



Summer 2024

# 32nd Pumphandle Lecture 2024

"Pandemics, Climate Change and the role of Science" by Soumya Swaminathan



Tues 22nd October 5:30pm London time John Snow Lecture Theatre, LSHTM

Dr Soumya Swaminathan served as Chief Scientist of the World Health Organization from 2017 to 2023, after two years as Deputy Director of WHO, having previously been Director General of the Indian Council of Medical Research. Prior to that she had been coordinator of the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases in Geneva and Director of National Institute for Research in Tuberculosis (NIRT). While at WHO she was instrumental in setting up the COVAX initiative to provide COVID vaccines to low and middle countries.

Dr. Swaminathan received her academic training in India, the UK, and the USA, leading to a career in clinical care and research, with primary interests in tuberculosis and HIV. She is a Fellow of the US National Academy of Medicine, the Academy of Medical Sciences (UK), and all major science academies in India. She holds honorary doctorates from many institutions, including the Karolinska Institute, and the London School of Tropical Medicine and Hygiene. She is currently the Chairperson at M S Swaminathan Research Foundation, Chennai, as well as Principal Advisor to Ministry of Health and Family Welfare, Government of India.

The lecture will begin at 5:30pm and close at 7pm. This will be followed by the Society's Annual General Meeting (AGM) from 7pm to 7:30pm. All Society members are encouraged to attend the AGM, either in person or remotely. The lecture will be recorded and placed on the Society's website.

After the AGM all members are warmly invited to repair to the John Snow public house in Broadwick Street, Soho, a short walk from LSHTM.

Those unable to attend in person will be able to attend the lecture remotely, and to ask questions, using the following zoom link: <a href="https://lshtm.zoom.us/j/98182429488">https://lshtm.zoom.us/j/98182429488</a>

# 31st Pumphandle lecture 2023

"Global Health Equity and the Role of Trade" by Dr Ngozi Okonjo Iweala

The 31st annual Pumphandle lecture was delivered on Tuesday 3rd October, 2023 by Dr Ngozi Okonjo Iweala, Director-General of the World Trade Association, former Chair of the Board of GAVI (the Vaccine Alliance) one of key instigators of the COVAX initiative etc. The lecture was delivered both live, to a packed audience in the John Snow Lecture Theatre, and remotely to a large audience worldwide.

The lecture provided a detailed account of the role of trade and globalisation in both the distribution of and response to disease around the world. Infectious disease has followed trade routes since time immemorial – witness the spread of black death globally, of smallpox to the new world, of cholera to Europe and of course HIV and COVID in recent years.... But trade has also been essential for the response to these problems, raising complicated issues related to where tools are developed, where they are needed, and related to the economic drivers behind their production and use. She described the genesis and impact of the international Trade-Related aspects of Intellectual Property rights (TRIPS) agreement both in stimulating research and in leading to global inequities, and of the national and international legislation which ultimately allowed the global distribution of anti-retroviral medications in particular in Africa where they were most needed to combat the HIV pandemic.



Continued on next page >

A similar situation arose with the development of vaccines against COVID, as vaccine distribution was too often driven by economics and national politics rather than public health need. She acknowledged the need for difficult compromises between civil society and industry, and argued passionately for de-concentration and diversification of the pharmaceutical industry not only as part of the preparation for the next global pandemic but as a means of reducing inequities in the world. She closed by commenting that John Snow had only to convince the local council to remove the handle of the pump – but we must convince all national governments and global institutions.

Dr Iweala answered difficult questions from the live and remote audiences, impressively arguing the need for compromise in managing conflicting demands faced by international institutions. Her articulate and passionate responses received repeated resounding applause.

We call members' attention to a commentary on the lecture by Richard Horton, Editor of The Lancet, entitled "The illusion of compromise", in which he praised the lecture but challenged further the nature of the difficult compromises reached between powerful industries and nations on the one hand and the poor populations of the world who most need the technical and financial resources required to fight pandemic disease (Lancet 2024;402:1312).

