



BroadSheet

The newsletter of the John Snow Society

Summer 2019

27th Pumphandle Lecture 2019

“Promoting medical science in an age of scepticism” by Eliza Manningham-Buller

Wed 4 September – 5:30 pm

John Snow Lecture Theatre,
London School of Hygiene & Tropical Medicine

Book online via

pumphandle2019.eventbrite.co.uk

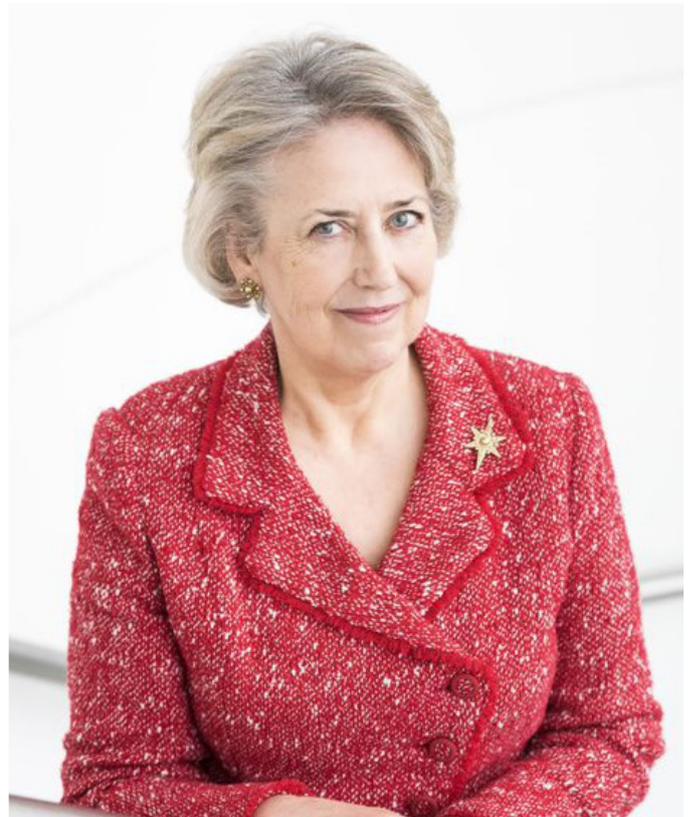
Eliza Manningham-Buller has been Chair of The Wellcome Trust since 2015, having served as a Governor since 2008. The Wellcome Trust is a global charity which exists to improve health for everyone by helping great ideas to thrive. She leads a Board of Governors drawn from the worlds of science, business and public life.

In 2015, Eliza became the Co-President of Chatham House, Royal Institute of International Affairs. She served on the Council of Imperial College from 2009 and was Chair of Council from 2011 to 2015.

She was appointed an independent, crossbench peer in the House of Lords in 2008, and has been a member of the Privileges and Conduct Committee, the Joint Committee on the National Security Strategy, and the Science and Technology Committee.

Previously, Eliza had a career with MI5 for more than 30 years, including a posting to the British Embassy in Washington. She served as Director General from 2002 to 2007 and before that was Deputy Director General, with responsibility for operations.

Eliza was educated at Benenden School and Lady Margaret Hall, Oxford. She taught for three years before joining MI5 in 1974.



The lecture will be followed by the Society's Annual General Meeting, held in the John Snow Public House (at the corner of Broadwick and Lexington Streets, in Soho) to which all are warmly invited.



26th Pumphandle lecture and AGM 2018

“The Cost of Fear: humanitarian crises in the age of anxiety” by Joanne Liu

The 26th Annual Pumphandle Lecture was delivered on Thursday 6th September 2018, by Dr Joanne Liu, International President of Médecins Sans Frontiers / Doctors without Borders.

Dr Liu's presentation described, and then drew lessons from, three recent health crises in which MSF has been prominently involved, and which have captured global attention: Ebola, the Kunduz attack, and the forced displacement crisis. She emphasised that each of these crises has involved fear at several levels, and that fear complicates motives and detracts from humanitarian ideals crucial to an appropriate health response and to society at large. Her accounts reflected her own personal involvement in each of these issues, and included moving photographic images.

