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# 'Better together': codesign of Aboriginal unintentional child injury prevention programme

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## ABSTRACT

**Objective** To describe the co-design of an Aboriginal unintentional child injury prevention programme in partnership with Walgett Aboriginal Medical Service.

**Methods** An iterative codesign process using Indigenous research methodology and development of a programme logic model was employed with oversight from a panel of injury experts and key stakeholders. Yarning, stakeholder interviews and a codesign approach to programme development, piloting and evaluation were used. Informed by family and community priority setting, an unintentional child injury prevention programme was designed and delivered through a locational supported playgroup in an Aboriginal community-controlled medical service.

**Results** Through an Aboriginal-led codesign approach, a comprehensive injury prevention programme and accompanying manual was developed by the community, for the community. Informed and guided by participants, the researcher's areas of child injury considered of high value within their community were addressed within the developed programme. The key safety areas identified were water safety, road safety and safety around the home. Data collected throughout the iterative design process shaped the delivery of the programme to ensure it met community needs. In addition to the creation of the manuals, the programme included complementary initiatives to support the delivery. Water safety included mums and bubs swim lessons/water familiarisation. Road safety included car restraint fittings. Home safety included a Goonimoo open day collaboration with KidSafe New South Wales with safety promotion information and resources.

## Conclusions and public health

**implications** Codesigning an injury prevention programme with staff at an Aboriginal Medical Service and injury experts provided a culturally tailored response to the needs of the community and partners. This process and approach has demonstrated the feasibility of the use of codesigned processes for the development of community-based injury prevention programmes.

## INTRODUCTION

Community-led and collaboratively designed public health programmes and approaches yield beneficial results for Aboriginal and Torres Strait Islander (hereafter Aboriginal) people. In fact, the success of public health interventions with Aboriginal communities depends on authentic partnerships

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Unintentional child injury prevention is a significant issue for Aboriginal and Torres Strait Islander children. However, there are limited targeted interventions and initiatives to prevent unintentional child injuries from occurring designed by and for Aboriginal and Torres Strait Islander peoples and communities.

## WHAT THIS STUDY ADDS

⇒ This study gives an example of Aboriginal and Torres Strait Islander leadership and participation in addressing key health areas. It provides an insight into the effectiveness of codesign and highlights the importance of Aboriginal and community leadership in research.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study identifies an effective approach to authentic codesign of programmes and initiatives, authentically involving key stakeholders at all stages. This approach can be applied broadly to genuinely involve community stakeholders in decision-making.

and inclusion at all levels of predesign, design and implementation.<sup>1–3</sup> Codesign is an approach within research that promotes authentically collaborative practice to ensure that key stakeholders impacted by the research can contribute meaningfully at all stages and at all levels. It is an approach that, if used effectively, can be beneficial in Aboriginal research.<sup>3</sup> A codesign approach, recognising and ensuring equal voice, built on trust, respect and commitment to partnership, provides the structure for collaborative public health programme design with Aboriginal communities.<sup>4,5</sup>

Unintentional injury among children is a significant global issue that requires urgent attention, causing almost 950 000 child deaths each year. Unintentional injuries can occur through a myriad of mechanisms, including traffic injuries, drownings, burns, poisons and falls.<sup>6,7</sup> They are a serious concern for Aboriginal children in Australia, with unintentional child injury accounting for 47% of deaths of Aboriginal children aged 1–4 years.<sup>8</sup> Of those, drowning accounts for 35% of these deaths.<sup>8</sup> The leading cause of death from injuries

for Aboriginal children aged 0–14 years was from land transport accidents (31%), followed by drowning (15%).<sup>9</sup> Rates of hospitalisation were higher for Indigenous children when compared with non-Indigenous children.<sup>9</sup> However, for all children in Australia, remoteness has a significant impact on injury deaths, three times that of urban areas.<sup>9</sup> There is evidence that preventative initiatives and programmes grounded in behaviour change (individual and community),<sup>10</sup> environmental change and systemic change reduce the risk of unintentional injuries, but such programmes are scarce for Aboriginal children in Australia.

Due to the ongoing impacts of invasion and colonisation of what is now called Australia, Aboriginal peoples and communities experience significant health inequities.<sup>11</sup> These are largely due to the complex intersection of the social and cultural determinants of health and their impact on access to primary care, health information and the involvement in the design and implementation of interventions, programmes and solutions.<sup>12</sup> The complex nature of the social determinants of health on populations devastatingly impacted by ongoing colonisation means that a decolonising approach to healthcare must be prioritised,<sup>13</sup> with Aboriginal groups at the fore. Explicitly, this translates as Aboriginal communities controlling the resources, interventions and outcomes that impact the health and well-being of our communities.

