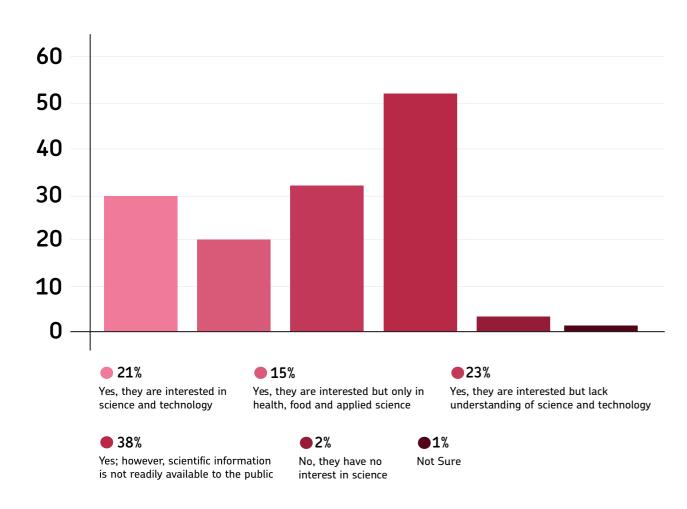
Majority (97%) of the respondents believe that the public in India is interested in learning more about science. Out of these, 38% of the respondents feel that while the public is interested, scientific information is not readily available to them, 23% believe that the public is interested but lacks understanding of science and technology and 15% indicated that the public is only interested in health, food, and applied sciences.

86% of the respondents believe that the public's understanding of science and health issues in India is low while 5% felt it was high and 9% were not sure.





Do you consider that people in India are interested in knowing more about science?



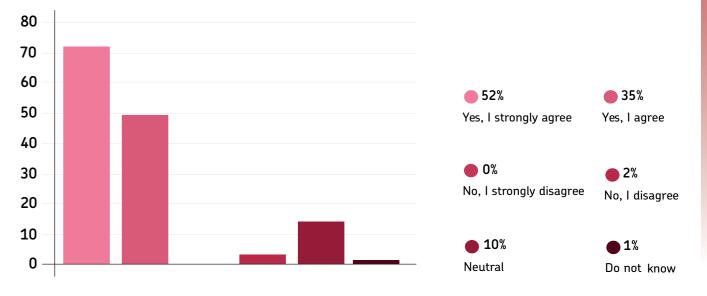




c) Participation in public engagement

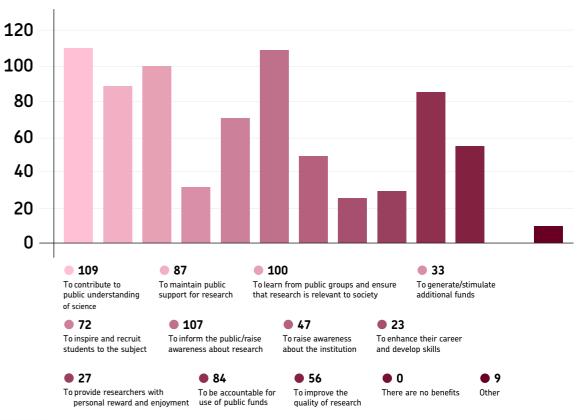
52% of the survey respondents 'strongly agreed' while 35% 'agreed' that engaging with the public on matters of science and health is the responsibility of the researchers.

Do you agree that engaging with the public on matters of science and health is the responsibility of the researchers?



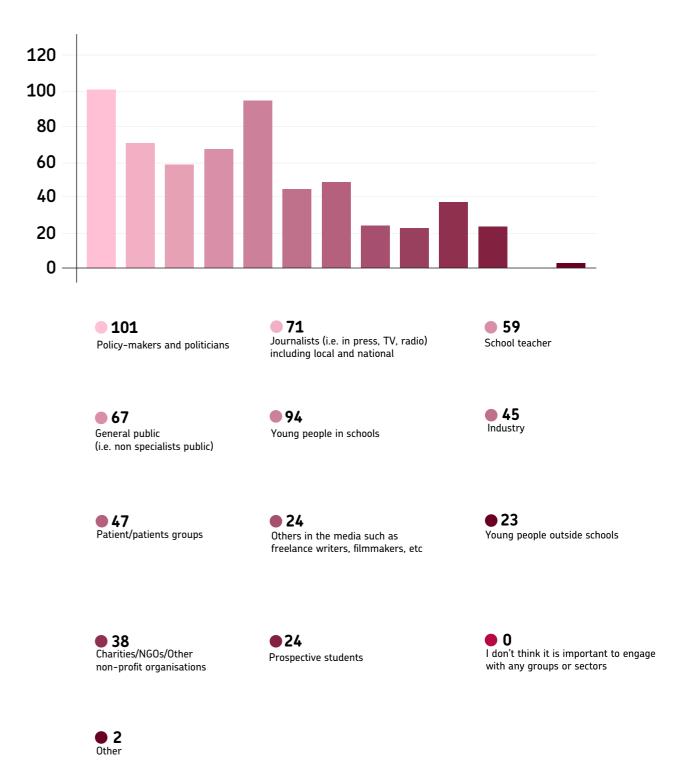
Respondents selected 'contribute to public understanding of science', 'inform the public/raise awareness about research, and 'learn from public groups and ensure that research is relevant to society' as the top three main benefits of engaging with the public. Policymakers and politicians, young people in schools and media/journalists were indicated as the three main groups they would like to engage with.

What do you think is the main benefit, if any, of researchers engaging with the public?



