

## Outcomes of a population health program at Orange Aboriginal Medical Service

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### Background/Where were we?

Indigenous Australians continue to experience health disparities compared with their non-Indigenous counterparts. Differences in life expectancy continue to persist with Indigenous males and females living on average 11.5 years and 9.7 years less <sup>1</sup>. Further, rates of diabetes, cardiovascular disease and chronic kidney disease show large disparities between Indigenous and non-Indigenous Australians <sup>2</sup>. There are also inequities in health status and access within Indigenous communities.

Aboriginal Community Controlled Health Services provide integrated and comprehensive primary health care, initiated and governed by the local Aboriginal community. They focus on culturally respectful, needs-based and holistic approaches to improving health and wellbeing outcomes <sup>3</sup> for the whole community and are well-placed to adopt a Population Health Approach.

The Orange Aboriginal Medical Service (OAMS) is an Aboriginal Community Controlled Health Service that has been delivering health services to the local and surrounding communities since 2005. In the 2011 census, Orange had a population of 38,056 with 5.4% (n=2,049) of the population identifying as Aboriginal and/or Torres Strait Islander <sup>4</sup>. It is a relatively young population with over 60% being 24 years of age or younger. In August 2013, OAMS had 2,330 active clients (defined as having had more than 2 visits in a two year period), with 67% identifying as Aboriginal and/or Torres Strait Islander. Not all of these clients resided in Orange. Of the Orange Aboriginal population, approximately 60% (n=1,278) attended OAMS.

The vision of OAMS is to deliver culturally sensitive and holistic health care for Aboriginal people and the wider community by providing services within a range of areas <sup>5</sup>, including:

- preventive health
- primary health
- chronic care
- dental
- medical
- maternal and infant health
- mental health.

Providing high-quality and safe health care within each of these areas is a priority for OAMS. It is, however, recognised that an Aboriginal Medical Service is well-placed to promote health and prevent disease as well as treat illness in the communities they serve. A population health approach provides an effective framework to do so.

### Where do we want to be?

OAMS seeks to improve the health status of the whole community and to reduce inequities between and within populations. This involves reaching the wider community beyond those who were already accessing services and to address underlying determinants of their health such as social, physical and economic factors. The vision of OAMS is to provide evidence, including comprehensive and accurate clinical and demographic data and high-quality research findings, upon which to base decisions about continuous improvement in the provision of health care. OAMS recognises that these goals are best achieved by working in partnership with organisations that share their vision for Aboriginal health.

## How will we get there?

OAMS is using the Population Health Approach to address the health of the population in addition to treating individual illness. The Population Health Approach “focuses on the interrelated conditions and factors that influence the health of populations over the life course”, identifies inequities within and between populations and applies this knowledge to policy and strategic developments to improve health and wellbeing<sup>6</sup>. It is a continuous and ongoing process at OAMS.

There are several key elements of the Population Health Approach<sup>6</sup>, including the following:

- focus on the health of populations
- address the determinants of health and their interactions
- base decisions on evidence
- increase upstream investments
- apply multiple strategies
- collaborate across sectors and levels
- demonstrate accountability for health outcomes.

Focusing on the health of the population requires identification of indicators to measure health status. This enables the measurement of inequities between and within populations. Data is required not only on mortality and life expectancy but on morbidity, risk factors, quality of life, and positive health dimensions or behaviours<sup>6</sup>. Data is also needed for the determinants of health and interactions between these. This provides evidence upon which to base decisions about where in the causal stream to invest and the sectors and organisations to involve. Finally, the Population Health Approach uses a mix of strategies and interventions in multiple settings and incorporates outcomes monitoring for any policies and activities implemented.

OAMS established a population health committee to lead population health strategies and actions. The Committee provides governance, leadership, direction, advice and support for the program. The committee consists of members of local organisations with a role in improving Aboriginal Health including OAMS, the University of Sydney, the University of Western Sydney, the Western NSW Local Health District, the Western Medicare Local and Charles Sturt University. The Committee reports progress on the program to the OAMS Board. The initiatives OAMS has developed from implementing the population health approach are described for each of the key elements below.

### Focus on the health of populations

OAMS took a population health approach to begin to measure the health of the local Aboriginal community. This involved drawing on OAMS client data and the knowledge of staff about the health, and related contextual factors, of the local Aboriginal community to provide a picture of the health of the population.