The codesign process described took place in the context of an existing research partnership, called Yuwaya Ngarra-li (YN), between the Dharriwaa Elders Group (DEG) and the University of New South Wales (UNSW) that is built on community priorities identified through years of rigorous community-led collaboration and research. YN was established after invitation from the DEG to UNSW to work together on the Elders' vision for positive social change in their community of Walgett in north-western NSW, on Gamilaraay country, Australia.<sup>14</sup> This collaboration and work are guided by Gamilaraay and Yuwalaray language and ways of knowing, being and doing.<sup>15 16</sup> Through extensive community-led consultations, design and collaboration, YN has established and created clear research protocols and strategic goals for their partnership,<sup>14 17</sup> one of which is to improve the health and well-being of Aboriginal peoples in Walgett. YN provided the opportunity and access to place-based expertise that enabled the codesign for this unintentional child injury prevention project.

An important factor in this successful partnership is the leadership from well-established Aboriginal Community Controlled organisations within Walgett itself, namely the Walgett Aboriginal Medical Service (WAMS). WAMS is an Aboriginal Community Controlled Health Organisation (ACCHO) and opened its doors in 1986 following lobbying and organising by founding Aboriginal leaders from Walgett. WAMS is committed to the health and well-being of the community and a leader in Indigenous health. ACCHOs are central to improving and maintaining the health and well-being of Aboriginal communities across this nation. WAMS has many innovative services available for the whole community in Walgett, both Indigenous and non-Indigenous, one of which is the Goonimoo Mobile Children's Service. Established in 1985, Goonimoo provides curated playgroup programmes to support education and development of children aged 0–5 years and their families. The expertise and knowledge of the Goonimoo team were identified by WAMS and DEG as being a core element of improving the well-being of Aboriginal children and families in Walgett.

Walgett is a rural town and shire in North-Western NSW. According to the most recent (2021) census, the population was 5253 people, of whom 21.2% identify as Aboriginal.<sup>18</sup> The

majority (95.8%) of Indigenous people in Walgett speak only English at home and 2.2% use an Indigenous language at home. In Walgett, 15.3% of the Aboriginal workforce reported being unemployed, which is greater than the rate of unemployment (12.3%) among the Aboriginal workforce of Australia. In Walgett, the median household weekly income among the Aboriginal population was US\$996, compared with US\$1507 among the Aboriginal population of Australia. Among Aboriginal people aged 15 years or older in Walgett, 35.9% had completed year 12 or higher education, compared with 48.7% among Aboriginal people aged 15 years or older in Australia.<sup>18</sup>

A group of UNSW injury researchers was made aware of funding available in Aboriginal child injury prevention, thus began discussions with WAMS and YN. During these exploratory discussions, it was identified that this funding met the existing goals of the DEG, which led to YN extending an invitation for the researchers to collaboratively design a programme, the Child Injury Prevention Programme (CHIPP), developed on the foundation of this partnership. CHIPP, with the Goonimoo Mobile Children's Service, is a successful playgroup programme housed within WAMS aimed to meet the vision of the DEG Elders Council through its design, implementation and evaluation to ensure that it is a holistic, community-led, culturally connected and strengths-focused programme that will have a lasting contribution for positive social change in Walgett. This paper describes the process of codesigning an unintentional CHIPP to develop a comprehensive manual and programme created by community for community.<sup>19 20</sup>

While the specific CHIPP project did not have an Aboriginal Advisory Group, it came under the umbrella of the YN governance structure. In addition, the research team included two members of YN at UNSW (Aboriginal and non-Aboriginal), one representative from DEG and two WAMS Aboriginal staff members.

## METHODS

The qualitative research to develop and evaluate the programme was guided by Indigenous research methodology<sup>1 2</sup> and codesign principles through an iterative process across a period of 19 months, from June 2019 to January 2022. A decolonising research approach was taken, with research methods and questions collaboratively designed throughout the CHIPP partnership process. Decolonising approaches paired specifically with Indigenist standpoint theories ensure that research with Aboriginal peoples is led by Aboriginal peoples.<sup>14 15 17 21 22</sup> The primary data used to codesign the CHIPP were collected from yarning circles with participants and stakeholders, field notes and expert injury knowledge. Research Yarning is a relaxed, conversational, semistructured interview method developed by Aboriginal researchers.<sup>22 23</sup> From these data sources, a programme logic and programme content were created, iteratively developed and implemented, all of which created the foundations for what became the CHIPP.