The vote of thanks was delivered by Dr Dilys Morgan, and expressed everyone's appreciation for an inspirational lecture. Tradition was followed, and Dr Iweala was then invited to remove the handle from the Society's pump.

A recording of the lecture is available on the Society's website: <a href="https://www.johnsnowsociety.org">www.johnsnowsociety.org</a>

# A message from the Co-Chairs of the Society

This year sees a change of co-Chair for the society; below are brief messages from the departing, remaining and incoming co-Chairs.

From Jimmy Whitworth: After more than 30 years association with the John Snow Society, as I am one of the Founder Members, I am stepping down as co-Chair this September, but will remain on the Steering Committee. I have been a co-Chair for 11 years, serving firstly with Oliver Cumming and then with James Hargreaves. It has been a pleasure to work with James and Oliver and indeed with the rest of the Steering Committee and to see the Society flourish and evolve over the years. I have some great memories of working with the Society, highlights include some memorable Pumphandle Lectures and the raucous AGMs in the John Snow pub, before sense sadly prevailed and we relocated them to the John Snow lecture theatre after the Pumphandle Lectures.

I also remember with fondness the Uncomfortably Numb concert we held in Hackney in 2018 with Katie Steels as DJ and the performance of The Hare and Hoofe. As I step down as co-chair I feel confident that now is the time for the Founder members to step aside and leave the running of the Society in the hands of the next generation. Time and circumstances change and the Society needs to adapt so it that can flourish and remain relevant, enjoyable and a society that many public health, water engineering, history and assorted afficionados around the world continue to wish to join.

**From James Hargreaves:** Hopeful that my application to remain a member of the J3SC Committee is passed at the 2024 AGM, I will also continue in the role of co-Chair of the Society. I'd like to thank Jimmy for being a wonderful colleague these past few years, and am very much looking forward to working with Charlie and the rest of the committee.

Jimmy and I would like to provide a brief update on the "six point action plan" for the Society that we shared with you in our update in 2023. Given that operating the society relies on volunteerism alone, we remain committed to minimizing administrative work. As planned, we changed the timing during the year of the J3SC meeting, which we held in December 2023 (and will do so again

in November 2024). At this, we agreed an annual rota for mug packing and distribution among the Steering Committee "J3SC" members, and this has worked well in lessening the burden on Deborah from the LSHTM EPH Faculty. We have moved to a print at home / optional membership card system in the same spirit of efficiency, and can report that only a very few new members now request a membership card be sent in the post. These are all positive developments.

We should make members aware that there remain important issues to resolve to secure the long term stability of the administration of the society, and Charlie and I will need to see doing so as a big priority in the coming year. We retain an ambition to more fully automate the process of joining the society online. Further, the long term administration of the society membership database remains in need of a secure home, and discussions continue.

The Society continues to have an excellent, interesting and well-read feed on "X" and on its website, with thanks to Seyi, Lauren and Patrick for their work this year on this. This is a good place to learn interesting things about John Snow as well as stay in touch with the Society's activities. Finally, on other matters, we can proudly report that we have moved appropriately slowly. Plans for further academic and social events remain in the planning stages, as does developing further John Snow Society memorabilia. Watch this space.

From Charlotte Flynn: I am delighted and honoured to be stepping into the role of Co-Chair of the John Snow Society. I have been a member of the Society since 2004 and a member of the Steering Committee since 2019. My maiden 54 word statement included a promise to bring equality to the Steering Committee due to the low prevalence of women, and I am pleased to say that the Committee is now 40% female! I'm looking forward to working with James to lead the Society and continuing to celebrate the life and work of John Snow.

# Chapters

According to our Constitution (<a href="https://johnsnowsociety.org/constitution/">https://johnsnowsociety.org/constitution/</a>), we have not given detailed guidance on Chapter formation, but two statements are particularly relevant: "Eligibility to join the Society is defined as wishing to celebrate the memory of John Snow." And: "Members of the Society are encouraged to establish informal groups, chapters (divisions) and meetings in their own countries and localities. Local groups may levy an additional fee to finance their local activities." Another principle enshrined in the Society's Constitution is that: "A John Snow Society meeting can be declared wherever and whenever at least two Members of the Society are present. A photographic record of meetings and events may be sent to the Secretary for inclusion in the Society's archives."