The West African Ebola epidemic, which began in 2014, caught the world by surprise, being so much larger than any of the previous outbreaks of the disease. MSF set up treatment centres based upon its previous experience but these were soon overwhelmed by numbers – she described a treatment centre which could only open its doors for 30 minutes a day, just long enough to dispose of the bodies of those who died overnight and refill the beds. She spoke of the difficult messages early in the response – telling people that there was this disease, with case fatality rate above fifty percent, for which there was no treatment – of course people were afraid to go to a hospital just to die... and so they remained at home infecting others. The world woke up when a few cases were repatriated to western countries - and it soon became seen as a threat to global security. That led to the unusual call for infrastructure assistance from military agencies. Though there was no military intervention, just the fact that MSF asked for military assets was evidence that something was deeply wrong. Among the lessons were the need to streamline research and development under epidemic conditions. Dr Liu also reflected on the irony that Ebola attracted such a level of attention, though tuberculosis, which kills so many more, is not treated with urgency by the global community.

She then turned to describe MSF involvement in Afghanistan, in particular a large trauma hospital built in Kunduz, in the north of the country. It served people of all political persuasions, and had hosted 15,000 surgical operations and 17,000 emergency visits since its construction in 2011. The hospital was bombed and largely destroyed by airstrikes by so-called coalition forces on the night of 3rd October 2015. Though the Kunduz bombing was declared to have been a mistake, Dr Liu drew a parallel with the policy of President Assad in Syria to target health facilities in areas opposing his government, declaring it a crime to bring health care to an opposing side. This is a perversion which must be challenged at every level: the doctor of your enemy is not your enemy.

Finally, she discussed the widespread crisis of forced displacement and refugees – some 68 million people in today's world, including half the population of Syria. She described camps for displaced persons in Lesbos and in Libya as among the most shocking scenes she had witnessed in the world... associated with the desperate efforts of people to escape dreadful circumstances in their home countries, leading to every sort of abuse and too often to death by drowning in the Mediterranean Sea. This reflects fear in both directions – the understandable fear of people to remain in their homes ... met by the paranoid fear of the world to which they wish flee. The outcome is a disaster for humanity.



These descriptions amply illustrated the theme in the lecture's title: the cost of fear. Dr Liu closed by encouraging epidemiologists in the audience to collect “damning data”, to illustrate and expose the circumstances such as she had described in order to change opinions and policies.

The vote of thanks was proposed by Professor Jimmy Whitworth, and Dr Liu was invited to remove the handle of the pump to close the proceedings. Society Members then adjourned to the John Snow Pub in Soho for the Annual General Meeting of the Society. The soundtrack of the lecture is available on our website: johnsnowsociety.org



Chapters

According to our Constitution (<http://www.johnsnowsociety.org/the-society/constitution.html>) 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."

We are aware of at least 11 chapters that have been organised in various places over the years, including in Kampala Uganda, Norway, Iceland, Finland, Auckland New Zealand, Heidelberg Germany,

Bethesda Maryland, San Francisco California, Texas, South Carolina and now Hanover New Hampshire in the USA, and Sydney Australia - but we have not always been kept informed of their activities or status.

It is useful in this context to acknowledge another principle enshrined in the Society's Constitution: "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."

This year brings a few contributions from honoured Chapters 'round the world.

Texas

Marty Gibson and Betty Bowles

Texas Chapter Member Received National Award

A member of the Texas Chapter of the John Snow Society, Daniel Nix, the Public Works Utilities Operations Manager of the city of Wichita Falls, TX, along with Wichita Falls Public Works Director Russell Schreiber, recently received the Performance and Innovation in the SRF (State Revolving Fund) Creating Environmental Success (PISCES) award from the United States Environmental Protection Agency (EPA).

The award was for their innovative and forward thinking work during an extreme drought. EPA's PISCES Award is a national honor that signifies a remarkable achievement for their work in developing a process to directly reuse waste water and return it to the water delivery system.



Left: Daniel Nix (Photo credit Times Record News)

Looking to the future, after the drought, the direct potable reuse system has been transformed into an indirect reuse system by returning it to the lake blending it with the lake water for reuse.

We also attached a picture of our public health students from the Midwestern State University Study Abroad Program taking Blue Badge guide Guy Pickford's "John Snow Walk" and toasting John Snow with clean water at the Broad Street Pump.



Above: Public health students of the MSU Study Abroad programme toast John Snow with water



A kiwi wonders what John Snow would think about New Zealand

If John Snow visited New Zealand today he might be struck by a number of things, such as our ethnic diversity – and the high prevalence of obesity. And he might be surprised to find we have women in all the leading roles – the Prime Minister (Jacinda Ardern), the Governor General (Dame Patsy Reddy) and Chief Justice (Dame Helen Winkelmann). He would also be interested in the complex challenges of contemporary public health, as identified in the latest annual letter from our Health Minister.