Since its inception, this project has positioned all research and conduct within Indigenist research,<sup>21 24 25</sup> privileging and centring the Aboriginal researchers, Aboriginal early childhood educators from Goonimoo/WAMS and Aboriginal participants involved in the project. The privilege of conducting research within an ACCHO such as WAMS with Aboriginal leadership and voices situates this research as Indigenist research. The lead researcher in this project is an Aboriginal woman, a Kooma woman. Her approach to research is centred in her identity as a black woman, which shapes her conduct and how she engages

**Table 1** Key themes from formative family and caregiver interviews

Theme	Subtheme	Example quotes
Inductive themes		
Community safety	Police; fines; attitudes	"Just imagine a little kid doing it, when you see police you'd run." "They get fined before they can even get these bloody licence or anything to even, you know, leave the town, to even have something of their own, you know, because of all these bike fines and what-not."
	Domestic and family violence	"Yeah but some police talk down to our children"
Delivery methods	Playgroup locations	"Like, maybe having play group at the pool, where we have professionals actually teach us. Just some drills."
	Events	"I like that one. It was just watch me swim. So there's no, like, negativity or like parent blaming happening at all."
Injury topics	Helmet design	"You can't give them a helmet that—they'll hate it."
	Burn	"And she put her hands through the tire on the brake disk. And her hand bubbles up."
	Helmets	"Because a lot of kids think that if it's a scooter, I don't need to wear a helmet."
Knowledge	Mouth guards	"Even mouth guards like, you said. Like, protect your teeth."
	Information for parents/carers	"It would be good. Because there's a lot of misinformation and we don't really know"
Deductive programme topics		
Safety topics	Home safety	"because of safety stuff, as well, like, a really important thing to remember about it; it's not just a pool. It's all of like, well around the home." "and this little girl is getting into everything. Like power points things."
	Road safety	"I never knew that" ... What, car seats? ... Car seats go out of date...No wonder they date them." "they just run out of nowhere."
	Sun safety	"And they, everyone walk around with no shoes on... I'm telling the kids, always put their shoes on.", "heat exhaustion and things... like that and sun protection. Especially out here"
	Water safety	"I like that one. It was just watch me swim"

with communities and colleagues, strengthened by her expertise and knowledge as a trained social worker. This approach ensures transparency and accountability to community and research collaborators. The necessity of black leadership within Indigenous Health research has been well identified, and our presence as black academics and professionals within research is more vital than ever to ensure research meets community priorities.<sup>26 27</sup>