OAMS client data were analysed under a dedicated research project, which aimed to quantify the health issues of OAMS clients and their management at OAMS under the Indigenous Health Assessments (Medical Benefit Scheme item 715)<sup>7</sup>. This would be a first step in measuring the health of the whole Aboriginal community upon which further research could build. This resulted in the quantification of morbidities, risk factors, management and treatment approaches and follow-up of identified issues for the clients of OAMS<sup>7</sup>. It also provided important demographic information. As a result, the leadership and staff of OAMS have detailed data on the health of the community accessing services and are able to identify gaps in service provision and future directions for the organisation. Data also provides evidence that can be used in applications for funding or grants to address health risk factors and determinants.

This was a significant step for OAMS in moving beyond the treatment of illness in those presenting to the service to identifying the health needs of the community as a whole. There is a need, however, to further explore causes of decreased quality of life due to chronic conditions and measures of positive health dimension<sup>6</sup>. The previous research did not explore these factors. The measurement of such

characteristics will provide a more complete picture of the health of the community. Further, if such factors are measured prior to implementing new programs and activities it would provide baseline data to which post-program data can be compared. This will provide the opportunity to evaluate the outcomes of programs for patients, in terms of their quality of life, health behaviours and positive outcomes of treatment. Future research at OAMS will explore these areas.

In addition to research, OAMS staff members were involved in several population health workshops, at which they identified key health and socio-economic issues experienced by clients in several age groups to provide a “story” of the health of the population. Staff made recommendations on service delivery, health promotion and prevention and outcomes monitoring, which are used in planning the future directions of the organisation. This exercise provided qualitative data on the health of sub-populations within the Aboriginal community as well as information on the context of people’s lives. It is an important step in describing the health of the local Aboriginal population and providing data upon which to shape services.

### **The determinants of health**

Factors that are known to influence and contribute to health include:

“social, economic and physical environments, early childhood development, personal health practices, individual capacity and coping skills, human biology and health services”<sup>6</sup>.

The holistic, or ‘whole-person’, approach to health acknowledges these determinants and is integral to service provision at OAMS. The impact of the socioeconomic and physical environments is well-recognised by OAMS staff and this was evident in the population health workshops within which staff identified the factors influencing their clients’ health. Staff identified various issues, such as overcrowded housing, drug and alcohol use, family and social relationships and disengagement from education as having an effect on their clients’ health, their management of illness or prevention of disease. Staff also identified strengths of the community in supporting health, including the strong connections within families and the role of extended family in supporting the health and wellbeing of children.

Research has also identified determinants of health prevalent among OAMS clients. For example, research data has shown that overweight and smoking are prevalent risk factors for OAMS clients and stresses the importance of programs that address these determinants, such as exercise physiology and smoking cessation programs. This data drives the implementation or enhancement of services.

The information gathered by OAMS on the determinants of health has been included in a report on the health of the community, which combines client demographic data, population health data, qualitative data and recommendations for service delivery and improvements. This report is a significant outcome of the Population Health Approach that will evolve over time in response to the evolving health needs of the community. It impacts on the direction of services and will continue to impact on the development of population health strategies at OAMS.

### **Evidence-based decision-making**

Mixed research methods, including the use of quantitative and qualitative information, have been used by OAMS to provide evidence for decision-making. The identification of rates of morbidities, risk-factors, treatments and follow-up among OAMS clients has provided a solid evidence base on which to make decisions about service improvements and priorities for the organisation. So, too, has the information provided by staff on the health of their clients in the form of stories or case studies and recommendations for service improvement and outcomes monitoring.

Epidemiological data, such as rates of smoking, alcohol use, mental illness, socio-economic deprivation and incidence of disease among others have also been used to complete the picture of the health of the Aboriginal population. In the future, OAMS will also use Orange-specific data to explore reasons for hospitalisation, emergency department presentations, visits to GP practices and perinatal outcomes for young Aboriginal people.

Importantly, this evidence is able to be transferred to policy and decision makers within the organization through the open lines of communication between researchers, staff, the CEO and Board members. Findings can also be disseminated more broadly in relevant forums and publications providing wider access by health professionals and decision-makers outside the organisation. This contributes to the knowledge base upon which population health initiatives can be built.