Achieving equity – especially for Māori (the indigenous peoples of New Zealand) is a key focus. Priority areas include mental health and addictions and child health. The recent “wellbeing budget” delivered a welcome extra \$1.9 billion for mental health services. A smoke free New Zealand by 2025 is still a target – that will not be achieved but we are doing well with the latest health survey showing only 3.6% of 15- 17year olds currently smoking. Smoking in a car which has children in it has just been banned by the government. The ironic exception is – unless you are living in the car, when it is ok to smoke while the kids are present – living in cars is all too common due to the housing crisis in Auckland! But while we are looking at eliminating tobacco it looks like we are to have a referendum to legalise cannabis. Many are already looking at how to grow and supply marijuana for the not inconsiderable likely demand. Seems we want to make smoking tobacco a thing of the past to be replaced with smoking dope?

As for environmental sustainability, the focus is on climate change. New Zealand is unusual in that almost all our power comes from renewables, mainly hydro-electricity. But we have three major challenges – cars, planes and cows. Cars are ubiquitous as our rail system is non-existent. We have 4 million cars for 5 million people and Auckland increases the number of cars on its roads each year by 40,000 additional vehicles. Secondly we have air travel – not only is it hard to get to New Zealand from the rest of the world except by air, but within New Zealand without rapid rail we all fly to meetings – to the extent that so many people are accruing air mile points the business class lounges cannot cope. Interestingly, everyone is silent on the impact of air travel on the environment – we happily promote our clean, green country (think Hobbiton) so we can attract more and more visitors to our shores to admire the stunning landscape – like the southern glaciers which are rapidly disappearing! Perhaps we should be cutting back on tourism and air travel to save the planet? The third and most controversial contribution is our dairy industry. New Zealand has a love-hate relationship with cows (I confess to a bias here as we have a small farm and my wife’s cows are very dear to her heart). Cows are the source of our biggest export earner – while we produce 2% of the world’s dairy produce, we are responsible for 50% of the world’s dairy exports. Most of our milk powder and products now go to China – a market that is not going to get smaller. Unfortunately cows burp and fart producing CO₂ and methane, and they also pee causing nitrate leaching into our water supplies and then there are the tons of shit to deal with. John Snow would be right at home dealing with these problems! Where will this all go? Well, currently the Government has a target to plant a billion trees a year – and is offering carbon credits to investors – who are buying up pastoral farms and planting them in trees. Is there a target for less cows? Secretly I think there may be, but no one is saying – not even the leader of the Greens. But the reduction in pastoral land will either mean

less cows or more intensive operations. So while we focus the rhetoric on climate change against dairying (mention climate change on the news and a picture of a cow comes up, not an Auckland traffic jam, or another Airbus arriving at the airport) but we actually do nothing about it in case we hit our most important export commodity.

Then there are the issues of healthy eating and healthy weight. Healthy eating is about more fruit and vegetables – and less red meat and dairy. Seems rather un-patriotic really! And of course most of the healthy foods are produced elsewhere – our grain, rice and much of our fruit and vegetables are imported. We have reduced red meat consumption drastically so that now the average Kiwi actually only eats 8 kg of beef and 1 kg of lamb per year compared to 40kg of chicken and 18 kg of pork. Crazy! We export 90% of our red meat which we don’t want (or can’t afford) to eat and import most of our pork (from countries like Canada, Spain and Finland). Our day old chicks are from eggs flown in from the States and fed imported feeds but at least they grow up in a New Zealand shed to be served at KFC or as chicken McNuggets. So we have a way to go on healthy eating and are likely to remain in the top tier of the World’s most obese people for a few more years yet.

The Minister’s last challenge was on drinking water, and a planned system wide reform of the regulatory environment. This follows a classic epidemic in Havelock North (named after someone who would have been known to John Snow – Henry Havelock 1815-1857 of Indian Mutiny fame). In 2016 a contaminated town water supply infected 5500 people and caused 4 deaths – overwhelming the local hospital services. It turned out to be a *Campylobacter* outbreak after a heavy rain episode caused the aquifer to be contaminated by sheep faeces. In my health board we have over 70 small water suppliers almost any one of which could be the next Havelock North. While the Minister rightly is worried by the state of our drinking water, it is the New Zealand sewage system that is the sorriest story. Nineteen of Auckland beaches are regularly closed because of contaminated beaches, Gisborne and Wellington surfers regularly are dodging number twos because of over flows of sewage into the storm water systems or deliberate sewage outflows to the sea. Just last week the beautiful lake Taupo had a closure notice from the local Māori tribe after a sewage main burst leaking raw effluent into the lake. If that had been a dairy farmer they would have been in court and fined large sums – but a council just has to say sorry – until the next time. John Snow would have been quite at home here with lots to do and of course lots of politics.