We are aware of at least 14 "chapters" that have been organised in various places over the years, including in Kampala Uganda, Maputo Mozambique, Norway, Iceland, Finland, Auckland New Zealand, Heidelberg (now Berlin) Germany, Bethesda Maryland, San Francisco California, Hanover New Hampshire, Texas and South Carolina in the USA, and Sydney and Melbourne in Australia. The society would welcome hearing about the formation of more chapters and will gladly receive news from chapters for inclusion in this Broadsheet newsletter.



## Nordic Chapter

Asle Aasen, Secretary General

#### History of the Nordic Chapter



Annual conference 2009, from left: Asle Aasen, Christen Raestad, Truls Krogh.

The Norwegian Association of Civil Engineers (NIF) organised a major conference in Kristiansund in 1998, which included participation of several National Committees of the International Water Association. During the conference dinner, Dr Ros Stanwell Smith (one of the Society's founder members) told us about the John Snow Society on a bad telephone line from London. Christen Ræstad took the initiative to establish the John Snow Society's Nordic Chapter and Christen was our first General Secretary.

The Pumphandle Award has been a pump handle commemorating John Snow's removal of the pump handle in 1854, as well as a diploma and a plaque. The Nordic countries have appointed jury members to find good candidates for John Snow Society Nordic Chapters Pumphandle Award. In 2008, Asle Aasen took over as General Secretary. After 26 years the jury have awarded 20 colleagues for an extraordinary effort to promote safe drinking water.

This is a list of former Pumphandle Award winners:

- 1998 Henrik Rydberg Gothenburg VA-verk, Sweden
- 1999 Jørgen Beck
   Sjælsøe Vandværk / Dansk Vand, Denmark
- 2000 Thor Axel Stenstrøm Smitskyddsinstitutet, Sweden
- 2001 Kari Ormerod National Institute of Public Health, Norway

- 2002 Maria J. Gunnarsdottir Samorka, Iceland
- 2003 Toril Hofshagen NORVAR, Norway
- 2004 Leena Hiisvirta Ministry of Health, Finland
- 2005 Truls Krogh
   National Institute of Public Health, Norway
- 2006 Freysteinn Sigurdsson Orkustofnun, Iceland
- 2007 Water supply students v/NTNU Norway
- 2008 Olof Bergstedt Gothenburg Vatten, Sweden
- 2009 Christen Ræstad Norway
- 2010 Christina Nordensten Norwegian Food Agency, Sweden
- 2011 Ivar D. Kalland Bergen municipality, Norway
- 2012 Bjørnar Eikebrokk SINTEF, Norway
- 2014 Erik Arvin Aarhus University, Denmark
- 2016 Illka Tapani Miettinen
   National Institute for Health and Welfare
- 2018 Hallvard Ødegård NTNU, Norway
- 2020 Finn Mollerup VandCenter Syd, Denmark
- 2022 Anders Buur Bækgård DANVA, Denmark

Now it is time to let younger forces take over the baton, and we are extremely happy that Svein Forberg Liane (Norway), Dorte Skjærm (Denmark) and Riku Vahala (Finland) have agreed to carry on the tradition. It is important to be able to celebrate and honour colleagues who have made an extraordinary effort for water and health.



## Maputo Mozambique / Melbourne Australia Chapter

Mohsin Sidat, Julie Cliff / James Black

Transdisciplinary Conference for the Elimination of Cholera, Maputo, Mozambique (29th-30th July, 2024)



The Director General of the INS helping Cabo Delgado Province with vaccination against cholera.

This conference (<a href="https://eventos.ins.gov.mz">https://eventos.ins.gov.mz</a>) was held against a backdrop of continued cholera transmission in Mozambique, and increasing collaboration across disciplines for its control. The national health research institute (INS) of Mozambique and Africa CDC collaborated in its organization.