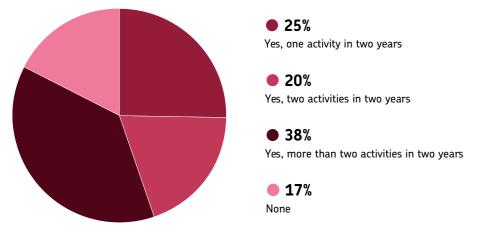


Which groups or sectors outside academia, do you think it is important for researchers to engage with?

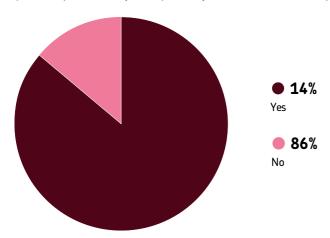


To get a sense of how often our grantees engaged with the public, we asked them if they had taken up any public engagement activity or shared their science with the public at large in the past two years. 83% of the respondents participated or undertook at least one public engagement activity in the last two years—25% undertook one activity, 20% undertook two activities and 38% respondents undertook more than two activities in two years. Out of the 17% who undertook no activities in the last two years, 86% did not receive any opportunity to engage with the public and 14% received an opportunity but did not participate

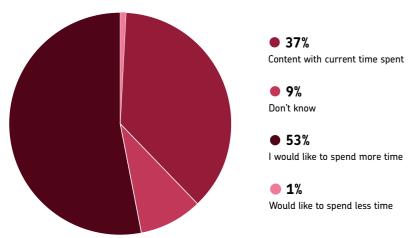
Have you taken up any public engagement activity in the past two years?



Did you have opportunities to take part in communication or public engagement activities (in the past two years) that you did not take up?



How much time would you like to spend engaging with the public?



53% of the respondents said they would like to spend more time engaging with the public. Whereas 37% are content with the time they are currently spending on public engagement activities and 9% are unsure about how much time they would like to devote to this.

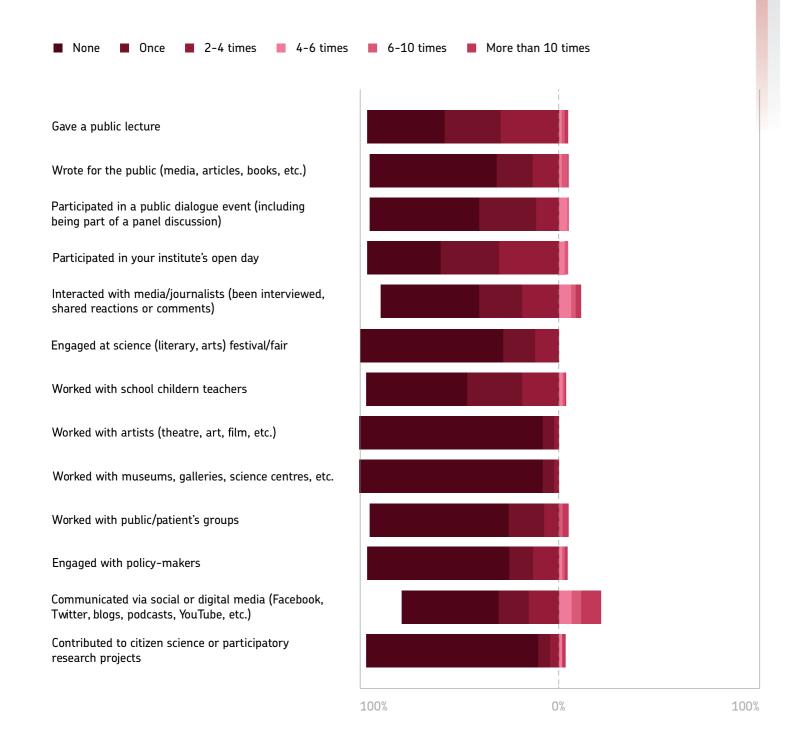


d) Nature and scope of public engagement activities

Public lectures, panel discussions, open day events at institutions, interacted with media/journalists (been interviewed, shared reactions or comments), writing media articles and social or digital media (Facebook, Twitter, blogs, podcasts, YouTube, etc.) appear to be popular modes of communication and engagement used by the respondents. 59% of the respondents pursuing clinical and public health research indicated working with public/patient groups.

Only a few respondents (5%) indicated that they worked with artists, museums, galleries, science centres, etc. and contributed to citizen science or participatory research projects. A few of them shared details of their ongoing public engagement projects.

What were your public engagement activities in the past two years?



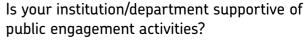


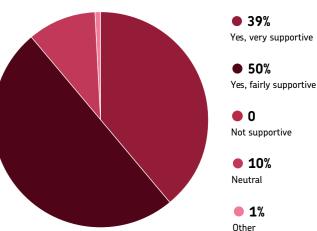


2. Enablers, challenges, and barriers to public engagement for researchers

a) Institutional support

Through this survey we waned to understand the support at organization level for public engagement. When asked if their respective organizations were supportive of public engagement activities, most of the respondents (89%) indicated that their institutes/organizations were either fairly (50%) or very supportive (39%) of public engagement activities. 10% of the respondents chose to remain neutral. The exact nature of this support offered by institutions, whether in spirit or tangible, was not ascertained through this report.



