NOVEMBER 2024



# ABNA EXCHANGE

australasian biospecimen network association

OFFICIAL NEWSLETTER OF THE AUSTRALASIAN BIOSPECIMEN NETWORK ASSOCIATION

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## 2025 Seminar Series

Planning for ABNA's fourth Annual Seminar Series is underway and we are reaching out to our members for any hot topics they would like this series to explore.

As a reminder our first seminar series in 2022 focused on accreditation and included presentations from the first biobank to gain ISO20387 accreditation as well as biobankers involved in putting together the standard.

Our 2023 series on Biobank Diversity provided insight on how to harness diversity in sample populations, establish an inclusive and culturally safe participant base while celebrating the diversity in biobanking relationships, samples and infrastructure.

And of course, this year we shone a light on different biobanking models with our series entitled Revolutionising Biobanking Models: Centralised, Distributed, Harmonised.

Contact us with your suggestions (by Dec 20) on: info@abna.org.au



**ABNA 2025 SEMINAR SERIES** 

**COMING SOON** 

# 11 Months Down, 1 to Go!

Where did 2024 go?! it's hard to believe how quickly the year has flown by. With just one month left, it's the perfect time to reflect on what we've accomplished.

**VICE PRESIDENT:** Louise Ludlow

SECRETARY: Carmel Quinn

**EDITOR:** Anusha Hettiaratchi

As a fun exercise we've gathered some fascinating statistics and insights from our 5 Minutes with a Biobanker section that are definitely worth sharing – and by the way, chilli on food is always a win! Just saying...



Jeorget

November has been a month filled with awareness and among the key dates this month, one stands out in particular: International Men's Day (November 19). This day provides an important opportunity to highlight the health issues affecting men around the world, and it's a great time to raise awareness about the vital role biobanks and research play in supporting men's health. In honour of this day, we have a special feature dedicated to how biobanks are contributing to research that addresses men's health concerns. Read on to learn more about how these resources are making a difference in understanding and improving men's health outcomes.

In this edition, we're thrilled to share an interview with Nida Jawaid, Senior Biorepository Officer at Indus Hospital & Health Network in Pakistan. In our "5 Minutes with a Biobanker" section.

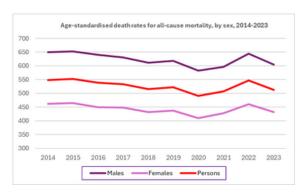
And for those of you dreaming of a trip to Canada, here's your chance – ISBER 2025 registration is now open! Read on for more details.

Lastly, don't forget to reach out with any topics you'd like us to explore in our 2025 seminar series and newsletters. We'd love to hear from you! See you in next month's edition – it's going to be a cheeky Christmas version you won't want to miss!



### By Georget Reaiche-Miller

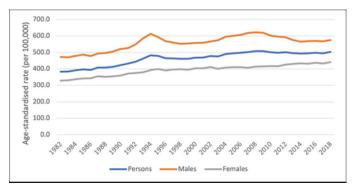
November 19 marked a special day that many people may not be aware of – International Men's Day, a global awareness day to focus on men's health and wellbeing: social, emotional, physical, and spiritual. Men's health is a crucial aspect of overall well-being of our society, yet it often receives less attention compared to other health issues. Promoting awareness and understanding of men's health is essential for improving longevity, quality of life, and preventing premature deaths in our community. Addressing this need involves not only public health initiatives but also scientific research. We highlight here biobanks that play an integral part in supporting and advancing men's health.



According to the Australian Bureau of Statistics (ABS), in 2023, the leading causes of death in Australia were cardiovascular disease, cancer and dementia. Death by suicide was the leading cause of premature death in 2023 and our men made up three quarters of those deaths. Overall, 53%–54% of yearly deaths are men and this can be seen on the ABS death rate by sex in the period of 2014 – 2023.