From the 1st October 2023, the official start date of a new cholera outbreak, until the 31st of March 2024, Mozambique registered 14,712 cases of cholera. The case fatality rate was 0.2%. Mozambique continued to vaccinate against cholera. Between 8th and 12th January 2024, more than two million people over one year of age were vaccinated.

Increasing collaboration across disciplines resulted in this conference whose aim was to draw on the lessons learned on cholera control and elimination in recent years. Themes included; surveillance, laboratory diagnosis, WASH (water, sanitation and hygiene), case management, community engagement, resource mobilisation, climate change, humanitarian crises, vaccination, and the national plan to control and eliminate cholera.

In the session on water, sanitation and hygiene, the moderator was Lenay Bason of UNICEF and speakers included Edgar Jone: Solidar-Swiss Mozambique, Manuel Sitoi de Abreu: National directorate for Water Supply and Sanitation, Jean Christophe: UNICEF, Maimuna Luis: of Ministry of Health and Daniele Lantagne, environmental engineer at Tufts University, USA.

One of the presentations in this session was on the WASH costing tool, a method to develop an operational plan for WASH in hot spots for cholera. Another was on one health and one future whose aim was to integrate human and animal health in the combat of diarrheal diseases.

This first conference brought together local, regional and international experts to share their knowledge on cholera elimination and control. John Snow Society members from Mozambique and Melbourne also attended.



## **Texas Chapter**

Martha Gibson

### Water sustainability

Water sustainability projects are always on the minds of Texans, especially when it comes to the business of agriculture. Agriculture is the number 1 user of water in most of the United States and certainly in Texas. Daniel Nix, a member of the Texas chapter, recently became the executive director/ CEO of the Texas American Water Works Association (AWWA), a non-profit organization. As part of this group, and in conjunction with Texas Tech University, the Agriculture Water Sustainability Summit (AWSS) is being presented August 7-9, 2024, in Lubbock, Texas. This summit will not only look at local producers of agriculture and their need for water but will be of interest to municipal water entities and global awareness. Topics for the summit will include outlook on climate change, surface water vs. ground water sources sustainability and the use of satellite imaging, aquifer storage and recovery, and the desalination efforts to make brackish water a sustainable water source. The summit will also address ways to help conserve water to make it more viable for the future. Some of the guest speakers will come from NASA/ JPL to discuss satellite missions, using the Surface Water & Ocean Topography (SWOT) and Gravity Recovery & Climate

Experiment (GRACE) efforts. In these presentations, data will be provided to address water depletions and how to better plan for future needs. Daniel has received many awards throughout his years as a water conservationist. He was recently awarded the Margie J. Reese Innovation Award for beautifying the wastewater lift stations in Texas. These wastewater lift stations are pumping stations that transfer wastewater

AUGUST 7-9TH, 2024

Water sustainability summit conference in Texas.

from a lower level to a higher level. This saves money in excavation cost by not having to dig additional sewer pipes. His efforts have provided on the job training for wastewater collections professionals. Daniel has inspired us all in the quest for clean, sustainable water sources. He reminds us that it is all of our responsibility.



## Sydney, Australia Chapter

Stephen Leeder (Editor of the IJE, our Sister Journal!)

#### **COVID**

While the estimates vary greatly, it is evident that well more than ten million people have died worldwide from COVID-19. In Australia, with a population of 26 million, 44,000 persons are reported to have died, with 12 million cases reported. The country fared well in the first two years of the pandemic, but not the best thereafter.

During the pandemic there was a diversity of response in Australia creating confusion over regulations among the six states and two territories. In response, a national cabinet of unity of all state and territory first ministers was formed, with the prime minister, Scott Morrison, in the chair and the national chief medical officer in attendance. Social isolation, border control, immunisation schedules and access, and treatment were the major topics of debate. Income support for those displaced by COVID controls was negotiated. Epidemiology was a frequent agenda item – both data and modelling – although politics and regulation were uppermost.

The multitalented and politically adroit Dr John Snow would have been a valuable consultant: his experience with cholera and with anaesthetics (of which he was an English pioneer), would have served him well in advising on COVID, covering both its public health and clinical dimensions.