Ross Lawrenson is Professor of Population Health at the University of Waikato, Population Health Advisor to the Waikato District Health Board, part time farmer, and a John Snow enthusiast.



A new Chapter – and a new pump statue!

Class gifts at The Dartmouth Institute for Health Policy and Clinical Practice (TDI) of Dartmouth's Geisel Medical School are legacies meant to benefit future classes. As a symbol of TDI's role in shaping the future of public health, the online MPH class of 2019 is donating a replica statue of the Broad Street Pump, to be placed on the school's campus.

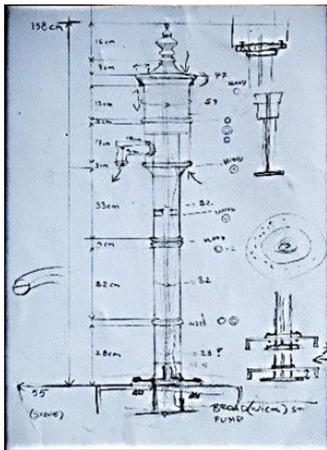
The idea arose in discussions with the entire class, and investigated by fellow class officers (Jordan Fraser, Dawn Zeiger, Lamar Polk, and Joe Belisle), who contacted the Society about dimensions of the pump recently reinstated outside the John Snow Pub (cf Broadsheet 2018). The class officers then worked with two New England based undergraduate students and a regional foundry to develop the project.

After hearing of the plan from one of his professors, Henri Bizindavyi (an architecture student at the University of Maine at Augusta) contacted the MPH class officers with an offer to help. He created an electronic 3D model using the attached sketch image that the class officers found on line.

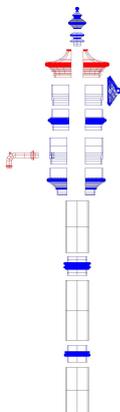
While Henri worked on the model, the MPH class was hard at work raising donations from classmates and faculty on campus to complete the project. Events such as a silent auction held at Dartmouth College and fundraising drives brought out enthusiastic support.

Seamus Hall, a studio arts & architecture - economics major at Dartmouth College picked up where Henri left off; adding segments to the model, to allow it to be printed. He developed a 3d printing of the top portion of the model, and used PVC piping to create the lower stem. Once the stem was attached, Seamus added a finishing layer and painted the 3d model black as requested by the class, in order for it to be shown at class day!

Following on from this, the final pump replica is being cast in bronze at Green Foundry in Maine. It will then be fitted to a granite base adorned with a commemorative plaque, and placed in a connecting hall between the MPH and Medical School buildings on Campus in Hanover, New Hampshire (estimated August 2019). Upon delivering the replica to its final resting place, the MPH class plan to give yet another gift to Dartmouth by officially inaugurating the Hanover chapter of this esteemed society.



Above: Sketch
Below left: Blueprint
Below right: 3D model



Above: MPH students Stephen Schwartz, Lissa Sirois, Alexandra Fry, Brittany Comunale, and Will Erickson by the pump model before it went to the foundry

Mass cholera vaccination post-cyclone in Mozambique – a removal of the pumphandle?

Two devastating cyclones hit Mozambique earlier this year, creating ideal conditions for cholera epidemics in the affected provinces. With support from donors, the Ministry of Health acted quickly to carry out mass cholera vaccination campaigns. The whole population over one year of age in affected areas was targeted.

In Sofala Province, in the first round, lasting from 3rd to 9th April, a total of 849,478 doses were administered. The estimated coverage was 97%. In Cabo Delgado Province, 253,851 doses were administered in the first round, an estimated coverage of 92%.

The cyclone had hit on 14th March, 2019 and a cholera epidemic was declared on 27th March. The number of reported cases rose rapidly before and fell rapidly after the campaign. The second round is being carried out in July.

The local chapter of the John Snow Society plans to analyse the results of the campaigns at its next meeting. And, in the spirit of the Society, to hear of initiatives to provide safe water during the emergency.



Poster from Ministry of Health, Mozambique. Provincial Directorates of Sofala and Cabo Delgado.