Age-standardised death rate. Death rate per 100,000 standard estimated resident population as at 30 June. Reference: <u>LINK</u> accessed Nov 2024

Cancer Australia data collected from 1982-2018 on incidence rates for all cancers combined (see graph to right), demonstrated that more men than women die of cancer each year. Their latest data from 2022 also revealed that the most common cancer diagnosed was prostate cancer followed by breast cancer. Prostate cancer was the 4th most common cause of all-cancer death after lung, colorectal and pancreatic cancer, with the incidence of the top 3 also being higher in men than in women.



Age-standardised incidence rates for all cancers combined, 1982 to 2018, by sex. Reference: LINK accessed Nov 2024

## Movember

Most of our members are probably aware that November offers a fun and meaningful way to support men's health through <u>Movember</u> — grow a moustache, dye your hair, run 60km to represent the 60 men lost to suicide every hour worldwide, or even organize a workplace competition. Since 2003, Movember has funded more than 1,250 men's health projects around the world, challenging the status quo, shaking up men's health research and transforming the way health services reach and support men.

If you haven't visited their website, you can do so by clicking their logo.

MOVEMBER®

"Our fathers, partners, brothers, and friends are facing a health crisis, yet it's rarely discussed. Men are dying too young. We can't afford to stay silent."

In general, life expectancy in men is shorter than women, they are more likely to suffer from chronic health conditions. Mental health is often overlooked in men, with a greater tendency for men to suppress emotional issues. Depression, anxiety, and suicide rates are rising among men – they are four times more likely to die by suicide than women, as many don't seek help due to perceived stigma or societal pressures. Men are also less likely than women to visit a doctor regularly or engage in preventive health measures like screenings and health checks; this reluctance can lead to delayed diagnoses and worse outcomes for conditions that could be prevented or managed with early intervention.

## The Role of Biobanks in Supporting Men's Health

There are a few different research areas in men's health that biobanking encourages and advances. These include;

**Population Health Studies.** Biobanks often involve diverse populations, enabling researchers to study trends in diseases, lifestyle factors, and environmental influences. This data is invaluable in understanding how various factors affect men's health and can guide public health strategies aimed at reducing health disparities.

**Genetic Research.** Men and women experience diseases differently, and genetic factors play a significant role in this. By supporting men's health, biobanks contribute to research into male-specific conditions. For instance, genetic studies using biobanks can help identify risk factors for these diseases, leading to personalized treatments and preventive measures. Many diseases disproportionately affecting men, such as heart disease and certain cancers, can be detected early through screenings and biomarkers. Biobank data can help identify these biomarkers, improving early detection methods and enabling targeted prevention strategies.

**Tailored Treatments.** Advances in precision medicine rely heavily on the data provided by biobanks. By understanding the genetic makeup of men and how it influences health conditions, scientists can develop tailored therapies that are more effective and have fewer side effects.

## Men's Health Biobanks

There are a number of biobanks in Australia and worldwide, as well as specific studies or surveys that focus on men's health:



<u>Ten to Men - The Australian Longitudinal Study on Male Health</u> focuses on the health and lifestyles of men and boys and is the first of its kind in Australia. It is a national research initiative, that is aimed at understanding the reasons behind why men have generally poorer health outcomes than women with the ultimate goal being to enhance programs and policies aimed at improving male health across the country.



<u>The Prostate Cancer Foundation (PCF)</u> Biobank with a focus on prostate cancer and prostate health, PCF supports multiple biobanks and tissue collection initiatives to understand prostate cancer genetics, biology, and treatment outcomes. Their collections support the study of prostate cancer risk factors, progression, and therapy responses.



The University of Melbourne operates a men's health research center that focuses on mental health disorders, including depression and anxiety in men, and the effects of prostate cancer on men's wellbeing. They collect data and biological samples to explore these issues in greater depth.



The Cleveland Clinic Men's Health Study focusing on chronic conditions that disproportionately affect men, such as cardiovascular diseases, prostate cancer, and sexual health. This research center collects both biological samples and data to better understand and treat men's health issues.