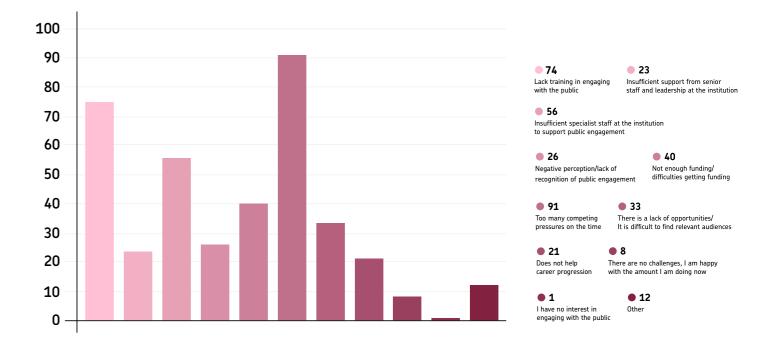


b) Challenges to public engagement

To understand the main challenge associated with researchers engaging with the public or local communities, we asked the respondents to choose the three most important options, in their opinion, from a list. 'Too many competing pressures on time', 'lack of training in engaging with the public' and 'insufficient specialist staff at the institution to support public engagement' emerged as the top three challenges.

After the above-mentioned factors, 'not enough funding/difficulties in getting funding' and lack of opportunities/difficult to find relevant audience' also stand out as challenges to public engagement.

What would you say is the main challenge associated with researchers engaging with the public or local communities?



c) Enablers for public engagement

In a Likert scale question where respondents were asked to rate importance of a list on a scale of 1 to 5 (where 1 is not important and 5 is very important), 'if my institution had a public engagement specialist' (58% rated 5 & 4), 'if it was easier for me to get funds for engagement activities ' (54% rated 5 & 4) and 'if my public engagement work was recognised and valued more '(49% rated 5 & 4) stood out as the most important factors that would encourage researchers to get more involved in engagement with the public or local communities. Training in public engagement, more support from public engagement specialists at institutions, and time for public engagement activities also stood out as important enablers.

The observations with regards to enablers, which can encourage researchers to take up public engagement projects, correlates with the indication that competing pressures on time and lack of public engagement expertise are the two major challenges to be addressed to increase chances of researchers taking their science to the public.

What would most encourage you to get more involved in activities to engage the public or local communities?

If I received more support from my supervisor/senior leadership at my institution

If I received more support from public engagement specialists at my institution

If my institution had a public engagement specialist

If I was relieved of other work to accomodate public engagement

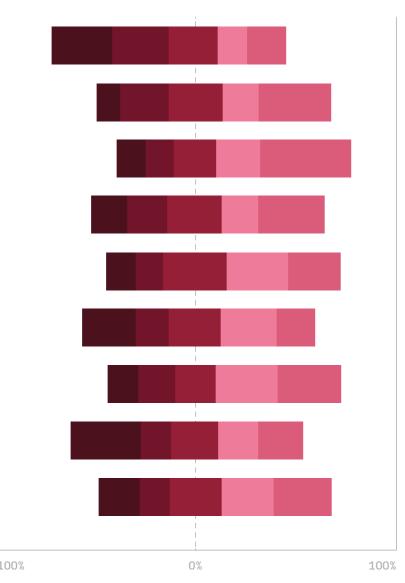
If my public engagement work was recognised and valued more

If I had help from from external centres or collaborators

If it was easier for me to get funds for engagement activities

If it brought money into my department/institution

If I had some (more) training







Below are inputs shared by some of the respondents:

The senior leadership always encourages public engagement, however competing interest from other institutional and research duties make this relatively less a priority. Also, the lack of proper training makes me feel less confident."

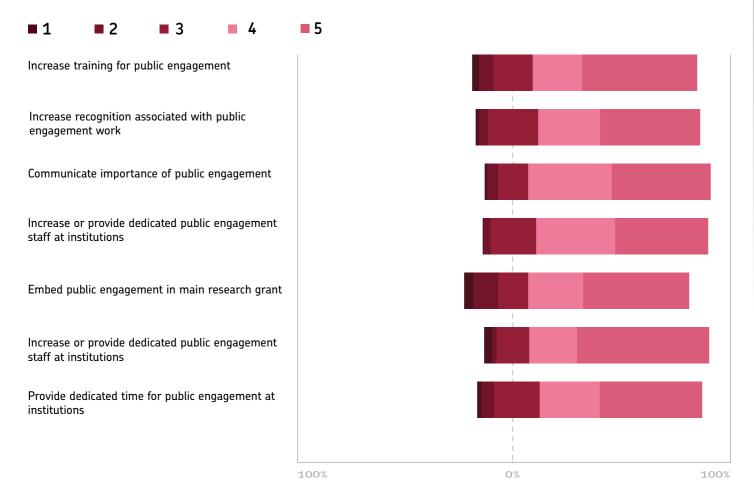
As researchers, we lack training on how to engage with the public and simplify our science to reach the right audience. Public engagement specialists do not exist in our kind."

Writing media articles and engaging with the press is easy. Getting a physical audience of patient groups is a challenge."

Would help if a specialist in public engagement conducted these activities more often for me to participate. I am not finding time to organize all of it by myself."

Respondents were asked how they feel the support for public engagement or the delivery of public engagement by researchers could be improved in India. 'Increase recognition associated with public engagement work' (81% rated 5 & 4), 'Increase or provide dedicated public engagement staff at institutions' (80% rated 5 & 4) and 'Communicate importance of public engagement' (76% rated 5 & 4) emerged as the three top factors to improve support for or delivery of public engagement. The results again mirrored the barriers and incentives highlighted in earlier questions.

How do you feel the support for public engagement or the delivery of public engagement by researchers could be improved in India?



Following are some of the thoughts shared by the respondents in an open text optional question:

Adequate time, support staff and training would be beneficial towards more efficient and substantial public engagement activities."

