THE ELSEVIER FOUNDATION Annual Report 2020

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We're committed to doing our part to advance the UN Sustainable Development Goals. Look for the icons throughout the report to understand how our partnerships support the SDGs.

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Youngsuk "YS" Chi

Chairman, Elsevier Director of Corporate Affairs, RELX President, The Elsevier Foundation

"Inclusive health and research ecosystems are more critical today than ever before. We

have a profound role to play in supporting partnerships which incubate new approaches, highlight inequities and catalyze change."

Foreword

"The science is clear. The people are clear. This is no time to procrastinate. [...] The COVID-19 pandemic, the greatest challenge faced by us since the founding of the United Nations has brought us low. But we will not be beaten. We, too, must look beyond the current crisis and set our sights high, as we strike out for a world of dignity and opportunity for all on a healthy planet. Together, let us make this a decade of action; a decade of ambition; a decade of transformation; a decade of hope and peace."

— United Nations Secretary-General António Guterres, September 2020 on the SDG Decade of Action 2020 marked five years since the launch of the UN Sustainable Development Goals (SDGs) and the start of the "Decade of Action" we have left to achieve them. For the Elsevier Foundation, this has meant an essential moment of reflection during a pandemic year: examining and expanding our strategic focus, approach, and how we partner.

In 2020, we worked closely with Elsevier and many of our partners to create The Power of Data to Advance the SDGs, a report which mapped the state of research within each SDG area — a total of 4.1 million articles —acknowledging the pivotal role that research plays in tackling some of the world's greatest challenges. It revealed understudied areas, a need for a more holistic and interdisciplinary approach to SDG research, a duty to close the gap between science, policy and society, as well as a stark lack of sex and gender integration in the research itself.

We also identified the 4 core SDG areas where we believe both Elsevier and the Elsevier Foundation have a role to play: SDG 3: Health and Well-being, SDG 4: Gender Equality, SDG 10: Reduced Inequalities and SDG 13: Climate Action. In late 2020, we expanded our inclusion and diversity focus beyond gender to include systemic inequality around race and ethnicity, receiving an additional \$200,000 a year from Elsevier to add a new portfolio of multi-year partnerships reducing inequalities around health disparities, the nursing shortage, and the STEM pipeline.

Since then, we have also explored how we can build on the growing research, data, and analytics contributions of Elsevier to SDG 13: Climate Action, one of the most important challenges facing the future of our planet. While we continue to explore new proposals and ideas, we have decided to change the focus of our Green & Sustainable Chemistry Challenge to "Chemistry for Climate Action" in 2021. Chemical sciences play a critical role in developing a sustainable future with CO₂ reduction and utilization, cleaner production, energy conversion and storage, entire lifecycles of chemical products, and waste reduction. We also see a stronger intersectionality with the disproportionate impact of climate change on women. UN Women reports that globally, one fourth of all economically active women are engaged in agriculture, where they regularly contend with climate consequences such as crop failure, and experience an unequal burden of care for collecting increasingly scarce water and fuel. Successful proposals will need to integrate sex and gender in the research itself by addressing the role of women in adapting to climate change, as well as their participation in policymaking and leadership positions.

Throughout 2020, we also know that the non-profit sector experienced significant challenges caused by the Covid-19 pandemic: disruption in funding, visibility, productivity, and program delivery, to name a few. To gain a deeper understanding, we spoke regularly to our partners and surveyed their needs: offering no cost extensions, greater flexibility around reporting, deeper collaboration, and more frequent check ins. With our own events, we have also sought to be more accessible to a wider audience as we moved online. Examples include: the OWSD Elsevier Foundation awards for early career women scientists from developing countries, the Green & Sustainable Chemistry Challenge, and a week-long, bilingual Research without Borders science communication training for African health researches with MSF/Epicentre. As we continue to build our portfolios in inclusive research and health, SDG 17: Partnership for the Goals remains our true modus operandi. Since 2016, when we shifted to a partnershipdriven approach, we have committed ourselves to building long term partnerships with time, resources, and ongoing dialogue. This investment has also enabled us to serve as much more effective liaisons to Elsevier, our core partner and funder, enabling them to contribute relevant content, data, analytics, channels, and expertise to help us boost the impact of each partnership.

Looking ahead – and echoing the sentiments of UN Secretary-General António Guterres – the Elsevier Foundation is not only committed to advancing inclusive health and research, but also in playing our role to support a decade of action, hope, health, and equity.

19th April, 2021

Youngsuk "YS" Chi President, The Elsevier Foundation

Ylann Schemm

Director, The Elsevier Foundation

Ve always look for that sweet spot with

partners, wherever possible matching our funds with shared expertise, content, solutions and networks."

Our work

What we do

The Elsevier Foundation is a corporate not-for-profit 501(c)(3), funded by Elsevier, a global information analytics business specialized in science and health. Since 2006, the Elsevier Foundation provides over \$1.2 million USD a year in grants to knowledge-centered institutions around the world. The Elsevier Foundation partnerships support the UN Sustainable Development Goals through tech-enabled innovations in health information, diversity in science and health, research in developing countries.

The Elsevier Foundation also offers a comprehensive matching gift and volunteering fund to enable employees to work with Foundation partners and support their communities.

How we work

The Elsevier Foundation is governed by its Board which is comprised of 5 external and 6 internal or ex officio members representing Elsevier, the company and funding partner. Members serve 3 year renewable terms. Our Elsevier Foundation Board members hold a broad range of expertise in issues such as sustainability, development, innovation, diversity, education, research capacity building, and global health. The Elsevier Foundation Board meets biannually to provide strategic guidance for the Foundation's programming and governance. Throughout the year, Board members also provide expertise and advice around new partnership development opportunities. In addition, the Foundation team also regularly draws on the technical insights of a small number of Elsevier advisors on areas such as data science, health informatics, nursing education and inclusion and diversity.

The Elsevier Foundation Board

The Elsevier Foundation is governed by a Board of 5 external and 6 Ex-Officio members. External Board members serve 3-year renewable terms and represent a broad range of expertise in sustainability, development, innovation, diversity, education, research and global health. Ex-Officio members are leaders within Elsevier and RELX who are deeply supportive of the Foundation's mission. The President of the Board, YoungSuk 'YS' Chi, presides over the annual meeting which provides strategic guidance on program priorities, new partnerships, emerging issues and best practices as well as sound ethical, financial and legal governance.



Yuko Harayama Executive Director for Internal Affairs RIKEN



Nikunj Jinsi (Former) Global Head Venture Capital International Finance Corporation



Beverly Malone CEO National League for Nursing



Geraldine Richmond Presidential Chair in Science Professor of Chemistry University of Oregon



Emilie Marcus Executive Strategy Officer David Geffen School of Medicine UCLA



Suzanne BeDell Managing Director Education, Reference and Continuity Elsevier



Márcia Balisciano Global Head Corporate Responsibility RELX



Kumsal Bayazit CEO Elsevier



Youngsuk "YS" Chi Chairman, Elsevier Director, Corporate Affairs, RELX President, The Elsevier Foundation



John Danaher President Clinical Solutions Elsevier



Esra Erkal Executive Vice President Global Communications Elsevier

The Elsevier Foundation team

On a day-to-day basis, the Elsevier Foundation is run by a small core team consisting of a director, program manager and coordinator as well as a specially appointed treasurer and legal counsel. In addition to annual programmatic funding, Elsevier provides funding to cover the administrative costs of running the Foundation and in-kind support through office space, marketing, media outreach and volunteer support as needed from throughout the company.



Ylann Schemm Director The Elsevier Foundation Elsevier



Domiziana Francescon Parterships Manager The Elsevier Foundation Elsevier



Maha Rhannam Coordinator The Elsevier Foundation Elsevier



Maria Markova Treasurer Elsevier



Kenneth R. Thomson II Legal Council RELX

Our programs

Over the past five years, we have re-aligned our Elsevier Foundation programs to key challenges identified by the UN Sustainable Development Goals in science, health, inclusion and diversity. We have also recognized that technological solutions are increasingly playing a role in helping the world to tackle the Goals. We have evolved our approach into a tech-enabled, partnership-driven model allowing us to develop our knowledge and networks while facilitating closer, more sustained and impactful involvement in the work of our partners.

The partnerships we support are strongly intersectional. In 2020, we simplified our program structure to highlight our commitment to inclusive health and research: supporting underserved communities around the world for better health outcomes and a more sustainable research ecosystem.



Inclusive Health

Information technology can significantly advance the delivery of healthcare in vulnerable communities. Our partnerships support organizations working to improve health outcomes in underserved communities through the innovative use of health information.



Inclusive Research

The future of science requires a robust and diverse workforce drawn from all corners of society. Our programs advance women in science, encourage underserved youth to choose STEM careers, and widen access to academic knowledge for scientists in developing countries.



Matching Gift

To encourage community involvement and maximize the impact of employee giving, the Elsevier Foundation provides a \$200,000 matching gift fund for eligible non-profit organizations supported by Elsevier employees. In addition, the fund is used to support global disaster relief efforts.

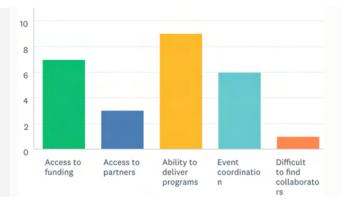
II. Impact of COVID-19

Throughout 2020, the non-profit sector experienced significant challenges caused by the Covid-19 pandemic. In July 2020, we conducted a survey to assess the needs of our partners and gain a better understanding of the challenges they continue to face.

The survey and conversations with our partners have encouraged us to be more flexible in our support. By moving to a virtual environment, we have made all of our events more inclusive and accessible to a wider audience (i.e., the ceremonies for the OWSD-EF Awards and the Green & Sustainable Chemistry Challenge. We have also organized virtual Research without Borders capacity building workshops which tapped the expertise of our Elsevier colleagues (i.e., the EF-Epicentre Science Communication workshop.

Increased difficulties for our partners

Following lockdowns and strict measures instated to combat the virus, most of our partners have had to postpone or cancel events – a situation that has led, in most cases, to greatly reduced funding and engagement opportunities. When surveyed, our partners indicated that they experienced difficulties in their ability to deliver programs, coordinate events, raise funds and find new collaborators – as outlined in the figure on the right,



"We had to cancel all our events and ask participants to join in 2021. This has had major impact on the fundraising targets for Amref."

— MARIANNE HANGELBROEK, Amref Health Africa

Innovation and project adaptation

Despite difficulties, there has also been resilience. Partners who have been able to develop digital approaches to their programs, have been successful in reinventing and continuing their engagement with target audiences. Some of our partners have also been able to proactively adapt to pandemic challenges by offering additional resources. The Sansum Diabetes Research Institute upskilled their community health partners by launching a free COVID-19 database for Latino adults with diabetes, a population at high risk for serious outcomes from COVID-19.

"We were able to accommodate changes by delivering our programs in alternative set-up: e-learning, dividing classes and lessons in half, staying in touch with students, parents, partners, volunteers and each other digitally, and working to deliver on the additional needs of those we work with."

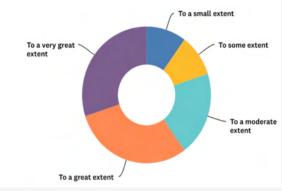
— STASJA VAN DROFFELAAR, IMC Weekendschool

"Five face-to face workshops have been postponed. But we have also developed a hybrid type workshop – a series of webinars via ZOOM combined with hands-on exercises, allowing us to train a large number of users virtually."

— LENNY RHINE, Librarians without Borders

Pivot to remote work

Most of our partners were able to shift to remote working to accommodate the lockdown measures across their respective countries. The impacts of the COVID-19 pandemic have been felt by scientists and scholars worldwide, as universities and industries have closed their campuses, and standard funding and publishing pipelines have slowed or shifted priorities. These challenges, however, are not felt equally by everyone. Institutions and individuals in developing countries often have fewer resources to support remote learning and working. In addition women often face compounding issues by bearing the burden of childcare and household responsibilities, making working from home a far bigger challenge than for most men.

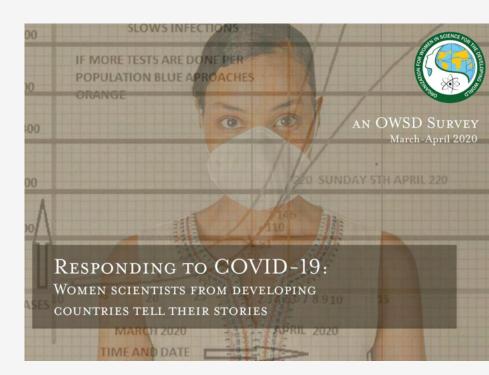


Partners' ability to shift to remote work during the pandemic.

Responding to COVID-19: Women scientists from developing countries tell their stories .

To gain a better understanding of the true impact of the pandemic on women scientists in developing countries, our partner, the Organization for Women in Science for the Developing World (OWSD) asked its members to share how their work, studies, families, home lives and mental wellbeing have been affected.

From a Sudanese molecular biologist making ventilators using 3D printers, to a Sri Lankan biochemistry professor who has volunteered her lab for diagnostic testing: a total of 1,470 responses were collected from women scientists in 85 countries, with more than half working or studying at a public university, 12% working at a governmental research organization or agency and 11% at a private university.



Key findings

- The survey examined the impact of Covid-19 on the OWSD members' work and/or studies, family life and mental health. It revealed both the positive and negative impacts on the women scientists.
- OWSD members reported that whilst some (54%) were able to enjoy more flexible working hours, allowing for more time spent with their families, the pandemic had a significant negative impact on their work/study life.
- In addition to the obvious negative impacts of Covid-19 on conference travel and work events, more than 50% of the respondents reported being unable to perform experiments or field work, 31% were unable to provide teaching, 22% were unable to follow courses, 17% were impacted by delays or suspensions of ongoing funding, 17% experienced difficulties in finding collaborators and 16% were unable to submit funding proposals. These obstacles are in addition to the existing hurdles commonly affecting the career progression of women scientists in developing countries.
- These experiences were heightened by the limitations and health measures instated worldwide, including the inability to access research equipment and fieldwork locations, reduced available working hours due to household or care responsibilities, and difficulties in collaborating effectively with colleagues amongst others.

III. Our 2020 partnerships

Inclusive health



Doctors without Borders (MSF)/Epicentre Niger Research Center

Building field-based research capacity to deliver better medical care worldwide.



Amref Health Africa Innovate for Life

Supporting African entrepreneurs to develop home-grown innovations for health.



Amref Health Africa Leap mLearning

Mobile nursing education for health workers in Eastern Africa.