The PHA has also contributed to a general recognition among OAMS staff of the importance of the collection, recording and accuracy of data. This is evident from staff feedback. There is also increasing interest in using research to measure the uptake and effectiveness of services at OAMS. Ongoing communication between the research team and OAMS staff members drives the development of new research.

A next step for OAMS is exploring the options for measuring the effectiveness of interventions to change health behaviours, determinants of health or health outcomes.

### **Increase upstream investments**

OAMS has focused considerable effort on factors presenting earlier in the causal stream through health promotion, prevention and early intervention strategies. Research on risk factors, in addition to the knowledge of staff has provided key information on the upstream factors that may influence health and has reiterated the importance of strategies such as well persons' screening for diabetes, STIs and blood pressure to improve early identification and treatment.

The Population Health Approach, through staff workshops, has also captured information on key areas of development. For example, within the Better Start to Life program there has been a focus on the need for antenatal education to increase the number of normal birth-weight babies, early childhood parenting education to improve early childhood development, health assessments for children, timely immunizations for children and early referral for high risk pregnancies. It has recently been identified that OAMS requires the services of a social worker to work with clients of the 'Mums and Bubs' service to address socio-economic factors that are impacting on the mothers' ability to manage her own, and her children's health.

Capturing information through a population health approach provides evidence for decision making about where to invest in the causal chain to meet the needs of the community.

### **Apply multiple strategies**

Multiple strategies have been used at OAMS including governance through the Population Health Committee, education through staff population health workshops, research, partnerships, evaluation and community engagement.

The ongoing program of research at OAMS has been conducted in collaboration with the universities represented on the population health committee. There have been two research projects completed to date and a third project is seeking ethical approval to begin. These projects are briefly described here.

#### ***Staff satisfaction with the Population Health Program***

The Population Health Program included a research component evaluating staff satisfaction, successes and issues with the PHA program. This involved the completion of surveys at 6 months following commencement of the program by OAMS staff, Population Health Committee members and the leadership. Overall, the program was well-received by the staff of OAMS with a majority responding that they had a good understanding of population health, that they had opportunities to have input at the workshops (75%) and that population health initiatives had been identified (75%).

#### ***Health Assessments for Indigenous Australians at Orange Aboriginal Medical Service***

The Aboriginal Health Assessments (AHA) research showed that there were 1,169 AHAs conducted in a two year period between 1<sup>st</sup> January 2011 and 31<sup>st</sup> December 2012, with approximately a third of all OAMS clients having had an AHA<sup>7</sup>. This research demonstrated a potential for improved service delivery in a number of areas by identifying gaps in the collection of patient information. For example, vaccination status was not recorded for 43% of children<sup>7</sup>. Identification of this issue has resulted in increased effort to record immunisation status for eligible clients, which will lead to more accurate

monitoring of rates of immunisation. Similarly, recording of pap-smear status for eligible women was not optimal, with 36% not having pap smear status recorded<sup>7</sup>. Staff awareness of this deficit has resulted in improvements in recording of pap smear status and has been an important outcome of this project. The AHA research also identified poor attendance at referrals with 60% of referrals not attended<sup>7</sup>. A further outcome of this project is greater effort to increase attendance of clients at referrals.

### **Health, access and engagement of Aboriginal young people with the Orange Aboriginal Medical Services**

The youth health access project seeks to provide a comprehensive picture of the health of young Aboriginal people in the Orange area. It proposes to analyse NSW Health and Medicare Local GP data collections, as well as interview staff to complete a quantitative and qualitative analysis of the health issues and needs, health care utilisation and perceptions of OAMS staff on the access enablers and barriers for young. An extension of this project will seek to survey young people in the Aboriginal community about their health needs and the factors that influence their access to health care. This project will seek advice and feedback from the Aboriginal Health Workers at OAMS as well as from the Orange Aboriginal Community Working Party. This component of the project will explore the needs of the wider community in addition to those of current OAMS clients.

### **Collaborate across sectors and levels**

OAMS works in partnership with a number of organisations to progress priority areas of service delivery and the PHA has contributed to this effort. Partnership with the university sector has opened up access to academic expertise in population health, which has helped to deliver the PHA at OAMS. It has also resulted in opportunities for training for OAMS staff and the OAMS Board and has been a significant driver of the research at OAMS.