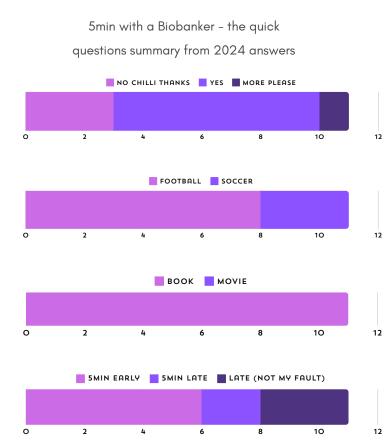
The National Institute on Aging (Men's Health Collection) focuses on studies and collections on aging with a dedicated Men's Health Collection. These include the effects of aging on testosterone levels, mental health, and prostate health. It also includes a wealth of data on men's cognitive decline and Alzheimer's disease.

Biobanks and collections are vital resources that provide essential data to advance research on health issues specific to men. They support studies in areas such as genetics, mental health, prostate cancer, aging, and other conditions that disproportionately affect men. Many of these initiatives allow researchers, and sometimes the public, to access certain datasets for research purposes for those interested in participation or data use.

Tackling health disparities, promoting preventative measures, and understanding the unique health challenges men face are key to improving public health outcomes. Biobanks play a crucial role in this effort by offering the data needed to propel scientific research, improve early detection, and create personalized treatment options. These initiatives help enhance the health and well-being of men globally, leading to longer and healthier lives.

Dedicated to all the amazing men in biobanking and in biobankers' lives!

# ABNA Exchange 2024 Round Up



With just our December edition to go in 2024 the Newsletter Sub-Committee hope you have enjoyed the first year of ABNA Exchange (the newsletter formerly known as Bio-Babble).

We've brought you a range of articles this year including the Wollemi Pine, using DNA to identify human remains, making beer from biobanked yeast, the Microbiota Vault and how the microbiome banks help performance of Olympic athletes. We hope you enjoyed reading them as much as we did putting them together.

The Newsletter Sub-Committee are always on the lookout for new and interesting biobanking and biospecimen science stories. If you have something happening at your biobank or want to give a shout out to an innovation from another biobank we would love to hear from you.



# ISBER 2025 Conference Updates

# Registration for the 2025 ISBER Annual Meeting is Now Open - Grab the Early Moose Rate!

Don't miss the opportunity to join us in Montreal this May and take advantage of discounted Early Moose rates! This meeting promises an engaging experience with exclusive activities, including:

- Guided visit to world-renowned biobank sites Gain firsthand insights into cutting-edge biobanking practices.
- Speed networking event Perfect for new attendees and members to connect, share, and build lasting relationships in the community.
- 5K Fun Run through Old Montreal Enjoy a scenic run along the historic St. Laurent River with our iconic event t-shirt.
- The ISBER Soirée A celebratory evening to network, relax, and enjoy the spirit of Montreal together.

#### Roundtable Discussion Topics: Submissions Extended to January 13, 2025!

Have a hot topic you're passionate about?

Submit your ideas for roundtable discussions and help shape the dialogue at this year's meeting.

What's a Roundtable Discussion? Roundtable sessions feature a group of presenters who will make brief, informal remarks about a specific idea or topic. They allow for extensive discussion and audience participation. These sessions can take many forms, with presenters delivering prepared statements or diving straight into questions from the moderator or audience. Regardless of format, they're designed to elicit an exchange of viewpoints among the experts on a topic.

Don't wait—secure your spot today and get ready for an unforgettable experience at ISBER 2025!



## 5 Minutes with a Biobanker

We approach a different professional in the biobanking arena with the same five questions each month.



This month Nida Jawaid, Senior Biorepository Officer at Indus Hospital & Health Network (IHHN), and ISBERs newest IPR Regional Ambassador for Pakistan.

#### THE QUICK QUESTIONS

#### Chilli on food?

More please

#### What is better the book or the movie?

Book - The book is the ultimate playground for your imagination, where every twist and turn of words is a wild ride, and you get to be the director of your own movie in your mind!