Sansum Diabetes Research Institute Latino Diabetes Citizen Scientists

Reducing healthcare barriers for individuals with type 2 diabetes.



National League for Nursing NLN/Elsevier HBCU Innovation in Technology Excellence Program

Modern technology coaching course for nurse educators, and scholarships for HBCUs Schools of Nursing.



Julius L. Chambers Biomedical Biotechnology Research Institute Implementation Science Fellowship Program

Rapid adoption of evidence-based interventions to address health disparities in diverse communities.



Black Women's Health Alliance Millennial Sister Circle

Improve healthcare outcomes and reduce health disparities for young African American women.

Doctors without Borders/Epicentre

Niger Research Center



Epicentre Dirctor Emmanuel Baron (center) opens the Epicentre Medical Day in Niamey, January 2020. Opposite page: Ylann Schemm (Director of the Elsevier Foundation), John McConnell (Editor-in-chief of The Lancet Infectious Diseases) and Yvonne Mburu (Founder of Nexakili and co-founder of the French-African Foundation) during the event.

Primary outcome

The partnership focuses on building the capacity of Epicentre Niger's medical and scientific staff, reinforcing Epicentre's ties to the local authorities to guarantee an effective and rapid response to health crises.

In Niger, infectious diseases and child malnutrition are the principle causes of mortality. In 2009 Epicentre, MSF's research and training arm, established in Niger its third research center after Paris and Uganda, to create a viable West African hub to develop implementable solutions to clinical and public health problems. Since then, the Niger Research Center has developed a strong research portfolio and built capacity to investigate epidemics, implement alerting and monitoring systems, conduct clinical trials and prevalence surveys while working with Niger's Ministry of Health and evaluating impact. However, Niger and the Sahel, remain one of the least developed regions in the world with poor academic, research and health infrastructure. Our partnership supports the training of Epicentre's African staff with the goal of eventually running the Center autonomously. Key scientific staff such as field investigators, laboratory technicians, epidemiologists and clinical statisticians have received advanced individual and institutional training in technical areas and have been able to present at Epicentre's Scientific and Medical Days in Paris and Niger, travel for courses and conferences, build their international networks and take up other training assignments in MSF programs and African research centers.





Location Niger / Paris

Beneficiary group

Directly: Epicentre Niger staff. Indirectly: Communities participating in Epicentre research studies, health researchers and policymakers in West Africa.

Budget

\$100,000 a year, 2017-2022

Constraints related to the COVID-19 pandemic have created delays in the Center's ability to use professional development resources. Unused resources will be tapped for development in 2021.

- Provide opportunities outside of Niger for medical and scientific staff to receive additional training to further their careers.
- Encourage staff from Niger and surrounding countries to be mentored and mentor others to sustain a vibrant research culture in West Africa.
- Provide opportunities for staff to promote visibility and encourage discussion on the most pressing issues in medical research.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

The work undertaken through the Elsevier Foundation grant has led to long-term professional development programs with the Kenya Medical Research Institute and the Centre for Infectious Disease Research in Zambia, providing access to higher degrees from the African Academy of Sciences for staff. Epicentre Niger also focuses on broadening the professional development of their staff by enabling them to spend time in other institutions, providing them with exposure and the ability to develop new skill sets. Key Epicentre staff were also able to work in the Democratic Republic of Congo as part of a recent Ebola vaccine trial. In addition, the Epicentre Niger's staff uses an OKR or Objectives and Key Results approach to help them establish individual and collective goals and targets.

Impact of COVID-19

- The COVID-19 pandemic has required new, virtual ways of working, but thanks to the support of the Elsevier Foundation, Epicentre Niger had already started a process of technological upgrading and skills development in 2019. However, some of Epicentre Niger's research studies have been interrupted and had to be reoriented.
- In addition, COVID-19 has led to a restructuring of the Niger research center to improve effectiveness and resulting in the promotion of several staff members to key roles.



Milestones

- In January 2020, Epicentre Niger organized a medical conference in Niamey. It brought together international and local experts, key stakeholder, and representatives from local authorities in a discussion on medical and public health policy challenges for Niger and the Sahel region.
- In 2020, Epicentre was able to transition to a fully cloud-based and GDPR-compliant working system for data management of research projects and trials, goal tracking, status reporting, and remote collaborative work. This digitalization implies new challenges in terms of infrastructure development and building technical skills capacity among the staff.
- In February 2021, Epicentre Niger and the Elsevier
 Foundation co-organized a week-long bilingual workshop
 on effective science communication. Modules included:
 scientific writing (presented by Elsevier publishers Tom
 Thayer and Morgane Dagot), journalistic writing, institutional
 communication, social media (Maha Rhannam, Elsevier
 Foundation Coordinator) and public speaking (Chao Mbogo,
 OWSD-EF Women in Science Awards 2020 winner).

Challenges

- Epicentre Niger is committed to a gender integration process, encompassing staff composition, activities as well as research design and implementation. However, challenges remain in terms of ensuring gender balance within Epicentre Niger's staff at all levels of responsibility.
- Mentoring and continuous professional development for staff is essential to ensure that there is a clear pathway to sustainability. With limitations of movement, providing sufficient mentoring has proven challenging. mentoring has proven challenging.
- Epicentre Niger is working to improve the staffs' English language skills to ensure that they are able to participate more fully in the broader research community.

Future plans

- Further encourage dialogue between practitioners and researchers from different fields and provide more networking for staff in Niger, especially for female scientists.
- In 2020, Epicentre Niger applied for 5-year funding from the African Academy of Sciences.

"We are very proud of the progress that has been made thus far. It could not have been achieved without the support of the Elsevier Foundation grant. Ensuring the professional development of staff is essential and helps us to provide high-quality research, which leads to concrete solutions for the country and beyond."

Amref Health Africa Innovate for Life



The 2020 Innovate for Life. Clockwise from top left: Yared Sertse (Shayashone, Ethiopia), Ebby Wayime (Grace Cup, Kenya), Nebiyat Demeke Fiseha (Rohobot, Ethiopia), and Dahabo Adi Galgallo (Track and Save a Life, Kenya).

Primary outcome

Co-create shared-value partnerships between African health entrepreneurs and Amref programs to jointly achieve sustainable health impact and scale in Africa.

An increasing number of African countries combine young populations with political stability, economic growth and robust internet infrastructure—ideal conditions for creating new markets and attracting investor interest. But the challenges for health entrepreneurs include highly regulated healthcare systems, ongoing health challenges, burgeoning populations and investor biases towards energy and agriculture. Innovate for Life (I4L), Amref Health Africa's health tech accelerator targets this gap by bringing 60 years of healthcare knowledge and deep local and international networks offering dedicated support to entrepreneurs to accelerate Africa's progress.

I4L was launched in May 2017 and focuses on the "missing middle": enterprises too large for microcredit, but too small for traditional commercial investors. They combine knowledge-sharing and in-person mentorship with expertise, networks, access to funding and business coaching from an experienced fund management organization. In 2019, after a 2-cohort cycle, they redesigned I4L with help from Accenture Development Partnerships and Mettā, a Kenyan entrepreneur community, to focus on creating strong strategic partnerships between the entrepreneurs and Amref country platforms, and moving to demand-driven innovations within designated Amref countries. In 2021, the program will cease to be a standalone initiative and will be fully integrated into Amref Venture programs.



Location

Health innovators who have a proven business and health impact model and have tested their innovation for scale in either Kenya or Ethiopia.

Beneficiary group

3 female and 1 male entrepreneurs.

Budget \$50,000 a year, 2017-2021



- For health innovators: Improved regional and technical soundness, capacity to scale, and strengthened strategic partnerships, expansion of health enterprises in South-Saharan Africa (SSA).
- For Amref country offices: Strengthened innovation culture, increased innovation capacity, strengthened partnerships for program impact in SSA, improved efficacy and financial sustainability of programs.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

At the end of each week, Amref collected feedback from the 2020 cohort. The outcome was positive, with most of the sessions having a 4 out of 5 'quite useful' rating.

Impact of COVID-19

- In 2020, mentorship and coaching was carried out virtually, as planned. However, , due to the pandemic, the I4L team was required to move two in-person workshop weeks in Kenya and Ethiopia to a virtual platform.
- With the facilitation of Accenture, the workshop was hosted on Zoom with interaction on Mural, an online whiteboard, to enable the gathering of discussion points.

Spotlight on: 2020 entrepreneurs

- Nebiyat Demeke Fiseha is the Founder/General Manager of "Rohobot", a home based health care service. The company provides home based health care services to elderly people living with chronic illnesses in Ethiopia, to help them attain the highest level of independence by offering support to them and their families. She received title of Laureate of Women in Africa 2019 in recognition of her accomplishments.
- Dahabo Adi Galgallo is part of Strategies of Northern Development. She is the brains behind "Track and Save a Life", which provides an integrated maternal and child mobile health care service for pastoralist women who are unable to access pre/postnatal services. This is achieved by utilizing culturally and socially acceptable jewelry with an integrated GPS system.
- Yared Sertse is the founder of "Shayashone", a private limited company engaged in agricultural commercialization and supply chain development for social impact products, agribusiness advisory and consultancy, and import of industrial raw materials and manufacturing.
- Ebby Weyime is the founder of the "Grace Cup", a company that promotes and sells reusable menstrual cups and cloth pads since 2017. She is a Menstrual Hygiene Management Trainer certified by the Ministry of Health. The company has so far worked with over 2,000 girls and boys across Kenya training them on menstrual hygiene.

Milestones

4 innovators from Kenya and Ethiopia in 2020.

- Orientation Week March 2020: introduction to Amref and the program partners (Elsevier Foundation, Mettā Nairobi and Accenture Development Partnerships) and crash course on partnership- readiness.
- Business Expert Sessions: offering critical support and guidance.
- Mentorship Session: support and guidance from established business owners, who gave feedback on the projects and on how best to work towards partnership models.
- Partnership Co-Creation Week: workshop refine their strengths and value proposition, understand ways of working together with Amref, and investment benefits.
- Post-Program Support: refine innovators' pitches and better communicate their value proposition.

Challenges

Innovate for Life's 2020 approach was to source more mature enterprises with a proven business model and impact in one of Amref's focus countries. Developing a shared-value partnership between an enterprise and Amref, in order to achieve a bigger impact in Africa, takes time, however.

Future plans

- I4L has been a learning journey for Amref in the Netherlands and the country offices, resulting in a better understanding of the added value of building strong partnerships with the private sector to be able to reach SDG₃.
- However, I4L put pressure on Amref staff to dedicate an increasing amount of time and effort to scout, select and support the entrepreneurs. At the same time, innovators from around the world are able to find Amref directly, thanks to a strong brand name. This has led to the decision to discontinue Innovate for Life as a stand-alone initiative in 2021 and incorporate the key learnings into the Amref Ventures program.

"Nothing changes if nothing changes. If nothing changes, we stay the same, we don't grow, we don't evolve, we don't get better and that's not going to work for me, for you or our country, Kenya, and the world. We need positive change, we need ideas and progress, let's adopt GPS bracelets, let's save life, let's save our mothers and children and let's save the next generation. "

— DAHABO ADI GALGALLO, 2020 cohort

Amref Health Africa

Leap mLearning



Primary outcome

Drive lasting health change for communities in Sub-Saharan Africa by increasing access to quality training by reaching learners through Leap's SMS and audio technology.

Leap is Amref Health Africa's mobile learning solution for training health care workers. It employs an mobile learning approach to train and empower health workers to use their mobile devices to learn at their own pace while in the community, providing for both the interpersonal and community aspects of learning.

Ethiopia's healthcare challenges

Despite the efforts made in the past two decades to increase the number and skill mix of health work forces, Ethiopia still has a very low health workforce density, specifically medical doctors, health officers, nurses and midwives. Health extension workers (HEWs), the frontline health workers that provide primary care in Ethiopia, can fill a part of this gap. For this reason, the Ethiopian Ministry of Health is seeking to upgrade and increase the number of HEWs in remote areas and to streamline their education and practice. As part of the Ethiopian government's comprehensive COVID-19 approach, Amref has been appointed to roll out Leap to train health workers.

Amref's solution: train community health workers through mobile learning

The traditional face-to-face learning practices will not be sufficient to train health extension workers at the pace and scale required to fill the health workers gap in Ethiopia. By deploying Leap, Amref can rapidly scale up the training of health workers. More than 90% of Ethiopia's geographic area has access to mobile service which offers tremendous opportunities in efficient health training delivery. The partnership with the Elsevier



Location Ethiopia

Beneficiary group Community health workers and their communities

Budget \$40,000 a year, 2020-2021



Foundation is helping Amref to train a first cohort of 7,000 health workers. Leap offers training modules targeting a range of health workers: frontline health workers, community health workers and point-of-entry surveillance officers

Goals

Amref is working to scale up Leap beyond COVID-19 outreach to structurally improve health care in Ethiopia. Amref's goals include:

- Continue to deploy Leap for the COVID-19 response.
- Design the scale up of Leap in Ethiopia to 40,000 health workers by establishing a social enterprise.
- Generate a mandate from the Ministry of Health for scaling up Leap in Ethiopia.
- Mobilize additional partners beyond the Elsevier Foundation seed grant.
- Identify ways to evolve the use and application of data in Leap to improve training outcomes.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Impact of COVID-19

Given the rapid spread of COVID-19 in early 2020, the Kenyan government asked Amref to use Leap to inform community health workers about the pandemic. By June, Amref had already trained over 60,000 community health workers on COVID-19. Thanks to their close partnership with the Kenyan Ministry of Health, and familiarity of health workers in using Leap, Amref could deploy rapidly and make a direct impact.

Based on their outstanding reputation and network in Ethiopia, the Ethiopian Ministry of Health has asked Amref to replicate this process in Ethiopia. In the fall of 2020, Amref used internal funds to launch the deployment of the COVID-19 Leap module in Ethiopia, and will be able to use the Elsevier Foundation grant to further develop the program.

Data project with Elsevier

As a major, African-driven health NGO, Amref is well-positioned to develop data analytics services. It operates between local communities and healthcare systems and develops proprietary tools (such as Leap) that facilitate data gathering.

To assist Amref with its data journey, Elsevier has been providing technical expertise through skills-based volunteering. The project, led by Elsevier Foundation's Health Advisor Mev Samarasinghe, VP and Technical Fellow, Elsevier, guides the Amref team in cleaning, analyzing and integrating their existing Leap datasets. By providing guidance on how to develop an efficient 'data first' mindset, and how to use the data in an effective and efficient way, the project represents a necessary first step for Amref to be able to scale up Leap in different countries. In 2021, the Elsevier Foundation and Amref teams will explore an additional collaboration with DataKind to further develop this da-ta project. Ultimately, the goal is to help Amref to advance a more sustainable data-driven ap-proach to the healthcare and training they provide across Africa.