Provide dedicated time for public engagement at institutions—oftentimes, most researchers, particularly like mine, are engaged with multiple meetings, deadlines, grants, reviews and classes. If a granting agency or institute mandates that a certain number of hours every month or year should be spent on public engagement, then there is good chance that most researchers would 'make' time for it."





Support from the local and central government for public engagement with researchers is critical specially for not-for-profit research organizations. Though our organization is working in these areas for 20 years, with evolving situation the main challenge sometimes is to get an approval from the local health authorities before one can talk to the grassroot level workers and local medical staff."

Researchers need more training on this because they are not exposed to what happens in the field. Online courses/seminars by leading international researchers from diverse backgrounds on public engagement may be introduced and circulated in all institutions. Social scientists must be pulled up in this. Institutes need to be engaged at the top level. The outreach and advocacy activities must be given points to researchers during their promotions."

Public engagement is not recognised as part of research activity. Thank you for bringing this into limelight. I am sure it will change for the better."

Public engagement is a new concept. It is strongly promoted by funding agencies from the high-income countries. Most funding agencies in the Indian context are yet to recognise its need and allocate parts of their budget for such an activity. It is important for researchers to be sensitised to public engagement, its importance, and its objectives. Making public engagement a necessity within funding applications is therefore important to promote the concept. However, to do so, funding agencies themselves need to be sensitised to the concept."

India Alliance offers funding for public engagement projects that propose to develop novel and creative methods and tools to empower researchers to communicate and engage with the public effectively.

A basic biomedical research fellow of India Alliance, who also received the India Alliance's Public Engagement <u>award</u>, stated,

The Public Engagement Funding of DBT/Wellcome Trust India Alliance is a one-of-a-kind opportunity to engage in science communication. There are several modes of science communication including but not limited to science columns, public speeches, fine and performance arts. The Public Engagement Award allows the fellow to pick any media of science communication and effectively engage with the non-scientific community. The IA has a deep commitment towards science communication and has a dedicated team for such activities, which allows the fellows to explore and design tailor-made public engagement activities. As an IA fellow who has availed this funding, I strongly urge others to explore the Public Engagement Funding opportunity, which will be an enriching and rewarding experience."

Another India Alliance fellow based at a medical institution had this to say about their experience of utilising India Alliance's funding for public engagement

Firstly, IA's PE initiative is unique, and I believe enables IA fellows to go beyond research and connect with communities and stakeholders that they engage at a level that may not have been otherwise possible. It was fulfilling, as we came face to face with the creativity and emotions of the people that we engaged with, as we broke barriers to connect with them on a very different plane. Secondly, our workshop on Comics for TB brought together healthcare workers including doctors, helping them disconnect from their routine. We saw their enthusiasm grow through the course as evidenced by the quality of their comics and the stories they developed. Thirdly, at a personal level, the workshop has opened doors to a whole new prospect i.e.; of communicating medicine through art, which I hope to pursue in the future in whatever way possible. Overall, it was a very fulfilling experience, and am honoured to have received the grant and the experience it brought thereof."

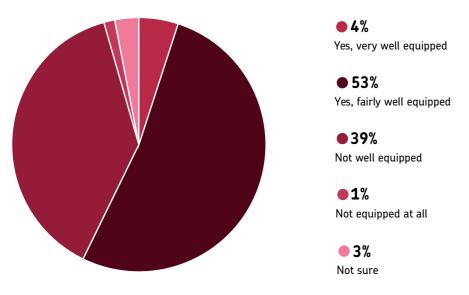
We asked the respondents if they had applied for grants for their public engagement activities to any funding agency/organisation other than India Alliance in the country. Some respondents had approached the following funding sources for public engagement: Wellcome Trust, UK; Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Government of India; Dr Ramachandra N Moorthy Foundation for Mental Health and Neurological Sciences, National Institute of Mental Health & Neurosciences (NIMHANS); Science and Engineering Research Board, Department of Science and Technology, Government of India (DST SERB grants mandate one public engagement activity per year for its funded grants and provides specific additional funding for that purpose); IndiaBioscience Outreach Grant; Department of Biotechnology (DBT), Government of India; Indian Council of Medical Research (ICMR), Government of India; Indian Council of Social Science Research (ICSSR), Ministry of Education, Government of India; Indian National Young Academy of Science, Indian National Science Academy (INSA-INYAS); philanthropic foundations; non-profit organizations like Campaign for Tobacco Free Kids, World Diabetes Foundation, and Encephalitis Society; and intramural institutional funds.



3. Training and capacity-building in public engagement

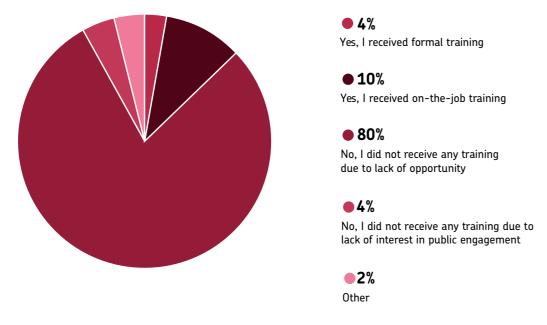
While 57% of the respondents felt fairly or very well equipped to engage with the public, as low as 4% and 10% of the respondents had formal or on-the-job training in public engagement, respectively.

Do you feel suitably equipped to engage with public?



Notably, a large percentage of the respondents did not have the opportunity to train in public engagement. 80% of the respondents did not receive any training in public engagement due to lack of opportunity. When asked about access to formal training opportunities in public engagement, 89% of the respondents denied availability of such opportunities at their institutions.

Have you had any formal training in public engagement?