Might we do better next time? A federal election commitment in 2022 to form a national centre for disease control led to action inside the federal health department, limited largely because of prevailing economic limitations. Also, the interests of the states and territories would not necessarily be fully served by a national agency. Previous attempts to create a CDC have grounded largely on this reef of grief. New approaches to surveillance built on the efficiency and effectiveness of advancing information technology may accelerate developments.



#### Vaping

Australia has had a strong record in tobacco control and from the start, vaping has excited epidemiological interest and political concern. Proposals to limit vaping by law, floated by the Labor federal government have provoked questions about the virtues and limitations of prohibition and fiscal incentives (tax). Epidemiologists are generally clear-eyed about vaping as an intrinsically toxic prelude to smoking, but a few divergent views sound an uncertain bell to puzzle policy makers. The politics and influence of big (tobacco) business are omnipresent, a dense cloud of exhaled vapour.

There is a clear deficit of epidemiological knowledge: the long-term effects of vaping will not be known for years. So analogies are drawn between the health consequences and toxicology of cigarettes and vapes. The precautionary principle is invoked.

In 2022-2223 20% of Australians aged 14 + said they had used e-cigarettes at least once: 7% of people aged 15-17 years in 2022 reported using e-cigarettes currently. The Australian Bureau of Statistics reported that 10% of adults (18+) were daily smokers in 2022, down from 22% in 2001. Vaping has muddied the waters of tobacco control, presumably to the delight of the tobacco companies. Fortunately all levels of government appear aware of the health challenges of vaping, although restricted politically about what actions they may take.

We should not grumble too loudly: Australia is a privileged nation: it has great health and a strong epidemiological capacity.

# **Special reports:**

### The Society on X/Twitter

We thank our nearly 3000 X/Twitter followers for engaging with us over the past year. One of the main highlights of 2023-2024 was our map competition, in which we challenged our community to re-create Dr Snow's iconic 1854 map of Soho London cholera cases using 21st century techniques. We received some absolutely stellar entries from around the globe. Congratulations to the 1st place winner, Rebecca Pedrick Case (Swansea University). The winning and commended entries can be found on our website: https:// johnsnowsociety.org/2023/10/20/winners-of-the-john-snow-210th-birthday-map-competition-announced/. All entrants received John Snow Society related merchandise. This was guite an undertaking given the international spread of entries. A special mention goes to Hemed Lungo, a GIS specialist from Tanzania who patiently went to his local post office regularly for weeks until his JSS package finally arrived in Dar-es Salaam in February 2024, months after it was sent.

Snow's seminal work on cholera and epidemiological methods sometimes overshadows his important contributions to the development of medical anaesthesia. We ran a campaign over a few weeks showcasing his pioneering work and the work of others in this field, including Dr Hua Tuo (lived 140-208), an Eastern Han dynasty physician who is credited in the earliest records of the use of anaesthesia in China, the chemist Humphry Davy who first wrote about the potential anaesthetic effects of nitrous oxide, and dentist Horace Wells who demonstrated its use. We should also mention James Robinson, a dentist who lived on 14 Gower Street, very near LSHTM, who was the first to use ether anaesthesia in the UK, and who introduced John Snow to the subject. We discovered some surprisingly great art related to the history of anaesthesia, including Dr Eoin Kelleher's modern cartoon of Dr Snow's administering chloroform to Queen Victoria, and an 1853 engraving by Utagawa Kuniyoshi of Dr Tuo administering anaesthesia to a warlord – both of which we included in tweets. You can find originals of the pictures here (Dr Kelleher): https://www.rcoa.ac.uk/ about-college/heritage/history-anaesthesia and here (Kuniyoshi): https://www.britishmuseum.org/collection/ object/A 2008-3037-20007.

This year we marked Dr Snow's 15th March birthday in a tweet of the replica pump in his hometown in York, England. This was one of our most popular tweets – and no photoshopping required. For the first time we also marked his death on the 16th June, with a visit to his gravestone in the very elegant (and peaceful) Brompton Cemetery in Kensington, London. John Snow died at the age of 45 after suffering a stroke whilst writing his monograph 'On Chloroform and other Anaesthetics'.