"I loved doing the mobile learning. I was the top performer maybe six or seven times - can you imagine? Some of the other CHVs are a lot younger than me. But I beat them almost every time! Why? Because I'm interested! I like to learn anything that helps me help people."

— AMINA, Community Health Volunteer, Kilifi County, Kenya

Sansum Diabetes Research Institute Latino Diabetes Community Scientists



Primary outcome

Reduce the disproportionate burden of diabetes affecting Hispanic/Latino families in the United States through research, education, and care including the use of digital health technologies.

U.S. Hispanics/Latinos bear a disproportionate burden of type 2 diabetes (T2D). Social and environmental factors, including access to care, low rates of research participation and low health literacy, account for 90% of the risk for T2D progression. The aim of this Sansum Diabetes Research Institute (SDRI) project is to develop community rapport to strengthen the health literacy and research expertise of Latino Community Scientists and create an evidence-based technology-diversity-health nexus in the Central Coast of California, with a view to scale.

Community Scientists/Especialistas

Hispanic/Latino adults make up almost 40% of California's population, but only 8% of nurses and 5% of doctors. Community Scientists are drawn from the local population and take lead roles in (a) participant recruitment and retention; (b) data collection including the application of wearable technologies and (c) providing cultural oversight into the creation of materials supporting SDRI programs.

Mil Familias

The Mil Familias study enrolls 200 individuals living with T2D. The primary objective of this study is to determine how genetic, biological, psychological, behavioral, and social-environmental influences impact the progression of T2D and the associated cardiovascular complications over time. This includes the use of wearable technologies to measure health outcomes.

Location Santa Barbara County, CA

Beneficiary group Hispanic/Latino families

Budget

\$100,000 a year, 2021-2022

Constraints related to the COVID-19 pandemic have created delays in the ability to use professional development resources. Unused resources will be tapped for development in 2021.





Accessible research Findings

Hispanics/Latinos also have less access to relevant published research findings: even "publicly available" diabetes information is not written at an appropriate health literacy level in English, let alone Spanish. To democratize research findings, SDRI experts select the most relevant recent articles on clinical trial results and health guidelines from peer-reviewed medical journals and authoritative media sources. The research is then summarized, replacing medical and technical jargon with accessible English and Spanish versions to mitigate the health literacy and numeracy barriers faced by the Hispanic/Latino population.

Goals

- Consolidate the Mil Familias curriculum with the addition of new training materials that can be used for distance learning.
- Train bilingual Community Scientists to administer research instruments and deploy wearable devices.
- Interpret the results involving the recruitment of Hispanic/ Latino adults with or at risk of T2D to wear devices to capture data related to glucose, activity and sleep to determine feasibility and acceptance of digital health.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

SDRI is a research organization with publication being a major metric of success. In 2020, 7 articles were published based on the 2020 SDRI-Elsevier Foundation partnerships.

Milestones

In 2020, 200+ families recruited into Mil Familias and 200+ predominantly low-income Mexican-Americans into the Farming for Life program.

- SDRI has obtained IRB approval for the study on using wearable digital health technologies for Hispanic/Latinos with or at risk of diabetes. Recruitment began in February 2021.
- Since March 2020, SDRI has posted, in English and Spanish, an average of 34 posts per month on their website.

Impact of COVID-19

- SDRI launched the COVID-19 Diabetes Emergency Response to provide support for disproportionately impacted communities, including Hispanic/Latino, low-income, and food insecure populations.
- SDRI's Community Scientist/Especialista infrastructure enabled immediate contact, with 622+ calls or texts between Especialistas and Mil Familias participants.
- Added a bilingual helpline for telephone and text queries related to diabetes and/or COVID-19.
- Launched the Latino diabetes and COVID-19 bilingual web resource.
- SDRI Director of Research and Innovation David Kerr co-chaired the First International Summit on COVID-19 and Diabetes, held in August 2020.

Challenges

In February 2021, SDRI launched a vaccination program for Hispanic/Latinos with diabetes. Unfortunately, it has met with major challenges related to supply. The impact of the pandemic has also challenged SDRI's research and development priorities.

Future plans

In 2021, SDRI will launch a new initiative targeting Latino young people to become youth scientists with the aim of encouraging their peers to use a combination of food as medicine and digital health to improve their physical and mental health.



"Diabetes, like COVID-19, is a wicked problem. To resolve it [...] there is a need to create a digital diabetes ecosystem that is equitable. [...] That is also the challenge, and opportunity, for the diabetes community."

— DAVID KERR, Director of Research and Innovation and NAMINO GLANTZ, Associate Director Mil Familias Programs, SDRI. In *The Lancet Diabetes & Endocrinology*, Volume 8, Issue 11, 2020, pages 873-874.

National League for Nursing

NLN/Elsevier HBCU Innovation in Technology Excellence program



Primary outcome

Use innovations in simulation and technology to drive teaching excellence; developing online, virtual products to both enhance faculty skills and expertise, meet the needs of learners and promote student's critical thinking skills.



While many nurse educators are experts in the art and science of nursing, they may not always be experts in the art of teaching and learning. Engaging students in contextual learning using technology and dialogue shifts the focus from learners as doers of actions to learners as meaning makers. Innovation in technology and teaching are increasingly becoming an essential tool for nurse educators in preparing students to provide safe and quality care in diverse healthcare settings.

This need is even greater in Historically Black Colleges and Universities (HBCUs) Schools of Nursing, where resources for faculty development are often limited and the students they teach are from underrepresented populations.

The National League for Nursing's Coaching for Excellence in Nursing program provides nursing faculty in HBCUs the opportunity to enhance their coaching skills and facilitate student learning through innovative technology. The course includes e-learning modules that provide context for understanding nursing students' challenges and how educators can help with the transition to professional practice.

Location

Beneficiary group

Nursing Faculty teaching in 5 Historically Black Colleges and Universities: Hampton University North Carolina Agricultural and Technical State University Tuskegee University Winston-Salem State University North Carolina Central University

Budget

\$100,000 a year, 2021-2022



- Enhance faculty expertise with active teaching and learning strategies to meet students' needs, understand challenges and promote reflective learning.
- Develop faculty expertise to enhance the teacher/learner relationship to provide effective feedback to students through online learning environment.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Prior to faculty enrolling in the course, faculty and their learners were surveyed on their perceptions on educational best practices using the NLN Educational Best Practices Questionnaire-Curriculum (EPQ-C). This showed a difference in faculty vs students perception of the learning environment as a space that promotes active participation and challenges thinking and abilities. In 2021, NLN will conduct faculty focus groups to obtain qualitative and quantitative data for the course and the new Next Gen Teaching and Learning webinar. They will also obtain faculty and learner perceptions of the use of educational best practices using the EPQ-C.

Future plans

NLN will expand the project during 2021 to increase capacity building for faculty to gain enhanced expertise in teaching and coaching. Additional faculty from the same five HBCUs will be enrolled in the course, and NLN will provide a Teaching Thinking Next Gen Learning webinar at the completion of the course.

Milestones

The Coaching for Excellence Course provided a five-hour online course with the goal of developing critical dialogue techniques to enhance students' thinking.

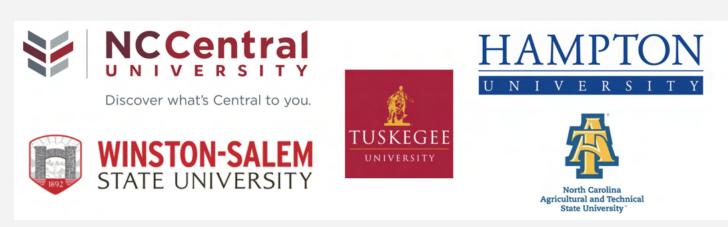
- 36 nursing faculty from 5 HBCUs enrolled in the NLN Coaching for Excellence course. Performance score increased from an average score of 8 to 9.5 out of 10.
- 95% of faculty enrolled in the course agreed that the course modules enhanced their skills to give effective feedback, better understand adult learning theories and styles.
- 90% of faculty agreed that the course provided new ideas and assisted in making gradual change in the teaching learning process.

Impact of COVID-19

The NLN staff were able to be flexible and modify the time for faculty to begin the NLN Coaching for Excellence Course. With the advent of COVID-19, faculty had to move rapidly to online teaching and identify innovative, virtual ways to provide clinical practicums for students since hospitals and other healthcare facilities were no longer allowing students in their facilities.

Challenges

- Providing faculty development using technology was a challenge, as many faculties were not familiar with the use of technology in teaching and learning.
- Additionally, the course commenced at the beginning of the Covid-19 pandemic when faculty were already burdened with having to quickly pivot to teaching online. This left little time and energy to complete an outside faculty development activity.



Historically Black Colleges and Universities Schools of Nursing Scholarship Fund

For many Black students, choosing a nursing school in an HBCUs provides substantial encouragement and support to thrive in their careers while focusing research and outreach on the needs of minorities. Building off of the National League of Nursing/Elsevier HBCU Excellence in Technology Innovation program, the 2020 scholarship fund provides each of the five participating HBCU Schools of Nursing with a \$10,000 scholarship fund to provide additional support for the nurses of tomorrow.

Julius L. Chambers Biomedical Biotechnology Research Institute

Implementation Science Fellowship Program



Faculty of the Julius L. Chambers Biomedical Biotechnology Research Institute at NC Central University, with Director Deepak Kumar, PhD, at left.

Primary outcome

Facilitate the rapid adoption of evidence-based interventions to address health disparities in minority and underserved communities.

3 GOOD HEALTH AND WELL-BEING

North Carolina Central University's Julius L. Chambers Biomedical Biotechnology Research Institute (BBRI) conducts multidisciplinary and inter-institutional research focused on health issues that disproportionately affect minority and underserved populations. As part of a historically black college and university (HBCU) BBRI provides graduate students with research-intensive experience that enhance their access to careers in the biomedical sciences.

According to the National Institutes of Health U.S. Library of Medicine, on average it takes 17 years for new evidence-based information to make its way into the routine practices of most clinicians. Patients with diseases that disproportionately affect minority populations may be even slower to benefit from new findings. This is exacerbated by the low numbers of underrepresented minorities in the scientific community, less than 8%. The BBRI Implementation Science Fellowship Program will facilitate the rapid adoption of evidence-based interventions to address health disparities in diverse communities. Implementation science studies the transformation of evidence-based findings into realworld applications. With a one-year pilot grant, the BBRI team, led by Dr. Deepak Kumar, Director of the Julius L. Chambers Biomedical/Biotechnology Research Institute at NCCU, will focus on how community-based interventions and health care innovations can be applied in underserved communities to address health disparities and improve patient care in minority populations. **Location** North Carolina, US

Beneficiary group Minority populations and communities in North Carolina

Budget \$100,000 a year, 2020-2022



- Establish community advisory boards and focus groups to develop relationships and begin engaging communities in underserved counties within North Carolina.
- Host a multi university Implementation Science seminar series, in partnership with researchers from Duke University, the University of North Carolina-Chapel Hill and RTI International, to support additional mentoring and networking efforts.
- Organize outreach and networking activities within the NCCU community.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Future plans

- Further develop and expand community infrastructure to foster increased community resilience.
- Expand the capacity of implementation science at NCCU by providing pilot funding to small research teams and by connecting with nearby institutions.
- Maintain students' engagement at all levels with dedicated seminars or short credit-bearing courses.

Milestones

- A 2020 survey was carried out by BBRI (total of 1,500 responses) to map out the existing disparities exacerbated by the pandemic and design equitable interventions.
- Approximately 3500 PCR-tests were administered in 52 locations and advocacy campaigns to promote the culture of testing within North Carolina.
- The Advanced Center for COVID-19 Related Disparities was founded to conduct multidisciplinary research to study the public health and economic impact of COVID-19 on underserved communities within North Carolina.
- Collaboration with community healthcare providers was developed to effectively deliver Covid-19 vaccination information building on evidence demonstrating that trust remains high in community health educators, health care websites and providers.
- BBRI gathered and delivered data to support the North Carolina Department of Health and Human Services to make informed decisions for the equitable distribution of vaccines across the State.

Impact of COVID-19

As the pandemic continues to disproportionately affect minority populations, Covid-19 has further exposed the need to examine and address health disparities caused by socio-economic determinants. BBRI has founded the Advanced Center for Covid-19 Related Disparities, to conduct multidisciplinary research on the public health and economic impact of Covid-19 on underserved communities in North Carolina. The research conducted by BBRI was shared with the North Carolina Department of Health and Human Services to help them make informed decisions to equitably distribute the vaccine across the state.

"We are looking forward to supporting Dr. Kumar and his team to understand what Elsevier expertise, content, data and analytics can add to this valuable partnership, transforming research into solid, communitybased interventions to tackle health disparities."

"A lot of information coming out of labs and other research initiatives is evidence based, but it takes so much time to get this new information implemented in the community. By the time it reaches them it may be too late, and it may not reach some communities at all."

- DR. DEEPAK KUMAR, Director, BBRI

Philadelphia's Black Women's Health Alliance Millennial Sister Circle



Primary outcome

BWHA's mission is to improve healthcare outcomes and eliminate or reduce health disparities experienced by women of African Ancestry, other women of color, and their families through advocacy, education, research and support activities, programs and services.

The Philadelphia Black Women's Health Alliance was first established in 1983 by 100 Philadelphia women who attended the First National Conference on Black Women's Health Issues in Atlanta, Georgia. Its mission is critical: to improve health care outcomes and reduce health disparities for African American and other minority women and families in Philadelphia through advocacy, education, research and support services.

Health and racial disparities, as well as systemic inequalities, are striking. African American women are 60% more likely to have high blood pressure compared to non-hispanic white women and 1.8 times more likely to have diabetes. They also are more likely to die from breast and cervical cancer, though not more likely to be diagnosed with it.

The PBWHA's Millennial Sister Circle Initiative builds on the success of their earlier program, the Prime Time Sister Circle, a which dramatically improved the health outcomes of more than 310 African American women, aged 40-75 years through a holistic approach to health and well-being.