The respondents were asked what kind of training they would require to be able to engage better with the public. This was a Likert scale and respondents had to rate a list on a scale of 1 to 5, where 1 is not important and 5 is very important. To better engage with the public, the respondent chose the following as the top three areas of training: how to organise/run a public engagement activity (72.4% rated 5 & 4), engagement with schools/children/young people (68.9% rated 5 & 4), and engagement with policy (68.1% rated 5 & 4)

What kind of training would you require to be able to engage better with public?



Public engagement in general/Introduction to public engagement	n		
Public engagement tools and methodologi	ies		
Media training on being interviewed by journalists			
Writing for the public			•
Speaking for the public			_
How to organise/run a public engagement activity	:		_
Engagement with schools/children/young people			
Using social media/digital media			_
Preparing project proposal for public engagement funding			
Writing Pathways to Impact statements			_
Engagement with policy			
	100%	0%	





Credit: Paro Natung, Planetary Health Interpretation Centre in Pakke Tiger Reserve, Arunachal Pradesh, India

CONCLUSIONS

India Alliance grantees demonstrate a clear interest and motivation for public engagement; majority of them agree that as researchers they play an important role in facilitating public's engagement with science. While the respondents agree that public understanding of science and health issues in India is low, they believe that the public is interested in science but does not have access to scientific information and may not understand science very well to begin with. More than half of the respondents also said they would like to spend more time engaging with the public. Furthermore, it was encouraging to note that institutions of majority of the respondents were generally supportive of their public engagement activities.

'Contribute to public understanding of science', 'inform the public/raise awareness about research', and 'learn from public groups and ensure that research is relevant to society' were identified as the top three benefits of engaging with the public in the survey. Respondents also indicated other benefits: to build public's trust and support for scientific research; to enhance their career and develop skills; to garner feedback from different perspectives and areas of expertise for improvement of research; to get more funds and resources for research through public support; to motivate young people to pursue a career in research; to find collaborators for work; to fight misinformation; and so on.

For most of the respondents, public engagement means not only sharing their research or scientific information with the public, but it involves interaction and collaboration with them on matters of science and health. However, the survey data shows that grantees mostly undertook activities that involved one-way communication such as giving public lectures, writing media articles and social or digital media (Facebook, Twitter, blogs, podcasts, YouTube, etc.). This could largely be due to the lack of exposure to the value or tools and methods of two-way communication and engagement. The data for India in the <u>survey</u> run by Wellcome in 2016 also supports this observation "...the public engagement culture in India seemed more to be reaching out to school children and education, often to encourage future funding back to the institution or research lab or because government quotas encourage this."

Respondents considered policymakers and politicians, young people in schools and colleges and journalists (i.e., in press, TV, radio) as important groups or sectors outside academia to engage with. It was encouraging to note that grantees believe that learning from public groups and ensuring that research is relevant to society is an important benefit of public engagement in addition to improving public's understanding of scientific research and its impact.

The survey shows that for majority of the respondents competing pressures on time, lack of training in engaging with public and insufficient specialist staff at the institution to support public engagement programs were the major challenges. In line with the identified challenges, the respondents identified institutionalization of public engagement support through funding and dedicated personnel along with formal recognition for public engagement work as major enablers to boost engagement of researchers with the public. With most of the respondents (89%) having no access to any formal public engagement training facilities at their institutions, interventions for capacity building in public engagement at institution level emerges as a major gap to be addressed in the Indian science ecosystem.

RECOMMENDATIONS

The following recommendations are intended to serve as possible interventions that funding agencies (including India Alliance) and research organisations can implement to enable public engagement with science in India. These are by no means an exhaustive list of recommendations; they are based on the challenges cited by the survey respondents and takes a leaf out from the current best practices and examples in public engagement globally.

1) Training and building capacity for public engagement

Public engagement should be part of grooming researchers and should commence early. Instead of placing the responsibility on the researchers (who are often hard-pressed for time) to educate themselves on the matter, it would be desirable if the Host Institute / Funding agency facilitates a mandatory Public Engagement Training module that includes public engagement assignments. A structured approach will help us (researchers) understand the process and practice it."

Formal training to scientists like me in public engagement and additional funds and dedicated support staff would be of great help to organize public engagement activities outside my time for routine lab-based science. I feel it is important for the public to know and understand, why we are spending so much money on our research projects and to know how the outcome of our research would benefit the society."

Access to tools and resources along with training in public engagement were cited as critical challenges due to which researchers do not feel sufficiently equipped to engage with the public, particularly with certain public groups such as the media/journalists and policymakers. While clinical and public health researchers get to work with patient and public groups as part of their research, basic science researchers working in laboratory settings generally lack this exposure.

To address this training gap, PhD programs can include training modules on public communication of and engagement with science. Regular courses and hands-on workshops, with case studies from India, can be organised for students and researchers to help them appreciate and integrate public engagement practice in or alongside their research programs. In these training courses, special care needs to be given to convey the difference in communication style and engagement strategy depending on the objective (awareness-raising, consultation, collaboration, etc.) and audience (for e.g., school student, a journalist, policymakers, community group, etc.).

Examples of such courses, training and fellowships for researchers: <u>University of Cambridge Engaged Researcher training online edition</u>, <u>British Science Association Media Fellowships</u>, <u>Royal Society Pairing Scheme</u>, <u>SciPEP</u> (<u>Science Public Engagement Partnership</u>) and <u>Wellcome Connecting Science</u>

Public engagement requires an ongoing commitment and effort, and its vital to find time for same as it involves several deliberations with important stakeholders to make it successful. A separate wing of professionals are required to organise and execute the public engagement initiatives."