#### Is it football or soccer?

Football - But I actually love cricket more than football or soccer

#### Are you usually 5min early or 5min late?

5 minutes late (but not my fault) - because my institute provides little margins and I like to make sure I utilise it all

# 1. How long have you been working in biobanking?5 years

#### 2. What has shaped your views on biobanking?

My biobanking journey has been driven by a passion for advancing research and improving healthcare. Working with diverse projects, from microbiological isolates to cancer, and contributing to accreditation, has taught me that biobanking is not just about preserving samples or maintaining a freezer full of samples—it's about enabling discoveries and save the future of science. Each challenge has shaped my commitment to quality, innovation, and collaboration in this ever-evolving field.

#### 3. What is the craziest thing you have done to save a sample/s?

Biobanks face constant challenges requiring quick thinking, adaptability, and long-term foresight. Every decision, from storage to sharing samples, impacts research. The crazy moments are to test our ability to innovate under pressure, manage limited resources, and preserve samples for future use.

#### 4. What has been your favourite moment (so far) in your biobanking career?

I've had many incredible moments in my biobanking career, from winning the QBRS grant to becoming an ISBER Regional Ambassador for IPR. But for me, the most meaningful moment is knowing that I'm contributing to the growth of biobanking in Pakistan, where the field is still developing. Being part of building this critical infrastructure fills me with pride, especially when I see the recognition of my work and its impact in IHHN. Every small step we take in advancing biobank practices here brings us closer to creating a strong foundation for future research and healthcare solutions. It's this sense of progress and purpose that fuels my dedication to biobanking every day.

#### 5. What was the last conference you attended and where was it?

The last conference I attended was the PAP (Pakistan Association of Pathology) Conference 2024, held in Lahore, Pakistan, where I had the honour of winning the Best Oral Presentation Award for my work on the biobanking of Mycobacterium tuberculosis.

# Biobanking in the News

## A second life for Kenya's seed bank

The Genetic Resources Research Institute in Kenya was established in 1988 with a vision for a vibrant and wellcoordinated genetic resources conservation agenda, servicing food security, climate change resilience and economic prosperity initiatives.

Set up to hold and conserve seeds from the traditional crops that were in danger of disappearing, as farmers and the agricultural industry moved to higher-yield varieties, the cold rooms of the national seed bank are now almost full.

Following decades of collaborating with researchers studying crop genetics and others working to develop improved varieties, as the climate crisis increases food insecurity, this repository of about 50,000 seed and crop collections could become a lifeline for farmers. Given erratic weather patterns farmers now need a greater diversity of crops - the bank is playing a part in the comeback of indigenous crops that are resistant to drought and pests but fell from favour and have been neglected for decades.

The Seeds of Resilience project, launched in 2019, has supported national gene banks in Ethiopia, Ghana, Kenya, Nigeria and Zambia with financial and technical support to keep resilient, healthy and nutritious crop collections, and to increase their support for farmers.



A taxonomist prepares a herbarium specimen

Image credit: Kenya National Strategy on Genetic Resources within the Context of Climate Change

### Article: Biobanking and genetics

A recent article in Nature Genetics Reviews: "Biobanking with genetics shapes precision medicine and global health" provides a genetics-focused review of biobanks around the world that support precision medicine. The study reviewed 15 globally distributed representative population-based biobanks with electronic health records data that are large in scale (>50,000 participants), non-commercial and publicly accessible to researchers.



Geographical distribution of biobanks in this Review across China (purple), Estonia (green), Finland (blue), Japan (teal), Qatar (brown), the United Kingdom (red) and the United States (yellow). KPRB, Kaiser Permanente Research Bank; MGBB, Mass General Biobank; MGI, Michigan Genomics Initiative; MVP, Million Veteran Project; UKBB, UK Biobank

The review looks in detail at some of the limitations of biobanks, including selection bias and a lack of genetic diversity and explores the process of trans-biobank research that combines data across biobanks in order to offset these limitations. Trans-biobank research itself however also raises the consideration of the protection of an individuals private health information and barriers of governmental regulations.

They conclude that in order to maximise clinical impacts of precision medicine for all, global biobanks must continue to develop at scale, create linkages to longitudinal phenotypes, provide broad researcher access to data and samples and, importantly, prioritise diversity.