The Millennial Sister Circle seeks to increase knowledge and improve attitudes and behaviors, empowering young African American women to take charge of their health outcomes and reduce their emotional and physical health disparities. It focuses on improving the emotional and physical health of Black women as it relates to underserved needs during the pandemic period and beyond. It uses a cultural and economic competency model and applies a sustainable approach where participants learn skills to



Location Philadelphia, US

Beneficiary group Black women 20-39 years of age

Budget \$25,000 a year, 2020-2022



change behaviors for the longer term. It has developed an online curriculum that will support Phase I, Mental and Emotional Health, by tacking:

- Stress, Trauma, Depression
- Relationship Needs and Concerns
- Financial Health, Employment and Training
- Drug and Alcohol Needs and Concerns

Goals

- Improved Stress management, including relationships and systemic inequities
- Improved acceptance of, and removed stigma associated with, mental health support and services
- Improved Financial management
- Increased awareness and improvement in drug and alcohol management
- Increased awareness and improvement in nutrition, portion control and physical activity
- Knowledge of importance of blood pressure control and measurement

Milestones

The Millennial Sister Circle will launch in May 2021 providing a non-judgmental space for Black women to increase their knowledge of conventional and alternative approaches to improve and maintain their health and wellness.

- Recruit 48 women between 20-39 years of age to participate in 2 series of workshops, 4 workshop per series
- Retain 70% of participants

<image>

Black Women's Health Alliance interns and Director Brenda Shelton Dunston (left) at a Health Equity event in Washington, DC.

Impact of COVID-19

Within the US, Black women are adversely affected by the social determinants of health, experiencing a disproportionate loss of life and livelihood, including heightened racial tensions, single parent households, polluted neighborhoods, high unemployment and low wages. These factors have multiplied exponentially since the COVID-19 pandemic. Additionally, Black women often serve as the main supporter of their families and the mainstay of their communities requiring a degree of stoicism and a focus on survival. PBWHA aims to provide a safe, supportive space where young women actively engage in learning to make their overall health and well-being a priority.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

"Black women who are currently experiencing a disproportionate loss of life and livelihood, due but not limited to heightened racial tensions, a high stakes election, high unemployment, and low wages. These factors have multiplied exponentially due to the COVID-19 pandemic. We are providing a safe, supportive space where women actively engage in learning to make their overall health and well-being a priority. "

---- BRENDA SHELTON DUNSTON, Executive Director, BWHA

II. Our 2020 partnerships

Inclusive research



The Elsevier Foundation Green & Sustainable Chemistry Challenge



OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing Worlds



Medical Library Association Librarians without Borders

Facilitate the production of high-quality research in low- and middle-income countries through capacity development



African Journal Partnership Program Research without Borders

Building editorial skills through journal mentoring and training with African health publications.



Coach Univeristy of Oregon Water First!

Workshops for African women working in water research to build capacity and create networks.



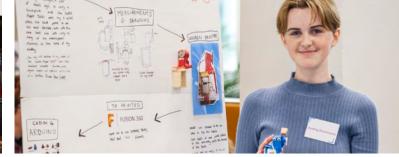
Black Girls CODE Philadelphia CODE Club

Effective, culturally-sensitive, community focused STEM curriculum for girls of color.



Girls Inc. of NYC Pre-G3: The Esevier Foundation Data Analytics Preparatory Program

Technology courses for girls through a social justice lens.



Imperial College London Maker Challge

Provide creative design and technical opportunities for local young people.



IMC Weekendschool Amsterdam STEM program

Inspire underserved students to pursue their goals, and offer exposure to career perspectives.

The Elsevier Foundation-ISC3 Green & Sustainable Chemistry Challenge



First-prize winner Dr Carolina Parada (left) with her students in their lab at the University of Engineering and Technology in Lima, Peru, where they are working on the pretreatment of cocoa pods and pineapple leaves. Right, an image from second-prize winner Clifford Okoth Owino's project involving converting hyacinth plants to affordable biofuel.

Primary outcome

The Challenge awards projects that use green and sustainable chemistry solutions to tackle some of the developing world's greatest challenges identified by the UN Sustainable Development Goals.



With just 10 years left to achieve the UN Sustainable Development Goals, the need for sustainable ideas to tackle global issues is more pressing than ever, and chemistry can play a key role in finding practical solutions to urgent challenges. Chemistry is part of the fabric of every aspect of our lives, and the Green & Sustainable Chemistry Challenge taps the major role that chemists play in developing medicines, fertilizers, and other chemicals needed to resolve critical environmental and climate issues in developing countries. Jointly run with Elsevier's Chemistry journals, the Challenge aims to raise awareness and build networks around how chemistry can help us make crucial progress towards the SDGs.

The Challenge invites applicants from around the world to submit ideas for chemistry solutions to address sustainability challenges– energy, water, waste reduction, recyclability, chemistry, agriculture, medicine and more in low-income countries. The 1st prize Challenge winner receives a \in 50,000 award, and the 2nd prize winner receives a \in 25,000 award.

Location

Global – with applications focusing on challenges in developing countries. The 2020 winners are from Colombia and Kenya.

Beneficiary group

Researchers, labs, universities and local communities

Budget \$60,000 a year



- Highlight innovative chemistry projects that address issues in developing countries.
- Encourage sustainability science, international collaboration and scientific exchange in developing countries.
- Create visibility for an emerging field in the chemistry world.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Impact of COVID-19

The winners' announcement was scheduled to take place during the Elsevier Green & Sustainable Chemistry Conference in May 2020. However, the conference was postponed to a virtual event in November due to the pandemic. The Elsevier Foundation team remained in close contact with the shortlisted participants during these months, ensuring a steady flow of communication and coaching sessions. The new virtual nature of the Conference required the team to adapt the finalists' pitching session and the award ceremony to fit the new format. While the virtual event was successful, critical elements such as networking and visibility could not easily be replicated. The Foundation plans to bring the winners together for an in-person event when it becomes possible in 2021.



Milestones

- In 2020, 318 proposals were received from 69 countries.
- The top 5 finalists pitched their projects at the virtual Elsevier Green & Sustainable Chemistry Conference in November 2020.

The 2020 winners demonstrated how green and sustainable chemistry offers tangible ways to support the UN SDGs:

- First prize: Dr. Diana Carolina Parada Quinayá, from Peru, for her "Use of cocoa waste for green composites production in Pangoa" project which turns discarded cocoa pods and pineapple leaves into low-cost raw material for the furniture industry, helping to reduce deforestation consumes more than 140,000 hectares of the Peruvian Amazon a year.
- Second prize: Clifford Okoth Owino, from Kenya, for his project "Ecofuel/Chemolex" that uses innovative advanced bio-conversion technology to produce affordable multipurpose biofuel from the invasive water hyacinth plant that forms a dense mat on the surface of Lake Victoria.
 Future plans

After 5 successful editions, the Foundation team has decided to refocus the Challenge to more closely align with SDG13 Climate Action, one of Elsevier's 4 key UN SDG focus areas. Chemical sciences play a critical role in developing a sustainable future: whether it's CO2 reduction and utilization, cleaner production, energy conversion and storage, entire lifecycles of chemical products, or waste reduction. In 2021, the Challenge will "[...] promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities".

The new Chemistry for Climate Action Challenge will also aim to recognize the pivotal role women play in combating climate change. Proposals will need to take gender dimensions into consideration such as addressing the role of women in adapting to climate shifts and participating in policy-making and leadership roles. It will offer two \$25,000 prizes to winning proposals and continue to be held at the Elsevier Green & Sustainable Chemistry Conference.

"It is a great opportunity to apply scientific knowledge and contribute to the solution of real environmental problems. Winning the award is also a great commitment: it makes us happy to be able to support the improvement of conditions in Amazonian communities"

— DIANA PARADA,2020 first prize winner

The OWSD-Elsevier Foundation Awards for Early-Career Women Scientists in the Developing World



Winners of the 2021 OWSD-Elsevier Foundation Award for Early-Career Women Scientists in the Developing World (from left): María Eugenia Cabrera Catalán, PhD (Guatemala); Imalka Munaweera, PhD (Sri Lanka); Ghada Dushaq, PhD (Palestine); Khongorzul Dorjgotov, PhD (Mongolia); and Marian Asantewah Nkansah, PhD (Ghana).

Primary outcome

Increase the number and influence of women in science in the developing world. The premise is simple: the more diverse the pool of scientists, the more robust the science. Women scientists often make life-changing contributions to the advancement of the SDGs, identifying problems and finding solutions that others have not considered.



Location Low-income countries.

Beneficiary group

Women scientists from developing countries who have received their PhDs within the previous 10 years. .

Budget \$85,600 a year

Women scientists in developing countries often experience isolation, lack of role models and visibility. For the past eight years, the Organization for Women in Science (OWSD) has collaborated with the Elsevier Foundation to address these issues through a unique awards and recognition program for five talented early career women scientists from Africa, the Arab region, Asia and the Pacific region and Latin America and the Caribbean. The prizes rotate each year between three areas: biological sciences, physical sciences, and engineering, innovation and technology.

Each winner receives a cash prize of \$5,000 and is sponsored to attend the annual meeting of the American Association for the Advancement of Science (AAAS), held every year in February. The winners are presented with their awards at a special AAAS networking ceremony, and have the opportunity to attend workshops and sessions, meet experts in their fields, visit local laboratories and institutions, and attend a celebratory networking dinner organized by the Elsevier Foundation.

The meeting is an important opportunity to establish contacts and collaboration networks with colleagues from different parts of the world.



- Increase the visibility of outstanding women scientists in developing countries: recognizing their achievements means supporting and furthering their careers
- Inspire future generations of women scientists, who struggle in a research environment that is often oblivious, indifferent and even hostile to their needs and expertise.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

OWSD Survey sent in 2020 to 40 alumnae winners.

Impact of COVID-19

- The Selection Committee meeting for the 2021 Awards was held online in 2020. This was turned into an opportunity to invite 9 OWSD-Elsevier Foundation alumnae to act as reviewers. Of a total 19 reviewers, 14 were women from 13 developing countries.
- In 2020, the fund for travel grants to awardees could not be used and the funds have been reserved to support the awardees in 2021 and to enable alumni awardees to attend the OWSD general Assembly.

Future plans

- Funds have been reserved to initiate an alumnae network in 2021 based on the responses received from the 2020 survey.
- Integrate the OWSD-EF winners into the broader OWSD network of 6000+ members as key mentors and advisors and playing a key role to support OWSD national chapter members, PhD and Early Career Fellows.

Milestones

- Since 2013, 45 talented women scientists from 22 countries have won the award.
- Since 2019, winners receive an additional travel grant to continue broadening their networks and amplifying the impact of the award by attending conferences and workshops.
- Since 2014, a supplementary cash award of \$2,500 per winner has been made by private donors, past AAAS President, Dr. Gil Ommen and his partner, Martha Darling, to complement the funding from the Elsevier Foundation.
- Increased scientific excellence: invitations to present on international and regional panels, collaborate on publications and visit laboratories.
- In 2020, 9 alumnae winners joined the OWSD Selection Committee as reviewers for the 2021 Awards, evidencing the continuity and capacity-building nature of the Program.

Spotlight on: 2021 winners — physical sciences

- María Eugenia Cabrera Catalán, Guatemala, in particle physics. For her work focusing on the study of physics beyond the Standard Model of particle physics.
- Khongorzul Dorjgotov, Mongolia, in financial mathematics and modeling. For her research in fractional calculus, differential equations, special functions, invariant solutions, mathematical modeling and financial mathematics.
- Ghada Dushaq, Palestine, in applied physics and nanotechnology. For her work in solid state physics, applied physics, photonics and optoelectronics, nanotechnology and on optical materials and devices.
- Imalka Munaweera, Sri Lanka, in inorganic and materialschemistry. For her work in the area of synthetic chemistry and materials specially in fabricating different functionalized materials, nanoparticles, nanocomposite for various industrial applications.
- Marian Asantewah Nkansah, Ghana in environmental remediation strategies. For her work on contaminants in water, food, soil, and the atmosphere.



"I've always wanted to do something different to make the world better. The Award will certainly give me more exposure and create more opportunities - and I hope that it will attract many more collaborators."

— MARIAN ASANTEWAH NKANSAH, 2021 winner, Ghana

Medical Library Association

Librarians without Borders



Primary outcome

The Librarians without Borders[®] program facilitates the production of high-quality research in low- and middle-income countries through Research₄Life capacity development, fostering South-South and South-North research collaboration that is both accessible and used worldwide.



Before the digital revolution, practicing evidence-based health care, policymaking or education in developing countries was virtual impossible. In 2001, that slowly began to change, first with Hinari, WHO's biomedical free and low cost access to research program and later with open access and Research4life (R4L) which comprises 5 programs including Hinari, 100,000 peer reviewed resources, 9,000 registered institutions and 200 publishing partners. Despite these gains in access however, many researchers, doctors, librarians and policymakers in developing countries still suffer from a lack of information literacy.

Librarians without Borders (LwB) was founded in 2007 by the Medical Library Association (MLA) and supported by the Elsevier Foundation to provide essential face-to-face, trainthe-trainer workshops for the R4L community—and since 2016 an annual training grant scheme for librarians. To date, the partnership has awarded 21 training grants, conducted 100 workshops in forty-two countries and developed a decade worth of training modules. The FAO Research4Life Massive Online Open Course (MOOC) supported by the Elsevier Foundation in 2019 continues to complement LwB's ongoing efforts to scale up virtual training reach and offering participants a required pre training for face-to-face LwB workshops.

Location

Developing and emerging countries.

Beneficiary group

Researchers, faculty/lecturers, students and staff from governmental and local nongovernmental agencies.

Budget

\$45,000 a year, 2016-2021. The Elsevier Foundation funds are often leveraged with additional resources from UN agencies or participating institutions.



- Support the training and promotion activities of the Research4Life programs to enhance the use of its academic and professional resources.
- Increase the number of trainers based at Research4Life registered institutions whose activities will result in a cascading effect on users from their institution.
- Build the Research4Life repository of learning and training with timely and relevant materials, a critical and ongoing activity.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

For virtual Master Trainer Course, pre- and post-workshop surveys are completed; and a six-month follow-up outputs survey is distributed. Anecdotal evidence is also collected in the postworkshop survey

Impact of COVID-19

The pandemic accelerated the transition from face-to-face training activities to virtual programs. In 2019, the R4L Capacity Development team had initiated this move with the development of the MOOC funded by the Elsevier Foundation. This in turn has enabled LWB to further advance virtual training.



In March 2021, 2500 participants registered for a Hinari-focused MOOC. The Research4Life Capacity Development team hosted the course, with support from the Communications & Marketing team.