In addition to providing training to students and researchers, it will be equally important to develop a cadre of professionals who can design and deliver public engagement programs with and alongside the researchers and act as critical drivers of public engagement research and practice in India. These professionals can serve as important 'connectors' between science and society. Over time, specialised training courses can be designed and delivered to build this professional capacity in a more systematic and needs-based manner to support and sustain public's engagement and involvement in science in India

Examples of such courses: MSc in Science Communication and Public Engagement offered by University of Edinburgh, UK; MSc Science Media Production, Imperial College London, UK, etc.

2) Incentivise public engagement

I think public engagement for researchers becomes challenging due to lack of time and lack of help that is required to conduct an event to engage with the public. With some help offered from the institute and some help from funding agency, it is possible for researchers to do this more often and more comfortably."

It would really benefit if the efforts made by the researchers towards public engagement activities are recognized, appreciated and encouraged by respective institutes."

Owing to competing pressures on their time, particularly during early years of an independent research career, researchers find it challenging to undertake or participate in public engagement activities. These challenges were highlighted not just by our survey respondents but by a diverse group of researchers during a listening session organised by India Alliance and the U.S. Department of Health and Human Services (HHS) Office of Global Affairs (OGA) on Fostering International Research Cooperation — Enabling Mobility, Research, and Capacity Building in 2019.

While institutions and funders in India are largely supportive of public engagement activities, these efforts are not a criterion for tenure, promotion, or funding. Additionally, researchers are not expected to formally allocate time for these activities as they would for other institutional and academic responsibilities. This further diminishes the enthusiasm and importance of public engagement in view of other responsibilities such as teaching, administrative and editorial roles that are considered for professional advancement. Dedicated time for public engagement, particularly if it is not already part of a researcher's academic programme, and due weightage wherever appropriate, should be given to public engagement projects/initiatives in funding proposals and faculty promotions.

Public engagement is very important but due to several other scientific and academic responsibilities, we (researchers) are not able to give enough time to it. Probably, it would be a good idea to include public engagement activity as a part of scientific project proposals and provide some additional funds to carry out such public engagement activity."



Respondents of this survey also cited lack of funding for public engagement as a critical barrier. Development of an impactful public engagement program is a time and resource intensive process. It requires dedicated personnel and multidisciplinary teams. More tangible support from the institution in the form of funding or dedicated communication, public or community engagement specialists, would enable researchers to build meaningful and sustainable connections with the public group(s) of their interest.

Integration of public engagement with funding mechanisms will ensure that it is taken up seriously in the beginning and later, it may become natural and more active participation might come up. Importantly, institutions should appoint a public engagement officer to help with the content development for public engagement to make it more appealing and engaging for the public."

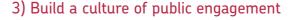
For public engagement activities to have a real-world impact, they need to be carried out in a purposeful, sustained and evidence-based manner. Therefore, plans to engage with the public and other stakeholders should be integrated in research projects right at the start and not appear as an after-thought. This would be particularly critical for research programmes that rely on research uptake, community or public participation or policy engagement to be impactful. This would also ensure that public engagement plans support research goals and do not serve as a distraction.

Funding agencies could consider, as appropriate, providing ring-fenced funds in a research project towards costs related to public engagement activities which could also include hiring of communication or public engagement specialists. For example, India Alliance's Team Science and Clinical and Public Health Research Centre grants provide funds for research management to support and facilitate multi-centre collaborations, a key attribute of these grants. The global science funding charity, Wellcome Trust provides Research Enrichment Funding to its grant holders to help them improve the impact of their work. In a similar vein, DELTAS programme of the African Academy of Sciences provides Seedgrants to its doctoral and postdoctoral trainees to undertake innovative community and public engagement projects aligned to their research projects with the dual objective of building skills and capacity for public engagement and to change mindsets.

Increasingly, various international research grants such as <u>UKRI</u>, <u>The Global Fund</u>, <u>National Institute for Health Research (NIHR)</u>, etc., require applicants to share a 'pathway to impact' that outlines how they plan to make the stakeholders and/or beneficiaries aware of their research to achieve impact. Some of these international funders also require a plan for 'public or patient involvement' in the design, conduct, and dissemination of health research.

Integration of public engagement in research proposals could possibly encourage researchers and their institutions to give sufficient thought and allocate resources and time to carry out public engagement activities and see value in it as well.

Funding agencies and other science foundations in the country could also consider instituting independent grants to promote public engagement with science. These would be particularly useful for researchers who do not have provisions in their research grants to undertake public engagement activities.



The respondents cited recognition for public engagement work of researchers and the need to communicate its value and importance as critical enablers for public engagement with science. Accomplishing this would require a change in culture and shift in mindsets. Therefore, in addition to tangible interventions (training, capacity building and funding), it will be important to build a culture of public engagement with science in India. Among other advantages, this would hopefully result in the scientific community not feeling burdened by the need to engage with the public but instead appreciate its importance and recognise it as part of their research practice. Further, scientists based at institutions that do not support public engagement find themselves at a disadvantage compared to their colleagues working in more enabling ecosystems. Creating a research culture in India that is supportive of such activities would create a level-playing field and ensure equal access to the benefits of public engagement to all researchers.

To this end, building a research culture that has communication and engagement with the public at its very core will be critical. This, to start with, will require policy-level interventions with a shared understanding of the research community that while uptake of research knowledge and new technologies requires sustained engagement with the public, this engagement also informs and makes research ethical, socially relevant, and useful. With this in mind, funding agencies and research organisations can include public engagement in their core mandate and overall institutional strategic framework.