Special report:

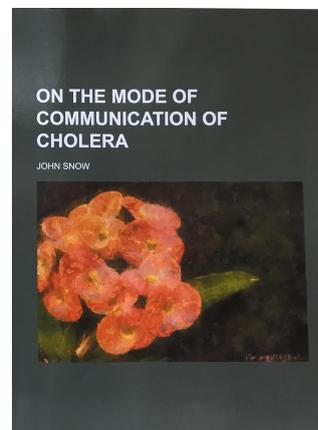
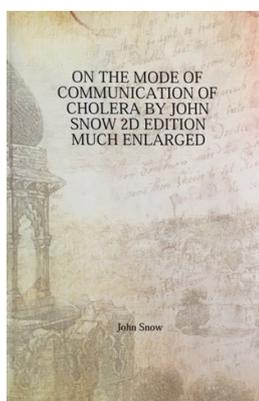
On the Mode of Communication of Cholera – A Warning!

Most members will know about Snow's classic book (in particular its second edition, published in 1855), entitled: *On the Mode of Communication of Cholera*, with its famous maps of cholera south of the River Thames, and in the vicinity of the Broad Street pump. The complete book was republished in facsimile form, along with an introductory essay by Wade Hampton Frost, a biographical essay by Benjamin Richardson, and Snow's oration entitled *On Continuous Molecular Changes* (in which he predicted the properties of infectious microbes), by the Commonwealth Fund in 1936, and then by Hafner in 1965. These books are in many libraries, but are otherwise hard to find, and expensive.

It happens that at least two editions of this work (but without the Frost and Richardson essays or the oration on Continuous Molecular Changes) have recently appeared and are available through on-line outlets. One is a photographed version of the original, produced by Facsimile Publisher in Delhi, India. This text is legible, but the maps have been reduced to single small page size and are distorted and illegible. A second version has recently appeared by General Books LLC in Memphis USA. This one was produced by optical character recognition software. It is incomplete, unformatted, and does not contain the maps. Anyone with a serious interest in John Snow is unlikely to be satisfied by either of these books.

Members may like to know that the complete text of Snow's book, and the maps, are available at <https://www.ph.ucla.edu/epi/snow/snowbook.html>

The Society is at present consulting with publishers in an effort to produce a proper hard copy facsimile edition, with the Frost and Richardson essays and the fold-out maps in their original size. We hope to report progress on this project in next year's Broadsheet.



Delhi edition (far left) and Memphis edition (left)

Society Matters:

Transfer of Society's administration from RSPH to LSHTM

After hosting the administrative functions of the Society since 2001, The Royal Society for Public Health decided to hand over these responsibilities to the London School of Hygiene and Tropical Medicine. The transfer took on 17 August 2018, shortly after circulation of the 2018 newsletter. Members should have noticed little change except for the Society's postal and email address, and phone number.

The Society expresses its thanks to the RSPH for hosting our administrative tasks over recent years, and to the LSHTM for agreeing to take over these responsibilities.

Exclusive to JSS Members

The 11th edition mugs have proven popular as ever... 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 3 additional mugs. The elegant pump-design silk ties and the illustrated book by Dr Spence Galbraith (John Snow: his early years) are also available for purchase. See web site 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 £60. Please email johnsnowsociety@lshtm.ac.uk for orders and enquiries.



Call for nominations to the John Snow Society Steering Committee

The John Snow Society Steering Committee ("J3SC") met on 19 June 2019, continuing its work to manage the Society and make it sustainable into the future. The current committee comprises Jimmy Whitworth and Oliver Cumming (Co-Chairs), James Hargreaves and Paul Fine (co-Secretaries), John Watson and Sebastian Funk (co-Treasurers), Sandy Cairncross and Stefan Flasche (co-Historical Liaison and Web Content Officers), Dilys Morgan and Marta Tufet. No Committee members reach the end of their 3-year terms this year. According to our Constitution, the J3SC can hold up to 12 members, and thus there are two places open this year.

We invite applications from members in good standing (with intact mug and membership card). Following our constitution (<http://www.johnsnowsociety.org/the-society/constitution.html>) 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. Candidates should normally attend the AGM, where each will have the opportunity to speak for a maximum of two minutes, although in unavoidable absence, their statement may be read to the meeting."

Reminder to Members – update your email address

Our cumulative membership total, to whom we will send notice of this Broadsheet, now approaches 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 the details of the annual Pumphandle Lecture.

For more interactive participation in the Society, please follow us on [Facebook](#) and [Twitter \(@JohnSnowSociety\)](#).



Contact details for the John Snow Society

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