Milestones

- 5 projects funded in 2020, from Zambia, Nigeria, Tanzania, Ghana and Nepal. Due to the COVID-19 pandemic, only one project has been completed, two are in process and two have been postponed.
- **21** funded projects since 2016 many of them built on previous grants as longstanding collaborations with the host institutions.
- 3 Research4Life MOOC courses conducted in 2020, with participants from 82 countries. 4,900+ users have accessed the course material, 2100 have completed the exams and received course completion certificates. Domiziana Francescon, Elsevier Foundation Partnerships Manager, hosted the Communication and Advocacy Module for each of the 3 MOOCs.
- In 2020, 41 users completed the Master Trainer Course, developed to assure that key trainers have the knowledge and skills to promote and conduct R4L training at their institutions.
- In July 2020, a new set of training presentations was launched which reflect the newly developed MOOC materials. These can be adapted by Research4Life trainers.

Challenges

- The key challenge continues to be how to most effectively utilize the finite resources of the grant. In addition, LWB continues its efforts to reach a larger number of users and promote the training material.
- Since the transition to virtual training, LWB has needed to implement a different set of evaluation tools to assess the impact of these training.

Future plans

- LwB Coordinator Lenny Rhine will continue to help with updating the MOOC, additional training material and assist with conducting the courses.
- 6 MOOC courses are scheduled for 2021 in English, French and Spanish.
- 7 Master Trainer Courses are scheduled for 2021 with completion of the MOOC being a requirement for acceptance.

"The best thing about this course was that it provided an opportunity for me to learn from experts across the globe, along with the interactive webinars and insightful discussion forums. I had an amazing experience."

— MOOC participant from Nepal, November 2020

African Journal Partnership Program

Research without Borders



While in Ghana to attend the Water First! workshop in September 2019, the Elsevier Foundation team had the opportunity to visit Dr. Margaret Lartey, Dean of School of Medicine and Dentistry at the University of Ghana, and Executive Editor of the Ghana Medical Journal.

Primary outcome

Offer skills-based volunteering providing strategic, editorial, communication and operational guidance to boost the impact and discoverability of African health research.

One of the great challenges faced by African research is the lack of effective dissemination both within the African research community and internationally. To boost African health research impact and discoverability, the Elsevier Foundation founded "Research without Borders", a skills-based volunteering partnership with the African Journal Partnership Program (AJPP), a high-profile mentoring program supported by the US National Library of Medicine and NIH's Fogarty International Center and administered by the Council of Science Editors. Research without Borders collaborates with AJPP by providing Elsevier volunteer expertise in publishing, marketing, operations, technology and strategic guidance.

AJPP pairs 10 African health journals with leading US and UK health journals including: The Lancet, The Annals of Internal Medicine, BM], and The New England Journal of Medicine.

Over the past 5 years, Elsevier volunteers provided supplementary training to the African journals for up to 4 weeks in country. The journals include: African Health Sciences, Annals of African Surgery, Ethiopian Journal of Health Sciences, Ghana Medical Journal, Malawi Medical Journal, Rwanda Journal of Health Sciences, Annales Africaines de Medecine, Mali Medical and The Health Press Zambia.



REDUCED

Location

African health and biomedical research journals

Beneficiary group

Researchers, labs, universities and local communities

Budget

\$220,000 in total, 2016-2019. The volunteering program was paused in 2020 due to the COVID-19 pandemic, but the team is planning virtual mentoring, and in-country volunteering will resume when this becomes feasible.



- Strengthening the impact of African health journals by improving quality and discoverability through targeted mentoring teams
- Improving the discoverability of African research by assisting journal editors with applications to Scopus, MEDLINE and other scholarly indexes
- Facilitating the collaboration and knowledge exchange between African editors and their counterparts
- Supporting the training of authors, reviewers and journalists in Africa
- Building journal websites, evolving editorial board practices and improving the pool of authors and reviewers
- Developing strategic business plans, usually with a sustainable open access business model

Level of evidence

Level 1	Quasi-experimental	
Level 2	Pre-post or cross-sectional	
Level 3	Point-in-time study	
Level 4	Performance metrics/stats	
Level 5	Anecdotal evidence	

"The progress of the AJPP journals has been substantial, with the journals all having raised their visibility online for readers and authors in Africa and worldwide, and the editors taking leadership positions in international organizations."

— ANNETTE FLANAGIN, Co-Director, African Journal Partnership Program

Milestones

- Since 2017, 34 Elsevier volunteers have contributed a total of 97 weeks of time to share expertise with journals across 9 African countries.
- In September 2017, we hosted 2 Francophone journal teams from the Annales Africaines de Medecine (DRC) and Mali Medical for a week-long intensive training session in Amsterdam with 5 volunteers from the Amsterdam, Paris and London offices.
- In October 2018, the Francophone team from the *Mali Medical* journal was hosted for a week-long training session in Paris with 4 volunteers from the Paris and London offices.
- A Francophone workshop for the DRC's Annales Africaines de Medecine (AAM) journal team was held during the African Health Agenda International Conference (AHAIC) in Kigali, Rwanda, March 2019. Volunteers Anne Roca (*The Lancet Global Health*), Christine Sempe and Yasmina Ouharzoune (Elsevier) joined AHAIC delivering research capacity building workshops and panel discussions on moving research to policy and African health tech solutions — along with Dr. Pius Kabututu (AAM).
- Over the years, also thanks to the support of Elsevier volunteers, several journals have been indexed in Scopus: African Health Sciences (Uganda), Annals of African Surgery (Kenya), Ethiopian Journal of Health Sciences, Ghana Medical Journal, and Malawi Medical Journal.

Future plans

During the AJPP interim meeting in March 2021, the Elsevier Foundation team presented two proposals for virtual mentoring.

- Remote volunteering will be possible for the journals who need assistance with short-term projects: after filling in a questionnaire, they will be connected with Elsevier volunteers who best match the needed skillset.
- The team also plans to offer a virtual one-week science communication workshop similar to that co-organized with MSF/Epicentre Niger. The workshop will focus on different aspects of scientific communication, including drafting research articles, writing policy briefs, journalistic writing, social media engagement and public speaking.



COACh University of Oregon Water First!



Participants at the Women in Water workshop in Accra, October 2019.

Primary outcome

Provide opportunities for women scientists, engineers and policy makers in Africa to be educated and empowered to assume those leadership roles in water research.

Water security remains one of the greatest challenges of the 21st century. In sub-Saharan Africa, women bear 71% of the water collection burden, produce 90% of all food and comprise 70% of the agricultural workforce. Women are involved in water-related activities such as water conservation, water storage, domestic cleaning, crop production and preparation of food. Despite this, women have restricted access to the resources needed to secure and manage scarce water such as land, agricultural inputs, finance and credit. African women are at the forefront of the daily struggle for water security, but few are in key leadership positions in the water resources area. This lack of representation in decision-making roles removes women's vital contribution to water resource policymaking and management, and further exacerbates the existing disconnection between policy and implementation.

Water First! is one of the international programs directed by COACh, a grassroots organization working around the globe to increase the number and success of women in science and engineering careers. Since 1997, COACh has reached over 20,000 scientists in the U.S. and over 20 developing countries. Water First! delivers workshops to women scientists to build capacity, create networks of women working in water research, academia and provide professional skills development.

Location Africa

Beneficiary group Researchers and policymakers in water science.

Budget \$70,000 a year, 2019-2022.



- Foster a network of women researchers in the US and Africa who have common interests in increasing international water research and collaborative activities between women scientists in these countries.
- Leverage the Water First! network and the expertise of its participants to develop innovative and cross-disciplinary strategies for advancing the research and educational activities of women researchers and their students in these countries.
- Develop plans to maintain and grow this network and to extend its outreach into other scientists (men and women), communities, and institutions.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

COACh conducts Networking Surveys at the workshops to determine the level of Networking within the group. The information collected: Who did you know before coming to workshop/Met for the first time at workshop/ Who do you plan on keeping in contact in the future. A follow-up survey is sent 6 months after the workshop.

Impact of COVID-19

Due to the ongoing COVID-19 pandemic, the Elsevier Foundation has granted COACh a one-year no-cost extension. The team plans to host virtual events during summer 2021, and to resume in-person workshops as soon as feasible.

Milestones

- 27 women from 15 different African countries attended the first workshop held in Accra, Ghana, September 9-11, 2019.
- A WhatsApp group was created for participants to continue staying in contact. To date, the site is very active with participants posting jobs, travel opportunities, conferences, etc. In additon, the WhatsApp group has been a great gauge of how the group bonded in Ghana.
- In March 2021, the COACh team hosted a Water First! reunion to keep engaging with the group and foster deeper connections.

Future plans

- A second workshop is planned for July and August 2021, with a focus on the intersection between water, agriculture and climate. The workshop will be developed in a series of bi-weekly meetings.
- Additionally, the team plans to incorporate one or two virtual sessions drawn from the one-week science communication workshop similar to that co-organized with MSF/Epicentre Niger on social media engagement and public speaking.



"Women's lives are centered around water and yet, they aren't working on policies and implementation. I want to see them become leaders, and that's what Water First! is about."

 PROF. GERI RICHMOND, Presidential Chair in Science and Founder of COACh, University of Oregon.

Black Girls CODE CODE Club Philadelphia



Primary outcome

Offer an effective, culturally-sensitive, community focused STEM curriculum - and additionally provide soft skills training and core community building to foster deeper personal transformation, professional growth, and community ties for girls of color.

Launched in 2011, Black Girls CODE (BGC) is devoted to showing the world that Black girls can code, and do so much more. By reaching out to the community through technology focused programs and events, BGC introduces computer programming and technology to girls from underrepresented communities in technology areas such as web design, robotics, gaming, mobile app development and more.

The mission of BGC is to directly address the issue of racial equity by providing girls of color with an opportunity for early exposure to STEM focused technical careers, and by providing role models from the pool of existing female technologists to "shift the equation" and to feed the pipeline creating the next generation of leaders and builders in technology.

When girls don't see themselves represented in their classrooms or in the fields in which they have an interest, they often choose a different path. BGC provides this important representation and also delivers programs in a culturally sensitive and supportive way. Their programs effectively redirect this pattern of under-representation and empower the next generation of female tech leaders. BGC has a broad impact on a large number of girls by introducing them to STEM and computer science, fostering their interest and skill building, and ultimately creating a community of learners and a network of support and resources on which students can lean. 4 QUALITY EDUCATION

Location Philadelphia, US

Beneficiary group Middle and high school girls from under-represented groups

Budget \$25,000 a year, 2020-2022

This partnership also contributes to:



In 2021, the Elsevier Foundation will support a BGC CODE Club in Philadelphia, offering a series of interactive sessions throughout the duration of this 4-6 week summer program that includes mobile app development, web development, and game development. The program provides participants with intensive training sessions to develop skills sets in one or more of these coding technologies. In addition to classroom instruction, office hours will also be available for participants throughout the duration of the program.

Goals

The BGC Code Club in Philadelphia will be launched in Q3 2021. It will:

- Provide students with a unique experience to acquire valuable coding and STEM skills
- Position these students to secure high-powered career positions in the growing technology sector, creating a pathway for them to become the future leaders and innovators in the technology field.

Impact of COVID-19

- As the world faced a global pandemic, BGC postponed all scheduled in-person events as of March 15, 2020. BGC was able to rapidly roll out their virtual learning opportunities with "BGC Goes Virtual!". Throughout the year, BGC staff carefully and creatively weighed options to provide educational and fun STEM activities and tools to keep students and the broader community, connected and engaged with one another.
- In 2020, BGC held an impressive 170 virtual events with more than 9,500 participants.

Future plans

BGC works to close the digital divide while simultaneously addressing the gender gap prevalent in the tech industry which comprises less than 20% women and only 3% women of color. There is an urgent need to engage larger numbers of women from communities of color in Information Technology (IT) careers. BGC seeks to inspire and support many more girls, from economically disenfranchised communities to find clear pathways out of poverty for themselves and, very often, for their families.





"Over the last three years with BGC, I have become fluent in languages like HTML, CSS, and Javascript. I have been taught community skills, how to work with team members, and fostered self-care between my coding sessions. BGC has given me confidence in coding with girls and boys my age or older, made me more open to opportunities/classes involving technology, and has given me the skill set I need to launch my own business "

— SYDNEY BROWN, BGC student.

The Philadelphia summer CODE club has not yet launched, but the following quote from a current BGC student highlights the significance of their programs.

Black Girls CODE Future Tech Boss Sydney Brown uses technology as a vessel to empower local entrepreneurs in her community. After participating in BGC workshops and garnering new skills, the 16-year-old Michigan native launched her own web design business creating websites for small businesses in the Greater Detroit Area.

Girls Inc. of New York City

Pre-G3: The Elsevier Foundation Data Analytics Preparatory Program



Mariama answers a question in a lesson about probability and fairness in a class of the Pre-G3 Elsevier Data Analytics Preparatory Program. (Photos by Alison Bert/Elsevier)

Primary outcome

Middle school-aged girls completing Pre-G₃ have a firm grasp of core skills and concepts in statistics and probability, greater confidence in their ability to succeed in a more rigorous mathematically focused course, and a stronger interest in continuing their study of data analytics.

Women hold just 26% of data science-related jobs and minority women have an even less advantageous employment outlook, according to a 2017 report by the American Association of University Women. In 2017, less than one in 10 women in the data workforce were minorities: Asian (5%), African American (3%) and Hispanic (1%).

Through its programming Girls Inc, a non-profit serving girls ages 6 to 18 at more than 1,400 sites in 400 cities across the US and Canada, has prepared girls to study in STEM fields and attain college and postgraduate degrees. Over the past 4 years, Girls Inc of New York City (GYNYC) has introduced hundreds of high school girls to the field of data analytics through Generation Giga Girls (G3): The Moody's Data Analytics Program. However, the demand for more programming, serving more girls at an even earlier age, has become a critical priority.

GINYC partnered with the Elsevier Foundation in 2019 to launch a first-of-its-kind introduction to data analytics for girls as young as 8th grade using a social justice lens. Underserved girls often lack the basic hard and soft skills required to thrive in intensive programs like G3. The 8th grade is also a crucial year as students begin to get harder academic coursework, develop time management and organizational skills while being exposed to competing priorities with increasing responsibility at home and social pressure among peer group. Pre-G3 fills that gap by creating a holistic, developmentally-appropriate introduction to data analytics, media literacy, critical thinking, and soft skills – addressing the broader questions of "What is data?" and "Why should we care about data?".



Location

Girls Inc. of New York City runs the program throughout the five boroughs of New York City.

Beneficiary group Girls aged 12-15 years.