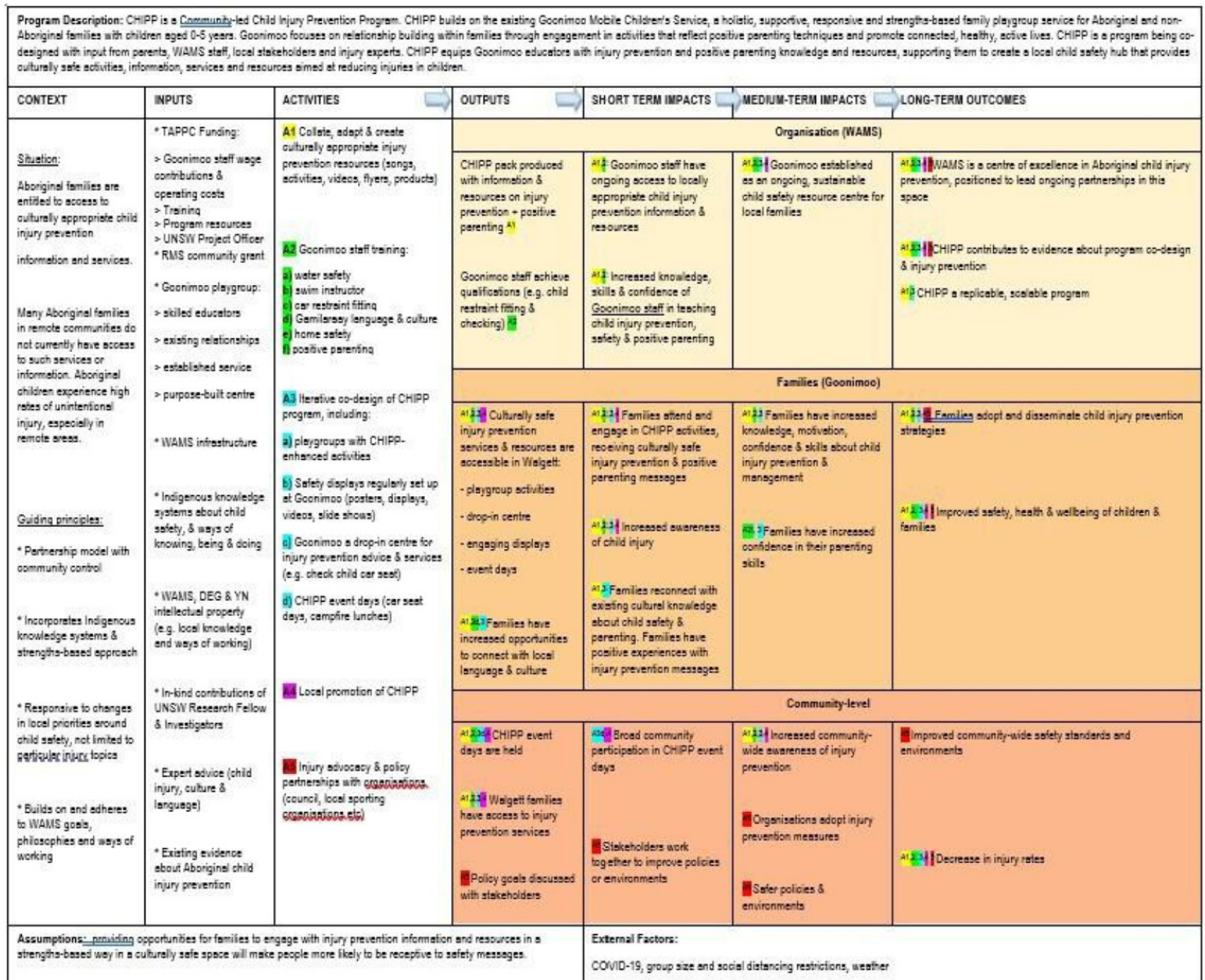
## Data collection

### Yarning

Yarning circles were conducted in Walgett in October 2019. Guides for yarning were developed by the UNSW CHIPP team with input from Aboriginal staff members at WAMS and the YN team to ensure appropriateness of questions and delivery method. These guides were used to facilitate discussion at yarning circles with families across two early childhood sites in Walgett, Goonimoo Mobile Children's (yarn 1) Service and MacKillop (yarn 2). MacKillop is a non-Indigenous service in Walgett that also facilitates playgroups for Aboriginal families. The second yarn was held at the MacKillop playgroup as it allowed more families to participate in the formative yarning circles. These playgroups are held on different days. The deductive programme topics, as seen in [table 1](#), were developed through formative research (literature review) conducted by the lead researcher and codesign meetings with two Aboriginal Goonimoo staff members. Participants were provided with verbal information on the yarning process by one of the Goonimoo staff in the weeks preceding the group yarns to ensure they were comfortable and aware of the processes. The CHIPP team was able to gauge participants' depth of understanding around specific areas of injury and injury prevention. Facilitators used their existing injury knowledge to assess in real time what was understood by the way that participants responded and contributed in the yarns. Topics were introduced into the yarns by facilitators to generate discussion and seek parent/carer insights about key child injury issues as identified in injury literature.<sup>28 29</sup>

Two yarning sessions were held on consecutive days. The first was facilitated by the lead researcher, one of the Goonimoo Aboriginal early childhood educators and supported by a non-Indigenous researcher at WAMS Euragai Goondi community rooms in Walgett. The second was facilitated by one of the Aboriginal Goonimoo staff members and supported by the non-Indigenous researcher at MacKillop playgroup, Walgett. Participation in yarning circles was open to families who ordinarily attended both Goonimoo and/or MacKillop playgroups. Both yarns were audio recorded. Inclusion criteria were being a parent/carer of children attending playgroups or a playgroup staff member. Both Aboriginal and non-Aboriginal families attend Goonimoo playgroup weekly, and all families were invited to participate in the yarns. Catering for participants during yarning sessions and US\$50 vouchers per participant were provided to compensate time spent and acknowledge the value of knowledges contributed by participants. All participants provided informed consent with assistance from the researchers and Goonimoo staff where necessary.

