

## Grant awarded to measure air quality in East Arnhem

**23 October 2023**

Menzies School of Health Research (Menzies) has received funding for a new project focused on improving environmental health awareness among people living in East Arnhem Land.

The project, *'Air in East Arnhem: Crowdsourcing Air Quality, Temperature, and Health Data with Yolŋu Citizen Scientists'*, is a collaboration led by Menzies, Miwatj Health Aboriginal Corporation and AirRater. It's supported by the National Health and Medical Research Council (NHMRC) funded national Healthy Environments and Lives (HEAL) network.

Starting in early 2024, this 2-year project will see research teams carry out temperature, dust and air quality monitoring with the help of Yolŋu citizen scientists living in Nhulunbuy, Gunyaŋara and Yirrkala.

Environmental data will be monitored using low-cost environmental monitoring stations and wearable sensors. The data from these stations will be fed into the [AirRater](#) app, with researchers working closely with citizen scientists to explore its applicability in the East Arnhem region.

Environmental health issues have been raised as a key concern by Aboriginal Community Controlled Health Organisations and many remote communities across Australia. Extreme heat and poor air quality have been linked to poor health outcomes. Studies have found that hot weather has resulted in more deaths than any other natural disaster within Australia.

The Northern Territory Environment Protection agency monitors air quality data for Darwin, Palmerston and Katherine in the Northern Territory. The absence of environmental quality baseline data makes it hard to understand the full extent of environmental stressors experienced by remote communities and is a reason why this research is important.

Having adequate data is the first step to raising awareness of environmental health impacts experienced by Territorians. This study aims to increase this understanding. Increased understanding can spark change and increase support for actions which help reduce extreme environment-related health risks.

The *'Air in East Arnhem'* project has received more than \$850,000 in funding from the Australian Government's Medical Research Future Fund (MRFF) Indigenous Health Research Fund.

Read more about the study via the [project page on the Menzies website](#).

### **Quotes attributable to Menzies School of Health Research Air in East Arnhem project Chief Investigator, [Dr Supriya Mathew](#):**

"We urgently need this data for remote communities in Australia, as many do not have the physical infrastructure to alleviate the impacts of extreme temperatures or poor-quality air.

"Residents in these communities also have a higher prevalence of chronic disease, which is likely to be exacerbated by environmental conditions.

“This data will help policy makers, remote health service staff and community members by giving them a greater understanding of the health impacts caused by exposure to poor environmental conditions. This information will empower them to then take actions to solve the problem.”

**Quotes attributable to Miwatj Health Aboriginal Corporation, Research Manager, Dr Bronwyn Rossingh:**

“The Yolŋu of north-east Arnhem Land tolerate remoteness, harsh environments and chronic disease at extreme levels.

“This air quality monitoring project will enable a collection of unprecedented data to bring focus to specific environmental factors that contribute, cause or exacerbate chronic illness, particularly respiratory diseases.

“The impacts of the environment need to be known and understood so that policy makers and town planners in this region can have an evidence base to act on to reduce the risk to health and wellbeing of Yolŋu now and for generations to come.”

**Quotes attributable to AirRater Chief Investigator, Professor Fay Johnston:**

“AirRater is excited to partner with the Menzies School of Health Research, Miwatj Health and Yolŋu for 'The Air in East Arnhem' project.

“We developed the AirRater app to help reduce the burden of illness caused by airborne hazards like air pollution, by letting people everywhere know their air quality and how it affects their health.

“The Air in East Arnhem project will support Yolŋu to try out the AirRater service and give feedback so we can adapt and improve newer versions of the app.”

**Quotes attributable to NHMRC Healthy Environments And Lives (HEAL) National Research Network Director, Professor Sotiris Vardoulakis:**

“Climate change is increasing the frequency and intensity of heatwaves, bushfires and dust storms, which exacerbate exposure to heat and air pollution in many communities across Australia. This is affecting everyone’s health and is putting the most vulnerable members of our communities, such as the very young, the very old, and those with lung and heart diseases, at higher risk.

“The Air in East Arnhem project, under the auspices of the HEAL Network, will improve our understanding of these environmental exposures and actions citizens can take to protect their health.”

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**Menzies School of Health Research**

Menzies is one of Australia’s leading medical research institutes dedicated to improving the health and wellbeing of Aboriginal and Torres Strait Islanders, and a leader in global and tropical research into life-threatening illnesses. Menzies continues to translate research into effective partnerships and programs in communities across Australia and the Asia-Pacific region.