Budget \$100,000 a year, 2019-2021

This partnership also contributes to:



- Improve math scores and overall academic scores.
- Increase curiosity and self-sufficiency in STEM, and an understanding of the importance of Data Analytics and STEM.
- Develop a Positive Feedback Loop between the girls' interest, knowledge and skills.
- Increase the percentage of students who demonstrate readiness for high school-level and college-level study in STEM fields.
- Ensure that more than 50% of girls who complete Pre-G3 will participate in the follow up G3 program.
- Increase the number of students who graduate from a postsecondary institution with a degree in a STEM field.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

GINYC applies an Outcomes Measurement Strategy designed to help illustrate and showcase the measurable difference they make. GINYC contract with Philliber Research Associates to evaluate behavioral outcomes as well as academic performance. Additionally, GINYC uses pre- and post-program surveys for program evaluation, in addition to teachers' and facilitators' observations and selfreported behavior change, focus groups, and evaluation of standardized tests and report card grades

Impact of COVID-19

COVID-19 necessitated GINYC to make an abrupt move to online classes. Fortunately, GINYC Pre-G3 data analytics program where readily adaptable to a virtual learning environment and they were able to continue offering classes to nearly 150 middle school girls without any disruption.



Milestones

- In spring 2020, the Pre-G3 program was moved online and continued to serve 150 middle school girls.
- 300 new girls were enrolled from April 2020 June 2020 in a shortened online program focusing on racial injustice and health disparities.
- GINYC hosted a four-week virtual summer camp, "Girl Boss: Becoming a Successful Entrepreneur", to introduce 200 girls to data analytics through entrepreneurship. Using data and their experiences, the girls identified gaps in services within their communities: a group of girls designed an app titled "Inside Out" which took a holistic approach to healthy living.
- 100% of girls enrolled in college/university in September 2020.
- Since 2015, 96% of Girls Inc. alumnae continue to be enrolled in college/university. Nationally, only about 77% of collegeenrolled students from high-poverty schools stay enrolled for a second year.

Challenges

- Due to COVID all GINYC programs were moved virtually. This allowed GINYC to reach more girls but also created some challenges as many of the girls did not have, access to technology, sufficient bandwidth or adequate online skills.
- In addition, many girls experienced mental health issues related to COVID. GINYC incorporated activities from their mental health curriculum (Mind Body Matters) to help with coping skills and strategies for the socio-emotional issues the girls were facing. GINYC was able to connect some of the girls with Mt. Sinai hospital for therapy sessions.
- Students with learning disabilities needed more individualized support. Many experienced significant language barriers and needed assistance from bi-lingual staff, as most of the assistance provided by the school districts is only provided in English.

Future plans

- GINYC will continue the blended learning model once the girls are back in the physical classrooms.
- There is substantial demand to expand the Pre-G3 program with over 12 schools contacting GINYC in 2020 to deliver it virtually. To meet the demand, and increase the number of underserved and minority girls in STEM fields, the most effective strategy is to train teachers to deliver the program. The Fast Track Teacher Training Institute will ensure that teachers have the knowledge, skills, and attitudes they need to effectively reach girls. Trainees will engage in a crash course in Data Analytics and statistics designed to inform and enrich the Pre-G3 experience.

"We talked about topics that were affecting us, like COVID infection rates and issues around racial injustice. It was a much needed safe space during a time of chaos and uncertainty."

— ISABELLA, GINYC student, 12 years old

Imperial College London Maker Challenge



The Maker Challenge cohort of Autumn 2019.

Primary outcome

Provide creative design and technical opportunities for local young people that are outside of their normal daily experience, and for students whose schools do not offer this exposure.

Since 2016, Imperial College London (ICL) has pioneered a new form of outreach at White City, aimed at inspiring teenagers from disadvantaged backgrounds to experience and interact with science through their own creativity. The Maker Challenge Program offers young people aged 14-18 from one of London's most disadvantaged urban communities the opportunity to engage in a creative, innovative and entrepreneurial program designed to build practical and soft skills by taking an idea to working prototype, and potentially beyond.

The Maker Challenge builds on decades of Imperial's more traditional STEM outreach, aimed at inspiring students regardless of background to consider STEM subjects at university. The program is based in White City, where ICL has established their new biomedical campus, and is situated in the larger "Invention Rooms" center which also houses ICL's advanced hackspace and a community engagement space. Participants develop a wide range of vocational technical skills using a variety of tools and equipment including traditional as well as cutting edge technology, such as 3D printers, laser cutters and scanners. In addition, they receive practical business skills training from the Imperial Business School on communication and negotiation, planning, financial management, marketing and sales.

Location London

Beneficiary group Age: 14-18 years old

Spring Cohort 2020: 40 participants, 50% female; 50% male, from 24 different schools

Autumn Cohort 2020: 20 participants, 45% female; 55% male, from 14 different schools

Budget \$50,000 a year, 2019-2021

This partnership also contributes to:



QUALITY

- Develop participants' technical vocational and business skills.
- Develop critical life skills necessary for employment: team-working, problem-solving, presenting and effective communication.
- Support personal growth, confidence and self-esteem.
- Provide opportunities for local young people to consider alternative career routes.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Pre and post participation surveys to map participants' baseline attitudes to STEM subjects as well as aptitudes for understanding and studies. ICL also used the surveys to gather participant feedback. Observational feedback is also gathered from mentors and staff., and from parents/careers.

Impact of COVID-19

Over the last few months, the project team has successfully delivered multiple activity strands with built in flexibility enabling quick responses and an iterative approach. As of April 2020, the virtual model of the Maker Challenge is currently underway with its second cohort (15). A smaller cohort size enables each participant to build a good relationship with the staff and their peers, and the program environment is friendly, social and collaborative. Current considerations include how to expand the digital skills of the participants, including offering activities such as app development or more detailed webpage creation.

The current lockdown and physical school closures have meant that usual recruitment channels continue to be more limited, providing ongoing challenges given the demands of delivering the program virtually. The program team are also seeing an increase in the requests for career guidance and university advice from participants.



Milestones

• Cohorts 12 and 13, Spring 2020. 40 participants, attendance 90%, 50% of the participants were female in both cohorts.

Activities were suspended from mid-March due to the COVID-19 pandemic. Unfortunately, participants were only three sessions away from completing the program, but were unable to resume face-to-face sessions until autumn 2020. Throughout this period, the project team continued to engage with participants, supporting them with online resources and virtual home-based activities, as well as suggested reading and university application support. 23 out of 40 participants opted to return in October. Winners developed a gamified vending machine, wall-walking sport shoes with interchangeable soles, a face mask designed to enable the wearer to have private conversations in crowded spaces, and a fingerprint detector attached to clothing to prevent pickpocketing.

- Cohort 14, Fall 2020: 20 participants, 45% female, fully virtual Maker Challenge. Program equipment packs were sent to all participants to enable them to construct projects at home. The Maker Challenge team also lent out laptops to those whose digital access was limited.
- The Maker Challenge also held a number of virtual 1-2-1 Arduino sessions for current and past participants in November.

Challenges

- Enabling young people to experiment in a hands-on capacity will remain challenging, despite the Maker Challenge team efforts to reconfigure the offering.
- The Challenge addresses a population of young people who are digitally excluded, which has created a barrier to participation during the pandemic. ICL offers laptop loans and purchases of dongles providing internet access. There is also a risk that participants and / or their families do not wish to take part in the program because of either the online or in person nature of the program. By offering listening conversations around platform security, Covid security measures and deferment opportunities, the Challenge team will aim to reassure participants.

Future plans

- Refine best practice in virtual delivery while face to face activity is limited.
- Inspire young people who are disengaged and have low motivation.
- Develop methodology and resources to provide information around apprenticeships, further education and careers.

"We need to listen to their needs, tap into their talents, and – crucially – open our doors. The impact of this will be transformative, boosting opportunity, aspiration and innovation in White City and beyond for decades to come."

- MAGGIE DALLMAN, Associate Provost, Imperial College London

IMC Weekendshool Amsterdam STEM outreach



IMC Weekendschool alumna Maryam Lyousoufi teaches current students about the field of medicine: a growing number of alumni are now providing guest lectures about their own field of study or work, becoming role models for the next generation.

Primary outcome

Inspire students about career perspectives and help them to develop a specific set of competencies, including self-confidence and a professional network, to help them to achieve their goals in the future.



Encouraging careers among young people from communities with severely limited educational resources and few professional role models is crucial. For the past 21 years, the IMC Weekendschool has offered an enrichment program for children in underprivileged neighborhoods across 10 of the largest cities in the Netherlands.

Over the course of the 3-year IMC program, professionals, teachers and volunteer coaches introduce 10–14 years old students to a wide range of disciplines including science and health while helping them to connect more fully to society, develop communication and conflict resolution skills and all-around character development training to improve their career prospects.

Since 2015, the Elsevier Foundation has supported the science and health programs for the Amsterdam West-based Weekend School which is located near the Elsevier office. From 2019-2021 we have provided funding for the development and rollout of a new technology program.

Location Amsterdam West, The Netherlands

Beneficiary group 10-14 years old

Budget \$25,000 a year, 2016-2021.



- Enable identification with the lecturers enabling students to experience what it is to be a professional and execute an assignment that comes very close to the real job.
- Deepen students' understanding about each field of study or work and how it can hold viable career opportunities for them.
- Develop students' essential life skills such as presenting, working together as a team, awareness of self and others, and exercising influence.
- Work with students to generate enthusiasm, stimulate the imagination, creativity and critical thinking.

Level of evidence

Level 1	Quasi-experimental
Level 2	Pre-post or cross-sectional
Level 3	Point-in-time study
Level 4	Performance metrics/stats
Level 5	Anecdotal evidence

Impact of COVID-19

- Due to Dutch national lockdowns, most of the classes had to be moved online. The team worked to restructure their offering to accommodate restrictions, working with smaller groups of students in order to maintain a high level of engagement throughout the courses. This generated extra cost, causing the IMC Weekendschool to rely heavily on the financial health of their partners, which has in turn also been negatively impacted by the pandemic. During the summer, the team was able to host a limited number of classes outside, ensuring safe social distancing between participants.
- The IMC Weekendschool's team contributed to the Amsterdam Museum's online exhibition "Corona in the City", spotlighting their many initiatives.
- They also collaborated with Johnson & Johnson on a webinar tackling the development of the COVID-19 vaccine. It was followed by a session on ethical and religious issues surrounding vaccination and led by an expert working in a vaccine production lab. The speaker was Muslim, reflecting the IMC Weekendschool student demographic.

Milestones

- To respond to the COVID-19 burden on students, the IMC Weekendschool team has integrated mental health classes into every module offered in 2020, with a special focus on issues such as depression and mindfulness.
- As the pandemic has disproportionately hit underserved communities, the team offered personalized care and engaged in (video) calls, home visits and regular check-ins for both students and their families.
- In an effort to professionalize the collaboration between volunteers and parents/caretakers, a new council was piloted to improve relations with the families, their needs and interests.
- An alumni council was also formed, organizing (online) events for graduates.
- In the fall of 2020, the IMC Weekendschool launched a new program for online tutoring, offering opportunities for 1:1 engagement between students and volunteers.
- IMC Weekendschool students were featured in the Dutch documentary series "Klassen" ("Classes") which follows sixth graders just before they graduate from primary school, a journey shared with teachers and mentors. The documentary has resulted in a great deal of positive exposure for the IMC Weekendschool which will hopefully attract additional donors and government grants given the decrease in funding during the COVID-19 emergency.
- During the final program year, a module on gender, sexuality and consent as well as cultural anthropology were integrated into the classes. Students were able to apply their new skills during a small-scale research project in the neighborhood.

Future plans

- Developing new partnerships and upgrading the content for the scientific module in 2021.
- Integrating topics such ethical values, connection with local neighborhoods and world citizenship into the curriculum.

"I have learned that there are more ways to walk an educational path... I can get to study for the profession I really wish for."

— RAYHANA, third years student



The Elsevier Foundation Matching Gift Program

To support community engagement, the Elsevier Foundation provides annual matching funds to charitable organizations supported by Elsevier employees. Each year, our Matching Gift Program earmarks \$200,000 to match employee's individual and group donations to eligible non-profit organizations around the world. The Fund is also used to support global disaster relief efforts championed by Elsevier colleagues. By matching employee gifts, both employee and Foundation resources are leveraged for maximum community benefit, ensuring that colleagues feel connected to the world around them.

Challenges

In 2017, the Matching Gift Fund began working with CyberGrants, a new Matching Gift vendor, to create a more streamlined user experience within the Matching portal. While the US gift matching program has offered users a relatively smooth service, CyberGrants' vetting process for non-US donations has been subject to onerous IRS vetting requirements for 501 (c3) donations to international charities. This has caused considerable delays for the roughly 10% of non-US matches, which, in the long run, threatens to undermine the Elsevier Foundation's reputation and goodwill for our non-US employees.

Future plans

During the course of 2020, the Elsevier Foundation team teamed up with internal stakeholders to assess the impact of the non-US matching program and the feasibility of continuing to offer this service in the current format. After a process of due diligence, the Elsevier Foundation has decided to join the RELX divisions (Lexis Nexis Legal and Professional, Risk Solutions and Reed Exhibitions) to migrate the Matching Gift program to the Benevity platform for charitable donation-management. As a new vendor, Benevity will offer significant economies of scale and expanded international giving. Some of the benefits will include:

- Single, consistent culture of giving across the globe
- Opportunity to manage giving campaigns across Elsevier
- Payroll giving in the US and Canada
- Integration into Elsevier's Workday HR platform and use of Single Sign On
- Reduced and streamlined approvals
- Centralized reporting

Launching in July 2021, Benevity will be offered to employees in the US, Canada, UK, the Netherlands and Germany, representing the majority of current giving. Additional countries will be added to the service during the course of 2022.



Overview of Matching Gift expenditures

The table presents an overview of over a decade of Gift Matching. The spike in 2011 reflects a large scale response to the earthquake and Fukushima disaster relief efforts in Japan; while the spike in 2016 was due to an additional \$20,000 in disaster relief to the Red Cross for the Louisiana flooding. The US matches also continue to comprise about 90% of all matches.

Breakdown of 2019 Gift Matching

US Gift Matching

- Individual level: \$117,690
- Office level: \$41,980

International Gift Matching

- Individual: \$10,580
- Office level: \$3,900

Admin costs

\$42,120

IV. Research4Life

Over the past two decades, Research4Life (R4L) has worked to bridge the digital divide, providing free or low-cost access to research for publicly funded institutions in the world's least resourced countries. As a unique public-private partnership between UN agencies, universities and publishers, it aims to reduce the knowledge gap, stimulating productive and effective research, and promoting international collaborative research. Research4Life is made up of five programs – Hinari, AGORA, OARE, ARDI and GOALI – that provide developing countries with free or low-cost access to academic and professional peer-reviewed content online in the fields of health, agriculture, environment, applied sciences and law.