Partnerships have also resulted in successful grant applications. In partnership with the Western Medicare Local, the Western NSW Local Health District, and the University of Sydney, OAMS successfully applied for a Cancer Institute NSW "Evidence to Practice" grant. The purpose of the grant was to fund projects in organizations working in cancer control that embed evaluated research into practice. The vision of the tobacco control grant was that Aboriginal people would be able to access consistent tobacco control services, follow up and support seamlessly no matter the health provider through which they access the system.

The project involved the appointment of a part-time tobacco coordinator for Central Western NSW, who initiated a range of strategies including the development of a mentor scheme for Aboriginal Health Workers to apply and develop evidence based methods and to develop an integrated approach by improving links between services. The project also aimed to facilitate policies, data collection and evaluation that was culturally sensitive<sup>8</sup>.

Staff members of participating organisations have a greater awareness of services within each organisation, contributing to a more seamless patient journey for Aboriginal people seeking smoking cessation services<sup>8</sup>.

### **Outcomes monitoring**

Determining the degree of change in health status and the determinants of health can distinguish between interventions that are working and those that are not<sup>6</sup>. The population health approach at OAMS has provided key baseline data that can be used to measure changes in health status and risk factor incidence in the community. Along with the consideration of other factors that impact on the health status of the population, this data will be an important reference point when evaluating the impact of new programs and services.

### **Discussion**

The application of the Population Health Approach at OAMS is intended to provide a solid foundation upon which to make decisions about the enhancement of existing services and the implementation of new services to meet the needs of the local community. The population health approach aligns closely with the concepts of health shared by many Aboriginal people, which has an emphasis on the wellbeing of the entire community<sup>9</sup>. It also provides an effective framework within which to address

the continuum of health, with multiple strategies encouraged at various points in the causal stream. This is what is needed to build on the important work that is already having an impact in the provision of Aboriginal health care.

OAMS has achieved several significant outcomes of their population health program, including enhanced skills and confidence of staff, several research projects completed or in development, improvements in clinical data collection, recording and extraction, receipt of a tobacco control grant, recognition of gaps in service provision and service improvements in a range of areas. There is, however, still work to be done within key elements of a population health approach. There is, in particular, a need to expand the work of OAMS to the wider Aboriginal community; to include research on the health and service needs of those members of the population who are not currently clients of OAMS and who may or may not be accessing services elsewhere. There is also a greater need to utilize data to measure outcomes in an effort to measure the effectiveness of programs and services. Most importantly, the population health approach has provided OAMS with a promising framework for ongoing, collaborative and evolving strategies for closing the health gap.

Commonwealth and State Governments should encourage Aboriginal Community Controlled Health Services to establish a population health program using a similar approach as described in this paper, where appropriate, through research partnerships with the local universities and Local Health Districts.

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## Presenters

**Kristy Payne** is a research officer with the University of Western Sydney's Rural Clinical School in Bathurst, NSW. In this role, Kristy works closely with the Orange Aboriginal Medical Service (OAMS) to support research in the area of Aboriginal health as well as contributing to the school's research in rural medicine. Kristy is involved in a broad range of research projects covering topics such as population health, health service evaluation, health service access, youth health perspectives, and health attitudes and behaviours. Kristy has a background in psychology and epidemiology with several years experience in youth mental health research. She has an interest in both qualitative and

quantitative research methodologies for exploring the health of rural and regional populations and their access to health services and prevention.

**Ekala French** is a Wiradjuri girl from Orange NSW, who is an Aboriginal health worker at the Orange Aboriginal Medical Service. She commenced studies in April 2013 at the Yarradamurrah Centre in Dubbo, and later completed the course in August 2014. Ekala has been employed at the Orange Aboriginal Medical Service as a trainee Aboriginal health worker from March 2013 to March 2015, and has since successfully completed the traineeship. Throughout the course through TAFE Western she has learnt an immense amount of information that has provided a rewarding job and remarkable life skills. Having the role as an Aboriginal health worker is so rewarding for Ekala because it gives her the opportunity every day to help people who are in need, not only to address their health needs but to address their holistic needs as well, which makes it that little extra rewarding. Ekala has set some goals for 2015 to continue doing more studies to expand her clinical skills through nursing, then to eventually become a midwife, which is her passion.