PROJECT TITLE: Ambulance attended injuries and adverse health events associated with trails-based types of recreation in WA

FIELD OF RESEARCH CODE: 1110

PROJECT SYNOPSIS:

The majority of physical recreation in Western Australia is thought to be self-organised rather than through team-based, competitive activity. Many recreational activities involve trails. Little is known about injuries sustained during trails-based recreation in Western Australia (WA), nor is much known regarding trails-associated adverse health events and deaths.

The last 20 years has seen exponential growth in mountain biking and other self-organised activities. Recent research in Victoria found cycling was responsible for the greatest number of all activity-based major trauma injuries (n=1,280), including deaths (n=126). In 2019 the WA Government committed $15 Million investment in new biking trails in South-West WA. With increased opportunity for participation, the number of injuries and adverse health events associated with trails-based types of recreation in WA will continue to increase steadily. Resources defining trails and permitted uses include the Trails WA website.
Examples of trails-based types of recreation include mountain biking, hiking, horse-riding, and trails motorbiking. Examples of recreational activities that are not types associated with trails include video games, tennis, aerobics, skateboarding, and rock-climbing.

This study aims to characterise and quantify the burden of ambulance attended injuries and other adverse health events associated with trails-based types of recreation in WA. The results will inform trails management policy, the development of preventive interventions, and the pre-hospital care of patients.

Initially the candidate may conduct a scoping review to identify what is currently known about participation in trails-based types of recreational activities in WA, and what is known about injuries and adverse health events sustained while engaged in recreational activities (that are of the types associated with trails use), both in WA and elsewhere. Following the scoping review, an in-depth exploration will be conducted into the previous five years of electronic St John WA (SJWA) de-identified ambulance data, which are available to the project lead. Ethics approval to explore these data for recreational injuries has already been obtained from both Curtin HREC and the SJWA Research Governance Committee. This analysis will characterise the patients attended by an ambulance in WA after an injury or adverse health event while engaged in the types of activities that often occur on trails. Their regional distribution, seasonal patterns, characteristics of injuries or adverse health events, paramedic observations and interventions will also be described.

Once the overall pattern of trails-type recreational injuries has been described then it is likely the candidate will narrow the focus to a sub-group of interest. This might be a particular activity with a high number of serious injuries or adverse health events, or a particular region, or even specific National or State parks, (identified by GPS coordinates from the ambulance attendance, which are contained within the electronic patient care records).

Community consultation will then assist the candidate design a qualitative element to round out the research project. The aim will be to explore the findings from the focussed sub-group. The research question might be to confirm if the findings from the data match the experiences of a large body of participants, or to catalogue self-reported reasons for the injuries or adverse events, or some other question yet to be informed by the third phase of the project. The Department of Local Government, Sport and Cultural Industries have intimated one of the main questions they wish to answer includes what differences exist between injuries that occur on the trails they establish and/or manage, and those occurring on unregulated trails. That question may form part of the qualitative project.

Ultimately, it is envisaged at least four papers will result from this project; a scoping review, descriptive epidemiology, analysis of a sub-group and a qualitative project. A number of meetings have been held between the lead and the WA Department of Local Government, Sport and Cultural Industries. Potential exists for a future NHMRC Partnership Grant once a foundation of research outputs is established. It is believed there are no other projects underway in WA with a focus on non-organised, non-competitive recreational activities, of the type that often occur on trails.
FEASIBILITY AND RESOURCING – DESCRIPTION OF THE SUPPORT THIS PROJECT WILL RECEIVE:

The previous five years of electronic St John WA (SJWA) ambulance patient data, required for this project, are available to the project lead. Ethics approval to explore these data for recreational injuries has already been obtained from both Curtin HREC and the SJWA Research Governance Committee. St John WA (ambulance) will cover the minor expenses associated with the fieldwork phase of the project.

There is adequate data analysis and statistical support within the team to support the candidate, through their existing partnership with the Prehospital Resuscitation and Emergency Care Research Unit (PRECRU).

THE SIGNIFICANCE OF THE PROJECT/ PROGRAM FOR THE ENROLLING SCHOOL OR INSTITUTION:

The results of this project will serve a foundation for a Partnership Grant application. Preliminary meetings with the Department of Local Government, Sport and Cultural Industries, and other interested parties show high interest in this, once our capacity to identify recreation-associated injuries has been demonstrated. Furthermore, this project will add to the existing strong collaboration between the school and St John WA (ambulance).

Students must express interest in this scholarship opportunity by emailing the Project Lead listed below. Please provide a copy of your current curriculum vitae and detail your suitability to be involved in this strategic project.

PROJECT LEAD CONTACT:

Name: Peter Buzzacott
School: School of Nursing, Midwifery and Paramedicine
Faculty: Health Sciences
Email: peter.buzzacott@curtin.edu.au
Contact Number: 08 9266 3041