Research4Life is central to Elsevier's goal of achieving universal access to research information: as a founding and driving partner, Elsevier contributes over a quarter of the peer reviewed resources in Research4Life, encompassing databases such as Science Direct, Scopus, Clinical Key and Embase. In addition, all gold open access journals published by Elsevier are included in the Research4Life open access eligibility program, offering authors APC waivers or discounts.

Research4Life's conducts regular landscape and users reviews, most recently in 2020.The reviews clearly show that the partnership has not yet achieved its full potential in terms of awareness, reach, understanding, effective usage and impact due to underresourcing. To respond to Research4Life's unmet resource need, Friends of Research4Life was established as a US-based 501(c)(3) charitable organization with an independent governance structure and Board of Directors.

The mission of Friends of Research4Life is to accelerate Research4Life's goal to provide much-needed access to the world's premier peer-reviewed research, to extend Research4Life training initiatives that help level the playing field for researchers in lowerand middle-income countries, to significantly increase awareness and usage of the resources offered by the Research4Life publishing partners, and facilitate the research communication process.

"This is really about increasing impact. Friends of Research4Life will enable us to catalyze support for Research4Life, so that we can scale up the important contributions made over the past two decades in access, information literacy and capacity building in developing countries. We invite like-minded organizations to join us in ramping up support," noted Ylann Schemm, Director of the Elsevier Foundation and Chair of the Research4Life Executive Council.

Research₄Life in numbers

- 129,000+ total resources
 28,000+ journals
 111,000+ books
 125+ other information resources
 10,000+ registered institutions
- **165+** publishers partners





A wide range of subject areas Wereaver and arctices Perfutative Civil Engineering Environmental sciences Public Engineering Environmental sciences Public Engineering Environmental sciences Public Engineering Environmental sciences Public Environmental Law Environmental Sciences Public Environmental Law



Our unique contributions

The Elsevier Foundation contributes important resources to Research4Life information literacy capacity building:

- A decade of support for the MLA Librarians without Borders® program providing face to face programs. Since 2016, we have supported additional Research4Life Grants, awarded annually for in-country train-the-trainer workshops. In total, the Elsevier Foundation has donated over \$500,000 in grants to support Research4life training.
- Ylann Schemm, Director of the Elsevier Foundation has worked with Research4Life since 2009 and currently serves as Chair of Research4Life's governing Executive Council. Domiziana Francescon, Elsevier Foundation Partnerships Manager, is the Co-Chair of the Communications and Marketing taskforce, which works to boost the visibility of Research4Life through online campaigns, webinars and articles. In addition, colleagues throughout Elsevier are involved in a range of Research4Life taskforces including eligibility, fundraising, technology, metrics and training.

"I thank the facilitators for the commitment you had towards guiding and engaging the participants. Taking this course was so timely: I never knew we possessed a gold mine of information at my university. With this knowledge, I can train staff and users on how to put this resource to maximum use."

— CHIOMA EDITH MBAKWE, Nigeria, May 2020 MOOC participant

ICSR / STM Perspective

The advent of access programs such as Research4Life have contributed to see a rapidly transforming publishing landscape – making strides in bridging the knowledge gap between high- and low-income countries.

In July 2020, a white paper co-published by Elsevier's International Center for the Study of Research (ICSR) and STM, Achieving an Equitable Transition to Open Access for Researchers in Lower-and-Middle-Income Countries, has highlighted that despite the steady increase in research output from the Global South, in 2018, 75% of researchers from low- and middle-income countries (LMICs) still published in subscription journals. Ylann Schemm organized a panel at the 2021 Academic Publishing in Europe (APE) conference, convening senior representatives from the research, development and publishing sectors to discuss how the publishing community can ensure a more inclusive OA playing field. She noted, "We are founders and drivers of Research4Life, which provides access to researchers in the Global South, but are also deeply committed to building capacity throughout the research cycle by providing content, data, analytics from Elsevier and funding from the Elsevier Foundation."

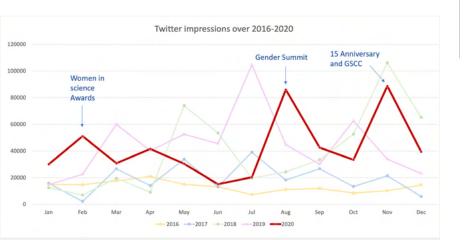


V. Media Outreach

External coverage

Creating visibility for our Elsevier Foundation partnerships is a core priority. By raising awareness around the issues and partners we support, we are able to connect as directly as possible with our communities. In 2020, we targeted traditional or 'earned' media through pitches and press releases, with a total yield of 16 articles featured in a range of outlets including Forbes, The Financial Times and Business Insider. The Elsevier Foundation media coverage is available on our website, where we collected articles and press releases published in 2020 about our partnerships.

Though traditional media remains challenging given our 'good news' focus which has a harder time competing for media attention, each year we receive major attention from mainstream media for our OWSD-Elsevier Foundation Women Scientists in Developing Countries Award program. In addition, we produced a steady series of articles in Elsevier Connect, Elsevier's online news magazine with a monthly readership of 150-200,000 unique visitors a month. Over the course of 2016 to 2020,



UNDERSTANDING OUR SOCIAL MEDIA IMPACT

We have found that better social media results are achieved when we collaborate with colleagues from across Elsevier and RELX who are also conducting regular social media campaigns. Examples include outreach around the United Nations International Days (e.g. Earth Day), which allow us to highlight relevant partnerships and share a portfolio of academic content made available by Elsevier. This collaboration was also essential to the successful delivery of the OWSD-EF Awards for Women in Science in the Developing World, tapping Elsevier's communications expertise to more than double the engagement in 2020. In addition, Twitter impressions and engagement rise when posts are tied to a specific event and highlight partnerships, helping us to further amplify our reach (e.g. Gender Summits). In November, our most successful campaigns celebrated the Elsevier Foundation 15th Anniversary and the Green & Sustainable Chemistry Challenge.

we wrote 72 articles for Elsevier Connect covering our partnerships: 16 in 2020, 15 in 2019, 11 in 2018, 14 in 2017 and 16 in 2016. Our 2020 articles were coupled with new stories published on the Foundation website using Shorthand, a visual storytelling tool. These have included Shorthand stories celebrating the Elsevier Foundation's 15th anniversary, the OWSD-EF Women in Science in the Developing World award winners, as well as our decade-long partnership with Portia and the Gender Summits. Finally, we actively leverage our social media and website channels to showcase our partnerships and projects throughout the year.

Website

We strive to maintain a dynamic website by sharing new content on a weekly basis. www.elsevierfoundation.org is supported by WordPress, an open-source content management system, incurring few costs beyond hosting and occasional wireframe updates. We recently added a new tagging feature to explore topics, articles, blog posts and partnerships by specific UN SDGs — highlighting our commitment to the global goals. We have an average of 500 monthly visitors with the majority coming from the US, China and the UK, followed by Nigeria and The Netherlands. This geographic spread reflects our efforts to also reach audiences in developed and emerging countries while raising the profile of the Foundation among like-minded organizations.

Social Media

Social media brings its own rewards and special challenges. Maintaining active channels, in addition to a dynamic website, is labor intensive for a small team and requires careful prioritization. However, we believe that the channels which we have developed provide us with a direct connection to our communities.

LinkedIn

In 2020, we launched the Foundation's official LinkedIn page, set up as a showcase page linked to the main Elsevier account benefiting directly from their significant presence on the platform. As the majority of our partners and stakeholders use LinkedIn, we believe that creating a profile allows us to extend our reach and engagement with our target audiences. Our goal is to serve as a regular provider of dynamic inclusive research, health and technology content. LinkedIn has proven to be extremely valuable for non-profit organizations due to its large audience of businessto-business professionals who are looking for connections and relevant content. Since 2020, we have steadily increased our number of followers and page views, reaching a total of 430 followers in April 2021. Similar to other channels, the OWSD-EF Women in Science Awards have enabled us to gain momentum with increased engagement and reach around the awardees in February 2021.

Twitter

2020 has been an important year for the Foundation's Twitter channel as we increased our social media engagement with partners and audiences during events such as the Green & Sustainable Chemistry Challenge, Gender Summit Africa, Gender Summit Global and the OWSD-EF Awards for Women in Science in the Developing World. By live tweeting during these events, we were able to intensify interaction with audiences, increasing our Twitter engagement rate by 32% overall from 2020 to 2021. We were also able to maintain a stable reach throughout 2020. During 2021, we plan to further enhance engagement with our audiences by tapping more deeply into our partners' content and sharing expertise on sustainability and inclusive health and research through a targeted Twitter plan.

EF The Elsevier

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"My teacher said I as vinning researcher

Dushaq, Postdoctoral Associate in the Phot rsity Abu Dhabi, one the five winners of the closes for the Developing World (OWSD)-I Meet Dr. da D ds for Early Career Ho e Developing Worl en Scientists in De oping C

Read more about her work and what inspired her to do rese ch at

GG My teacher complained to my mom that I was asking too many questions 'Why does a banana have no seeds? I our shadow is like a mirror, why don't we see the exact colors's



The states and the second prize of the Green Sustainable Chemistry Challenge. Her project "Eco-restoration of crude oil-polludel alren in Niegra' demonstration how organic muchines such as grade fertilizers and aximal excerte can be used to degrade hydrocarbons, cleanin up the soils heavily contaminated by dacades of oil spills. Three years later, caught up with Dr. Chikere to learn about her research journey.

Read more on how her project helped to restore the Niger Delta land via the



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U.S. Embassy Nairobi 🥑

Join us in congratulating our Kenyan #Tech Dr. @chao_mbogho who was among 5 wor Dr. @chao_mbogho who was among 5 women scientists in developing countries to win the 2020 OWSD-Elsevier Foundation Awards

Hongera, Dr. Mbogho! Read more about the award here:



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1,353 In November, we announced the winners of the GSCC, allowing for a greater visibility



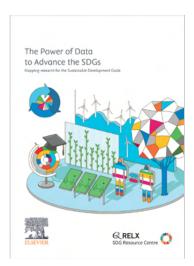
VI. Working with partners

The Elsevier Foundation operates within a dynamic system of partnerships in continuous interaction with each other. We believe that we are uniquely positioned to play a convening role, linking partners who work in similar areas with the aim of maximizing impact and supporting the UN Sustainable Development Goals. By creating synergies and joining forces with other organizations and stakeholders, we can augment our capacity and grow our positive impact in inclusive health and research.

The Elsevier Foundation and Elsevier

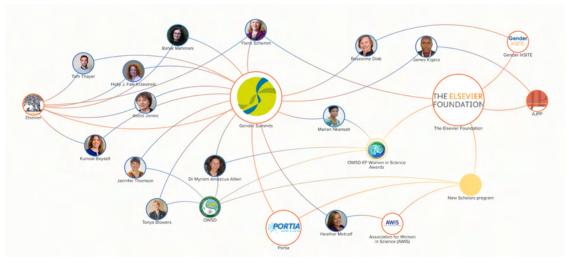
The Elsevier Foundation is an essential component of Elsevier's corporate responsibility program, which centers on our unique contributions to sustainable development in gender, health, climate and reduced inequalities. The Foundation makes extensive use of Elsevier's content, data and analytics resources as well as in-kind expertise to inform, assist and support our partners.

In 2020, Elsevier launched its second sustainability report, "The Power of Data to Advance the SDGs" to mark the 5th anniversary of the SDGs. It offers unique insights, analytics and initiatives, many developed together with partners, to map the state of research within each SDG area. It also highlights Elsevier's 4 key SDG focus areas: SDG 3 – Good Health & Wellbeing, SDG 5 – Gender Equality, SDG 10 – Reduced Inequalities and SDG 13 – Climate Action. The report includes expert insights from Foundation partners on the SDG focus areas, featuring Dr. Githinji Gitahi, CEO, Amref Health Africa), Dr. Elizabeth Pollitzer, Director, Portia and Founder of the Gender Summits and Dr. Geraldine Richmond, Professor of Chemistry at the University of Oregon and member of the Elsevier Foundation Board. These insights, coupled with key metrics developed by Elsevier's analytics team, have equipped the Elsevier Foundation with a strategic evidence-base to inform our next steps, including the development of a new Climate focused Chemistry Challenge, stressing the need to embed gender as a primary dimension of quality.



Gender Summits/Portia

Since 2011, the Elsevier Foundation and Elsevier have been long-term supporters of the Gender Summits and Portia. Our partnership builds on the many synergies between our organizations and the Gender Summits as well as an Elsevier Foundation grant (2011-2013) to help early career researchers navigate the research landscape. Over the years, we have been able to leverage our deep collaboration by introducing many Elsevier Foundation speakers including: Tonya Blowers, OWSD Programme Coordinator (Gender Summit 5, Cape Town, 2015), Jennifer Thomson, OWSD President (Gender Summit 11, Montréal, 2017), OWSD-EF Women in Science awardee, Dr. Marian Nkansah (Gender Summit 16, Singapore, 2018 and Gender Summit 18, virtual, 2020), Roseanne Diab, Director of Gender InSITE (Gender Summit 18, virtual, 2020) and James Kigera, Editor-in-Chief of the Annals of African Surgery, part of the African Journal Partnership Program supported by the Foundation (Gender Summit 18, virtual, 2020). Explore more links in the image below.



VII. Financial overview 2020-2022 Overview of programs

	2020	2021	2022
INCLUSIVE HEALTH	\$485,000	\$465,000	\$475,000
INCLUSIVE RESEARCH	\$451,000	\$331,000	\$276,000
MATCHING GIFT	\$175,380	\$200,000	\$200,000
ADMIN	\$77,500	\$90,000	\$90,000
TOTAL	\$1,188,880	\$1,086,000	\$1,041,000

VIII. Board biographies



Yuko Harayama Executive Director Internal Affairs RIKEN



Nikunj Jinsi (Former) Global Head Venture Capital International Finance Corporation



Beverly Malone CEO National League for Nursing

Dr. Yuko Harayama is an Executive Director in charge of international affairs, the promotion of early career researchers and diversity at RIKEN, Japan's largest research organization for basic and applied science. Prior to joining RIKEN in 2020, Dr. Harayama spent 5 years at the Cabinet Office of Japan serving as an Executive Member of the Council for Science and Technology Policy, Cabinet Office of Japan. She is the former Deputy Director of the Directorate for Science, Technology and Innovation, OECD. She is a Legion D'Honneur recipient (Chevalier), and was awarded honorary doctorate from the University of Neuchâtel. Previously, she was Professor in the Department of Management Science and Technology at the Graduate School of Engineering of Tohoku University. She holds a Ph.D. in education sciences and a Ph.D. in economics, both from the University of Geneva.