More fundamentally, to enable such a culture, organisations and individuals involved in research would need to build a common understanding of the role public engagement plays in shaping research and its potential impact on human health and planetary well-being. Building such a culture would also enable the members of the public to recognise and appreciate their role in science.

While the overall philosophy, purpose, and practice of public engagement with science can imbibe global standards, its framework and roadmap should be designed and implemented in a way such that it addresses critical gaps and issues specific to India. This report is our first step in this direction to understand the perspectives of a small subset of Indian researchers on public engagement with science and thereby inform our strategy for enabling communication of and engagement with science in India. To this end, the way forward is investment in high quality public engagement, which is based on the following globally accepted tenets:

- Rely on two-way communication to build a relationship with the non-scientific public; therefore, this would be a process of active listening as much as sharing information.
- Understanding of the multidisciplinary, collaborative, and dynamic nature of public en gagement practices; public engagement programmes are driven by diverse teams, skill sets, and a process of continuous evaluation and improvement.





It will be nice if researchers-scientists (senior and early career ones) working in similar fields could come together as collaborative units to plan, seek funding and organise public engagement activities with diverse group of audiences ranging from school/college student and teacher communities, patient groups (to have patients'-care providers expectationsrequirements guide research) and to help layman understand that basic research is as valuable as translational research."

• No framework is universal; public engagement endeavours must pay attention to cultural orientations of their audience. In India, communication in relevant Indian languages and using culturally appropriate methods and tools when engaging with communities will be essential for effective and sustainable engagement.

To find out more about this survey, contact public.engagement@indiaalliance.org



APPENDIX

Survey form

Public Engagement with Research: A Survey for India Alliance Grantees

India Alliance is committed to making science accessible and strives to enable our grantees' engagement with the public on matters of science and health. To be able to better support you in public engagement activities, India Alliance is conducting a survey that aims to do the following:

- 1. Assessment of understanding of, participation in, and attitude towards public engagement with research of India Alliance Fellows/Grantees
- 2. Identify the enablers, challenges, and barriers to public engagement for India Alliance grantees
- 3. Understand the specific needs (training/capacity-building, funding, etc.) and develop recommendations for India Alliance as well as for the Indian scientific ecosystem

We invite you to take part in this 30-minutes survey. Your participation is important in ensuring a robust evidence set, which accurately reflects the views and needs of researchers funded by India Alliance.

Be rest assured that the survey data will be stored securely with India Alliance and anonymized data may be communicated in the future. Also, please note that there are no right or wrong answers in this survey, and it does not matter how much experience you have in the area of public engagement. Should you have any guestions or need more information, please write to public.engagement@indiaalliance.org.

(The survey form was developed and circulated via Microsoft Forms.)

Part 1: Personal details

- 1. Full Name:*
- 2. Host Institution:*
- 3. Location:*
- 4. Gender:*
 - Male
 - Female
- Non-binary
- Prefer not to sav
- 5. How do you identify yourself?*
- Basic Science researcher
- Clinical researcher
- Public Health researcher
- 6. Which of these most closely matches your current job title?*
 - Research Associate/Staff
 - Research Fellow
 - Senior Research Fellow
 - Principal Researcher
 - Lecturer
 - Assistant Professor
 - Associate Professor/Senior Lecturer/Reader
 - Professor
 - Honorary position
 - Other (Please specify)

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7. Where do you work?*

- Research Institution
- Central University
- State University
- Private University
- Higher Education Institution
- R&D Industry
- Others (Please specify)
- 8. How long have you been working as an independent researcher? (indicate time post-PhD)*
- 1-2 years
- 2-4 years
- 4-6 years
- 6-10 years
- 10-15 years
- More than 15 years

Part 2: Understanding of, participation in, and attitude towards public engagement

(Please note that there are no right or wrong answers in this section, and it does not matter how much experience you have in the area of public engagement.)

- 9. What does public engagement mean to you?*
 - Sharing information about your research with the public
 - Sharing information about science in general with the public
 - Interacting with the public on matters of science and health
 - Collaborating/working with the public
 - All of the above
 - Not sure
 - Other (Please specify)
- 10. Elaborate on your understanding of public engagement here.

- 11. Do you consider that people in India are interested in knowing more about science?*
 - Yes, they are interested in science and technology
 - Yes, they are interested but only in health, food and applied science
 - Yes, they are interested but lack understanding of science and technology
 - Yes; however, scientific information is not readily available to the public
 - No. they have no interest in science
 - Not sure
- 12. In your opinion, what is the level of public understanding of science and health issues in India?*
- Very Low
- Low
- High
- Very High
- Not sure

- 13. Engaging with the public on matters of science and health is the responsibility of the researchers. Do you agree with this statement?*
 - Yes, I strongly agree
 - Yes, I agree
 - No, I strongly disagree
 - No, I disagree
 - Neutral
 - Do not know
- 14. What do you think is the main benefit, if any, of researchers engaging with the public? (Please choose all that apply)*
 - To contribute to public understanding
 - To maintain public support for research
 - To learn from public groups and ensure that research is relevant to society
 - To generate/stimulate additional funds
 - To inspire and recruit students to the subject
 - To inform the public/raise awareness about research
 - To raise awareness about the institution
- To enhance their career and develop skills
- To provide researchers with personal reward and enjoyment
- To be accountable for use of public funds
- To improve the quality of research
- There are no benefits
- Any other (Please specify)
- 15. Which groups or sectors outside academia, do you think it is important for researchers to engage with? (Choose three options, which are the most important for your research or for biomedical and health research in general, from the list.)*
 - Policy-makers and politicians
 - Journalists (i.e. in press, TV, radio) including local and national
 - School teachers
 - General public (i.e. non specialist public)
 - Young people in schools
 - Industry
 - Patients/Patient groups
 - Others in the media such as freelance writers, filmmakers, etc.
 - Young people outside schools
 - Charities/ NGOs/ Other non-profit organisations
 - Prospective students
 - I don't think it is important to engage with any groups or sectors
 - Others (Please specify)
- 16. Have you taken up any public engagement activity (or shared your science with the public at large) in the past two years?*
- Yes, one activity in two years
- Yes, two activities in two years
- Yes, more than two activities in two years
- None
- 17. You have not participated in any communication or public engagement activities in the last two years. Did you have opportunities to take part in such activities that you did not take up?*
 - Yes
- No