Codesign meetings between the CHIPP team, both from Walgett and UNSW, were held to build on data collected from yarning sessions, to collaboratively design and shape what the programme would look like and how the content would be delivered between June 2019 and February 2021. The frequency of these meetings was fluid, dependent on staff capacity, but ranged from weekly to fortnightly. Most meetings were held online due to geographic location; however, some scheduled face-to-face sessions were interrupted by COVID-19. Clear ACCHO leadership ensured the safety of the Aboriginal community in Walgett by restricting non-essential workers from visiting, and as such, face-to-face meetings were limited or conducted in Dubbo, NSW or Sydney, NSW. With leadership from the Aboriginal early childhood educators, we were able to communicate in a flexible manner to ensure the codesign process was not a burden, but complementary to their work and the impact of COVID-19. Written meeting field notes were taken to document the iterative process of codesign and were



**Figure 1** CHIPP programme logic. CHIPP, Child Injury Prevention Programme; DEG, Dharriwaa Elders Group; UNSW, University of New South Wales; WAMS, Walgett Aboriginal Medical Service; YN, Yuwaya Ngarra-li.

used to shape the design of the programme and development of resources.

### Data analysis

Audio recordings of yarning circles were transcribed by a professional transcription service and imported into NVivo. Data were analysed using inductive and deductive thematic analysis.<sup>22, 30</sup> Themes were identified that were used to determine both the existing knowledge about unintentional child injury among stakeholders in Walgett and community priorities that could be addressed through CHIPP. Data analysis was conducted by the lead researcher.

Content of field notes and contributions made by the expert panel were incorporated into the programme design in an iterative manner.

### Programme logic model

The process of designing the programme logic model commenced in October 2019 and took several months of iterative discussion to revise and refine to reflect the emerging programme design (see figure 1). It was developed with input from stakeholders

in line with the guiding principles of Indigenist research, privileging black leadership at all stages of design and development. The programme logic was initially developed during the frequent codesign sessions between Goonimoo and the UNSW CHIPP team. This process allowed for Goonimoo staff, who were also Walgett community members, to engage with working drafts to ensure the activities and outputs were feasible and met community priorities. During the injury expert review/workshop held in January 2020, injury experts were also invited to review the programme logic, and YN and DEG representatives also contributed to the logic model, ensuring it reflected identified community values and priorities.

### Expert knowledge

Following formative yarns with playgroup participants and key stakeholders, the CHIPP team facilitated an ‘injury experts’ workshop to ensure resources and knowledge provided to families was relevant and evidence based. In January 2020, an expert panel was invited to review content for delivery. The purpose of this expert panel was to ensure the programme aligned with principles of injury prevention, was based on current evidence, and

built on implementation science theories.<sup>31–34</sup> In addition to the workshop, specific injury experts with expertise in road safety, water safety and safety in the home were engaged at various stages in the development of CHIPP resources to review documents and ensure content was evidence based. These reviews were iterative, to ensure that as the programme developed, key safety messages and injury prevention guidelines remained.

## RESULTS

### Yarning

Each yarning session had between 10 and 15 participants. Yarning session 1 was attended by participants who ordinarily attended Goonimoo mobile children's playgroup. Yarning session 2 was held at Mackillop playgroup in Walgett, and the regular attendees in this playgroup participated, of whom all were Aboriginal.

Themes from the yarning provided important knowledge that shaped the way in which the CHIPP was developed and implemented. Five initial overarching themes were constructed: community safety, delivery, injury, knowledge and safety. Each theme had between 0 and 6 subthemes (see [table 1](#)).

### Community safety

Community safety was identified as a concern for participants. Within this theme, participants identified negative police relationships and fear of the police from children and adults as a major issue for their community. For example, one participant commented, *'...our kids are frightened of the police'* another participant agreed, stating *'I've seen a little boy, he run when he see coppers. He don't like police.'* Participants also raised the concern that there is *'a lot of domestic violence going on'*, so a collective fear of police in the community in this context is a risk that victims may be too scared to report domestic violence.

While this was a clear priority identified by the community, it did not directly relate to preventative education activities for preschool children.

### Making the delivery of CHIPP work for the community

Participants identified interesting ways to get children and families involved and engaged in learning about injury prevention. When speaking together about how we get children engaged, one participant suggested, *'and maybe we can, like, give them all the head gear or design our own head gears'*. Other participants spoke about designing helmets, running interesting and engaging events and identified the importance of having playgroup run at different locations, *'like, maybe having playgroup at the pool...'*. Participants also discussed safety messaging and what they did and did not find receptive. Participants identified different modes of programme delivery that were utilised in the CHIPP.