We appreciated your kind messages and engagement with these and other posts over the past year. As usual please do get in touch if you have any John Snow related thoughts,



Students on "iconic" visit to the pump.

discoveries or feedback, as we enjoy hearing from the online community. Upcoming on our X/Twitter page is our first external 'takeover'; it was a pleasure to host three bright and enthusiastic year 10 students from St Paul's Way School in London for an afternoon, discussing Dr Snow and making an "iconic" (their word) pilgrimage to the replica pump in Soho. Thank you to Isabel Byrne (LSHTM) and Kawtar El Ouaraini (St Paul's Way) for organizing this.

-JSS Web and Social Media Team

Twitter address: <u>@JohnSnowSociety</u> (note the Society X/Twitter page may be temporarily down over the summer as we solve a minor technical issue).

# **Society Matters:**

### Call for nominations to the John Snow Society Steering Committee

The John Snow Society Steering Committee ("J3SC") last met on 07 December 2023, continuing its work to manage the Society and make it sustainable into the future. The current committee comprises: James Hargreaves and Jimmy Whitworth (Co-Chairs), Paul Fine and Charlotte Flynn (co-Secretaries), Marta Tufet and Sebastian Funk (co-Treasurers), Seyi Soremekun and Patrick Nguipdop-Djomo (Social Media and Website Officers). Stefan Flasche, Lauren D'Mello-Guyett, Pedro Hallal, Alex Mold, Dilys Morgan, George Rutherford and John Watson. Five Committee members reach the end of their 3-year terms this year, and at least two are stepping down. According to our Constitution, the J3SC can hold up to 12 members, in addition

to founding members (JWh, DM, PF) and thus there are at least two places open this year.

We invite applications from members in good standing (with intact mug and membership card). Following our constitution (https://johnsnowsociety.org/constitution/) a valid application should be received by the Society by first September, and will consist of "a statement of 54 words describing commitment to - and vision for - the Society. Applications will be considered by the J3SC for ratification by Members present at the AGM, unless it is necessary to conduct an email poll if suitable applicants exceed vacancies."

### **Exclusive to JSS Members**

The 13th (30th anniversary) edition mugs are still available. Free to new members, additional mugs can be purchased if you wish to add to your collection or as insurance policy against breakage (which, according to our constitution, deactivates your membership).



Members can purchase up to 2 additional mugs. The elegant pump-design silk ties (each has a single pump without handle) and the illustrated book by Dr Spence Galbraith (John Snow: his early years) are also available for purchase. See website for details.

### **JSS Earrings: Limited Edition**

A limited supply of solid silver earrings depicting the Broad Street pump (with and without the handle) are now available for members only.

Cost £65. Please email

**johnsnowsociety@lshtm.ac.uk** for orders and enquiries.



## Reminder to Members –

### update your email address

Our cumulative membership total, to whom we will send notice of this Broadsheet, now exceeds 4000. Unfortunately, more than 25 % of emails bounce. We suspect that a few members may have crossed the great divide, but we also suspect that some have merely changed their email addresses. Or some email addresses may have been illegible or otherwise in error from the start.... So – if you are/have been a member, but do not receive one email a year from us – please let us know your appropriate (personal generally better than job-related) email. Or if you know of a member who has not heard from us – encourage them to contact us and update their email address.

## Keeping in touch

The John Snow Society contacts all members once per year, via email, with news about the Society and details of the annual Pumphandle Lecture

For more interactive participation in the Society, please join the over 2,000 like-minded and follow us on **X/Twitter** (@JohnSnowSociety)





Contact details for the John Snow Society

The John Snow Society, c/o LSHTM, Faculty of Epidemiology and Population Health London School of Hygiene and Tropical Medicine Keppel Street, London WC1E 7HT.

Tel: 44 (0)207 927 2482. Email: Johnsnowsociety@lshtm.ac.uk www.johnsnowsociety.org