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18. What were your public engagement activities in the past two years?*

	None	Once	2-4 times	4-6 times	6-10 times	More than 10 times
Gave a public lecture						
Wrote for the public (media, articles, books, etc.)						
Participated in a public dialogue event (including being part of a panel discussion)						
Participated in your institute's open day						
Interacted with media/journalists (been interviewed, shared reactions or comments)						
Engaged at science (literary, arts) festival/fair						
Worked with school children and teachers						
Worked with artists (theatre, art, film, etc.)						
Worked with museums, galleries, science centres, etc.						
Worked with public/patients groups						
Engaged with policy-makers						
Communicated via social or digital media (Facebook, Twitter, blogs, podcasts, YouTube, etc.)						
Contributed to citizen science or participatory research projects						

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- 20. How much time would you like to spend engaging with the public?*
 - I would like to spend more time
 - Content with current time spent
 - Would like to spend less time
 - Don't know

Part 3: Enablers, challenges and barriers to public engagement for researchers

- 21. Is your institution/department supportive of public engagement activities?*
 - Yes, very supportive
 - Yes, fairly supportive
- Not supportive
- Neutral
- Other

22. What would you say is the main challenge associated with researchers engaging with the public or local communities?

(Choose three options, which are the most important in your opinion, from the list)*

- Lack training in engaging with the public
- Insufficient support from senior staff and leadership at the institution
- Insufficient specialist staff at the institution to support public engagement
- Negative perception/lack of recognition of public engagement
- Not enough funding/difficulties getting funding
- Too many competing pressures on the time
- There is a lack of opportunities/ It is difficult to find relevant audiences
- Does not help career progression
- There are no challenges, I am happy with the amount I am doing now
- I have no interest in engaging with the public
- Other (Please specify)
- 23. What would most encourage you to get more involved in activities to engage the public or local communities?

(Please rate importance on a scale of 1 to 5, where 1 is not important and 5 is very important)*

	1	2	3	4	5
If I received more support from my supervisor/senior leadership at my institution					
If I received more support from public engagement specialists at my institution					
If my institution had a public engagement specialist					
If I was relieved of other work to accommodate public engagement					
If my public engagement work was recognised and valued more					
If I had help from external centres or collaborators					
If it was easier for me to get funds for engagement activities					
If it brought money into my department/institution					
If I had some (more) training					

24.	Please add additional comments for the question above (if any).

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- Yes
- No
- Didn't know IA offered funding for public engagement

26.	Funding agency/organisation other than India Alliance that you have applied to for
	public engagement funding?*

27. How do you feel the support for public engagement or the delivery of public engagement by researchers could be improved in India? (Please rate importance on a scale of 1 to 5, where 1 is not important and 5 is very important)*

	1	2	3	4	5
Increase training for public engagement					
Increase funding for public engagement					
Increase recognition associated with public engagement work					
Communicate importance of public engagement					
Embed public engagement in main research grant					
Increase or provide dedicated public engagement staff at institutions					
Provide dedicated time for public engagement at institutions					

28. Please add additional comments for the question above (if any) here.
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Part 4: Training and capacity-building in public engagement

- 29. Do you feel suitably equipped to engage with public?*
- Yes, very well equipped
- Yes, fairly well equipped
- Not well equipped
- Not equipped at all
- Not sure
- 30. Have you had any formal training in public engagement?*
 - Yes, I received formal training
 - Yes, I received on-the-job training
 - No, I did not receive any training due to lack of opportunity
 - No, I did not receive any training due to lack of interest in public engagement
 - Other

- 31. Do you have access to formal training opportunities in public engagement at your institution?*
- Yes
- No
- 32. What kind of training would you require to be able to engage better with public? (Please rate importance on a scale of 1 to 5, where 1 is not important and 5 is very important)*

	1	2	3	4	5
Public engagement in general/Introduction to public engagement					
Public engagement tools and methodologies					
Media training on being interviewed by journalists					
Writing for the public					
Speaking for the public					
How to organise/run a public engagement activity					
Engagement with schools/children/young people					
Using social media/digital media					
Preparing project proposal for public engagement funding					
Writing Pathways to Impact statements					
Engagement with policy					

33. Any further comments/thoughts:*

Note: Mandatory questions are marked by *





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Advancing Discovery and Innovation to Improve Health

DBT/Wellcome Trust India Alliance (India Alliance) is an independent, dynamic public charity that funds research in health and biomedical sciences in India. India Alliance invests in transformative ideas and supportive research ecosystems to advance discovery and innovation to improve health and well-being. India Alliance encourages diversity, inclusivity, and transparency in science and works to facilitate engagement of science with society.

Office Address
Nishant House, 8-2-351/N/1,
2nd floor, Road no. 2, Venkateshwara Hills
Banjara Hills, Hyderabad -500034



/IndiaAlliance

@India_Alliance



@indiaalliance



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