Nikunj Jinsi has over 20 years of venture capital investment experience in developing markets and advises several global finance institutions on developing their venture programs for emerging markets. In addition, Mr Jinsi is currently involved in founding multiple innovative investment platforms, each leveraging his unique investment background in developing markets. Until mid-2019, Mr. Jinsi spent 16 years with the International Finance Corporation (IFC) where he built the largest EM focused venture platform, in terms of footprint coverage, and headed a team of over 30 investment professionals in eight locations globally. He has held board positions in several leading technology companies in Emerging Markets and been involved in 12 investments that have gone on to be unicorns. Mr Jinsi is currently the founding Chairman of EMPEA's Venture Capital chapter. Prior to joining IFC in Washington DC, Mr. Jinsi spent nine years living and working in Asia. He was a Managing Director for one of Asia's leading venture funds. Earlier he spent four years in the Asian TMT investment banking industry providing M&A and corporate finance services to clients throughout the region. In addition, Mr Jinsi was the co-founder of South East Asia's largest independent marketing communications agency, which was successfully sold to the Omnicom Group. Mr. Jinsi started his career working as a Project Engineer/Manager at KPN, in The Hague, The Netherlands. Mr Jinsi, a Dutch national, has an MBA degree from Stanford University, which he attended as a Fulbright Scholar, and an MSc. degree in Electrical Engineering, from Delft University of Technology, The Netherlands.

Beverly Malone's tenure at the NLN has been marked by a retooling of the League's mission to reflect the core values of caring, diversity, integrity and excellence, and a focus on advancing the health of the nation and the global community. She was ranked amongst the 100 Most Influential People in Healthcare by Modern Healthcare magazine in 2010 and 2015; and in 2016 she claimed 39th place amongst leading policy-makers, activists, health care professionals and corporate figures in health care, insurance and pharmaceutical industries. She was elected to the Institute of Medicine and tapped to join the board of the Kaiser Family Foundation. She served on the Institute of Medicine's Forum on the Future of Nursing Education, contributing to IOM's groundbreaking report "The Future of Nursing: Leading Change, Advancing Health", and on the Advisory Committee on Minority Health, a federal panel established to advise the secretary of Health and Human Services. Her career has mixed policy, education, administration and clinical practice. She has worked as a surgical staff nurse, clinical nurse specialist, director of nursing and assistant administrator of nursing. In 1996, she was elected two terms president of the American Nurses Association. In 2000, she became deputy assistant secretary for health within the US Department of Health and Human Services, following 4 years of service on President Bill Clinton's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry. Prior to joining NLN, she was general secretary of the Royal College of Nursing, the UK largest professional union of nurses 2001-2007. She also served 2002-2006 as a member of the UK delegation to the World Health Assembly; the Commonwealth Nurses Federation; and the Higher Education Funding Council for England.



Emilie Marcus Executive Strategy Officer David Geffen School of Medicine UCLA



Geraldine Richmond Presidential Chair in Science Professor of Chemistry University of Oregon Emilie Marcus is the Executive Strategy Officer at the UCLA David Geffen School of Medicine where she is responsible for working with the leadership of the school and hospital system to drive alignment between medical and graduate school education, biomedical research and clinical care for optimized health outcomes. Prior to joining UCLA in 2018, Emilie spent 20 years at Cell Press with the last 7 years as CEO and the last 15 years as Editor-in-Chief of the journal Cell. Under her leadership, Cell Press expanded beyond biomedicine to become an all-science publisher, launching successful journals in chemistry and energy and the new interdisciplinary journal iScience. She also introduced industryleading innovations in peer-review, methods reporting to support reproducibility and expediting access to early versions of articles that are under consideration for publication. As Editor-in-Chief of Cell, Emilie was responsible for setting the long-term strategy for the journal and assessing cutting-edge high-impact conceptual advances in biomedical research globally. She is often looked to as a thought leader on issues facing scientific publishing including the value and robustness of the peer-review process, handling potential conflicts, scientific ethics and misconduct, supporting rigor and reproducibility, the impact of new information technologies and new publishing business models, and the uses and abuses of the impact factor as a measure of quality. Prior to joining Cell Press, Emilie had a successful research career, first at Yale University, where she received her PhD in Biology/Neuroscience in 1993, and then at the Salk Institute and University of California at San Diego. Emilie was also Editor of Neuron from 2001 to 2003.

Prof. Geraldine Richmond is the Presidential Chair in Science and Professor of Chemistry at the University of Oregon. Her research has relevance to current issues in energy production, environmental remediation and atmospheric chemistry. Her teaching activities in the classroom and beyond focus on science literacy, science policy and building a strong and diverse science and engineering workforce in the U.S. and globally. Throughout her career she has been actively involved in efforts to increase the number and success of women in science and engineering. Richmond is a member of the National Academy of Sciences, the American Academy of Arts and Sciences and is a Fellow of the American Chemical Society (ACS), the American Physical Society (APS), the Association for the Advancement of Science (AAAS) and the Association for Women in Science. In 2015 Richmond served her term as President of AAAS and is currently the Chair of the Board of AAAS. She is also currently serving as a member of the National Science Board (President Obama appointee. She is the founding and current director of COACh, a grass-roots organization formed in 1998 that has helped in the career advancement of thousands of scientists and engineers in the U.S., Asia, Africa and Latin America.

Ex-officio Board biographies



Suzanne BeDell Managing Director Education, Reference and Continuity Elsevier



Márcia Balisciano Global Head Corporate Responsibility RELX



CEO Elsevier

Suzanne BeDell joined Elsevier as Managing Director in September 2010. She has been a book publishing and information industry leader for almost 30 years focusing on the intersection of print and digital delivery for much of her career. Prior to joining Elsevier, she worked for ProQuest (a library aggregator) for 9 years where she led the development of the largest offering of aggregated books and journals for academic libraries. Before that, Suzanne was Senior Vice President of Internet Products at Thomson Healthcare and Director of Electronic Product Development for Mosby. She also held a variety of positions in McGraw-Hill's College Division, including publisher of Primis, the first electronic custom publishing system for textbooks.

Márcia Balisciano, MBE, Ph.D., leads global corporate responsibility (CR) for RELX Group. Engaging colleagues throughout the business, she works to ensure RELX Group's non-financial performance is a consistent source of competitive advantage and stakeholder confidence across key markets. She represents RELX Group on the UN Global Compact and serves on the steering group for the United Kingdom. She is a member of the Conference Board's Sustainability Council and Global Business Women Leaders Council. She recently joined the Child Rescue Alert Development Board, a partnership between the UK National Crime Agency, the charity Missing People and Groupcall. She is founding director of London museum and educational facility, Benjamin Franklin House and was previously Special Advisor to the American Chamber of Commerce. A Fellow of the Royal Society of Arts, she holds an MA in International Relations from the University of Chicago and a PhD in Economic History from the London School of Economics. She was made a Member of the British Empire (MBE) in the Queen's 2007 Birthday Honours List.

Kumsal Bayazit was appointed Chief Executive Officer of Elsevier in February 2019. She has held multiple positions with RELX Group since 2004, most recently as Regional President Europe, Middle East and Africa at Reed Exhibitions. Before joining Reed Exhibitions in 2016, Kumsal was RELX Group's Chief Strategy Officer, responsible for driving strategic initiatives, technology strategy and portfolio management. Prior to that she served in several operational and strategic roles with LexisNexis. Kumsal also chairs the Technology Forum at RELX Group and is a non-executive director at LSL Property Services plc. Prior to joining RELX Group in 2004, Kumsal spent several years at Bain & Company in their New York, Los Angeles, Johannesburg and Sydney offices. Kumsal earned an MBA from Harvard Business School and is a graduate of University of California at Berkeley where she received a Bachelor's degree in Economics with honors.



Youngsuk "YS" Chi Chairman, Elsevier Director of Corporate Affairs RELX President The Elsevier Foundation



John Danaher President Clinical Solutions Elsevier



Esra Erkal Executive Vice President Global Communications Elsevier Youngsuk 'YS' Chi is an international businessman and a leader in the media and technology industry, and currently serves Elsevier and RELX Group in several different capacities. In his primary role as head of Corporate Affairs for RELX Group, he is responsible for government affairs, corporate communications, corporate responsibility, and Asia strategy for Elsevier's parent company. As non-executive Chairman of Elsevier, he works directly with governments, Elsevier customers and in industry associations worldwide. Mr. Chi also serves as President of the International Publishers Association, a global organization that represents the interests of more than 50 publishing industry association members from countries around the world. Early in his career, as Chief Operating Officer of Ingram Book Group, Mr. Chi founded Lightning Source, the first ever print-on-demand distributor and e-book services provider. After holding several senior executive positions at Ingram Book Group's parent company, he became President and Chief Operating Officer of Random House. Mr. Chi has also earned widespread respect for his ability to work across cultures. As founding Chairman of Random House Asia, he led efforts to make Random House the first foreign trade book publisher with local language publishing in Japan and Korea. Mr. Chi has served on numerous charitable, educational and industry boards, including Princeton University, Korean American Community Foundation and McCarter Theatre. He is also a member of the Executive Committee of the boards of Association of American Publishers and International Association of Scientific, Technical & Medical Publishers.

John Danaher, Elsevier's President, Clinical Solutions, is a prominent life-long leader and expert in health and the business of health. At Elsevier, he heads the Clinical Solutions business focused on improving patient outcomes through optimizing provider performance and patient engagement. Clinical Solutions is focused on delivering industry leading products focused on improving care at every stage in the patient journey. Previously he headed Elsevier's Education business and led the transformation from a traditional publisher to an educational digital solutions provider focused on improving student outcomes. Prior to joining Elsevier, John was President of the Schools of Health Sciences and Nursing at Kaplan. He brings a great depth of experience in digital media in health care and education from his time at Kaplan, Discovery Communications, and as executive vice president of WebMD and part of the early management team. John has deep domain expertise and a successful track-record in managing health information businesses. His experience, in both government and the private sector, extends beyond the US and into global markets, including assignments and experience with Japan, Pakistan, the UK and Australia.

Esra is a senior corporate affairs executive with a career that spans healthcare, consumer and regulatory sectors. She joined Elsevier in December 2019 from Coty, the global beauty company, where she was Chief Corporate Affairs Officer. Prior to that, Esra spent over seven years at AstraZeneca as the Global Head of Communications, leading the engagement with a wide range of stakeholders in the research, healthcare and investor ecosystem, including the development of the company's community investment and sustainability strategy. Before joining AstraZeneca, Esra was an Executive Director of the Advertising Standards Authority in charge of Policy, Public Affairs and Communications, where she played a critical role in establishing internet regulation for the first time and transformed the way the watchdog works with industry to maintain responsible marketing standards. Previously, she was Head of Corporate Communications and External Affairs for the L'Oreal Group for seven years where she led the L'Oreal / UNESCO for Women in Science laureate programme. Prior to L'Oreal, Esra was Head of Corporate Affairs for Unilever. Esra is passionate about scientific progress and is a long-standing Trustee and Chairman of the British Skin Foundation, a charity dedicated to advancing research into skin cancer and skin health.

Team biographies



Ylann Schemm Director The Elsevier Foundation

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As the Elsevier Foundation's Director, Ylann Schemm drives technologyenabled partnerships to advance diversity in science, build research capacity and support global health around the world. She has been an integral part of the Foundation's growth since joining as a Program Officer in 2008. In 2019, Ylann was appointed the Vice Chair for the Executive Council of Research4Life, a UN-publisher partnership to bridge access gaps for researchers and doctors in developing countries. In addition, Ylann currently serves as Elsevier's Director of External Partnerships, building on 15 years in corporate relations and responsibility roles and focusing on key technology, gender and sustainability collaborations. Prior to joining Elsevier in 2005, Ylann held various roles in publishing and the non-profit sector, representing the European Platform for Dutch Education at the European Commission. She started her career as a writer and researcher for Time Life Books and holds an MA in Film & Television Studies from the University of Amsterdam and a BA, magna cum laude in English from Amherst College in Massachusetts. Ylann is both American and Dutch and based in Amsterdam.

Domiziana Francescon Partnerships Manager The Elsevier Foundation Elsevier Domiziana Francescon serves as the Elsevier Foundation's Program Officer and is a strong supporter of the company's Corporate Responsibility program. She also works on a number Elsevier's externally focused partnerships, especially in sustainability and women in technology spaces. Additionally, Domiziana is the Co-Chair of the Communications team of Research4Life, a UN-publisher partnership to bridge access gaps for researchers and doctors in developing countries. Domiziana obtained a master's degree in Book and Digital Media Studies at Leiden University in the Netherlands, with a specialization in Publishing Studies.

Maha Rhannam works as a coordinator for the Elsevier Foundation, supporting in that the Foundation's partnerships and activities, as well as promoting the its activities online. Maha obtained a master's degree in International Development Studies from the University of Amsterdam. Prior to that, she served as a sustainability analyst for Vigeo-Eiris, a CSR rating agency. She also has extensive experience in research, having worked as a research assistant on various projects related to education and gender-based violence in sub-Saharan Africa. She grew up in Morocco and is based in Amsterdam.

In her role as Elsevier Foundation treasurer, Maria Markova supports the funding of non-profit organizations around the world. Maria is a Finance Manager in Group Financial Planning and Analysis team at Elsevier, focusing on Health side of business. She previously worked as a Business Controller for Corporate Functions at Elsevier and as a Senior Associate at PwC. Maria acquired her Master of Business Administration (MBA) degree at Oxford University and is a Chartered Management Accountant.



Kenneth R. Thomson II Legal Council RELX Kenneth R. Thompson II was appointed as RELX Group General Counsel on October 1, 2011. In his role, he has global responsibility for the intellectual property, privacy, governance, compliance and securities law functions for RELX Group. Prior to serving in this capacity, Mr. Thompson served as the Executive Vice President and Global Chief Legal Officer for LexisNexis, an operating division of RELX Group.







Maria Markova Treasurer Elsevier

Maha Rhannam

Coordinator

Elsevier

THE ELSEVIER FOUNDATION

For more information about the Elsevier Foundation, visit elsevierfoundation.org and follow us on Twitter @ElsFoundation



In the cover picture:

A nurse in Kenya, where Amref Health Africa has trained 57,076 Community Health Workers. ©Amref