### We see injuries happen

Participants identified several areas in the community where injuries occurred, activities that children participated in where injuries could occur, and potential reasons why children were not consistently wearing safety gear, that is, helmets.

### Once you knew what to do, you were all right

Participants identified the importance of having knowledge about injuries and passing it onto their own families and communities. There was discussion of fear around what to do when your child was injured and how speaking with professionals that had knowledge of what to do when injuries occur eased their

fear, *'But once you knew what to do, you're all right. Yeah.'*, *'But once I knew what to do, I was right, you know?'*.

This part of the yarns provided participants with knowledge of injury prevention to see what they already knew and what they were interested in.

From the overarching inductive themes, four injury topic themes were settled on through the codesign process: home safety; road safety; sun safety and water safety. As this project was focused on unintentional injury, 'community safety' was not included in the programme topics as the yarns focused on issues less relevant to preschool aged children.

### Home safety

Participants identified the importance of safety in relation to first aid and preventative measures. In addition to concerns raised around bath safety, power points, stoves and hot beverages, participants also raised concerns about accessibility to safety equipment for the home and in some cases poor maintenance increasing the risk of injury for children. Participants also identified the importance of safety in relation to first aid and preventative measures.

### Road safety

During yarns participants discussed car seat safety, accessibility to car seats, and knowledge of car seat maintenance. Once a participant said, *'... car seats go out of date...?'*. Additionally, participants identified issues with footpath safety and the risks of children and families having to walk on the roads where there were no or poorly maintained footpaths.

### Sun safety

Participants discussed sun safety in relation to the impact of heat and public spaces. For example, participants discussed the problematic nature of play equipment and the skate park being made from metal and not having covers to protect from the heat, resulting in children being burnt, or unable to use the equipment at all.

### Water safety

Participants strongly identified with this theme due to an incident that had occurred in the community preceding the yarns. Additionally, some participants were able to contribute personal stories linked to water safety. Discussions of structured playgroup sessions based at the pool were supported by participants, for example, mums and bubs swimming classes. Participants spoke positively about this idea, as there was limited or no access to this style of programme for Aboriginal families in Walgett.

### Informing the development and implementation of the CHIPP

The resulting CHIPP is an unintentional child injury awareness and education programme that allows Goonimoo staff to:

- ▶ Educate families through raising awareness around the risks of unintentional injuries by participating in engaging activities in familiar settings.
- ▶ Holistically supporting parents/families/carers to adjust behaviours to reduce risks.

### Informing the development and implementation of the CHIPP

A collaborative approach was taken to ensure the sustainability and reach of the CHIPP. Through conversations with WAMS, YN and UNSW, it was jointly decided that to improve suitability and sustainability, or continued implementation of the programme beyond the research period, service delivery should be embedded

in the existing services with prior relationships with families and to adopt a model of capability building for existing staff rather than bringing in outside people to deliver injury and prevention services. Additionally, the importance of Indigenous leadership from the community was integral to ensure best practice within Indigenous health research.

The early childhood expertise and valuing of cultural knowledges (Gamillaraay) specific to the location are a central tenet of the programme. Goonimoo runs during school terms, as such each term focuses on a key theme to integrate knowledge: water safety; safety around the home and road safety. Each term includes Gamillaraay knowledges incorporated into programme outputs through language and song. Goonimoo staff and coresearchers AT and TS participated in language courses to ensure that correct language and knowledge were incorporated into the content of the CHIPP. An additional key component of the programme is to engage the broader community in this area through community safety events, promotion and publication.

### Resources developed

The collaboration found that to design a successful unintentional CHIPP, it was necessary to create resources that would be used to guide implementation in a concise and interesting way. As such, four documents (three instructional manuals and one delivery manual) were codesigned and produced by the CHIPP teams.

Field notes taken during codesign meetings from June 2019 to January 2020, and data collected and analysed from the October 2019 yarning groups highlighted the need for a structured approach to embedding injury prevention skills and knowledges into the Goonimoo playgroup based on expertise from Aboriginal early childhood educators on the effectiveness of play-based learning and methods to engage families in education. The structured approach agreed on was the development of a programme user manual, that would be used as a guide for Goonimoo staff to provide evidence-based injury prevention information to families in an engaging and appropriate manner for an early childhood setting.

As documented above, injury topics were discussed with stakeholders throughout the codesign process, and the agreed injury focus topics were used to structure the programme. These injury topics were then used to structure the main resource for CHIPP, which culminated in a programme manual. Gali (water safety); Goondi (home safety) and Yurrun (road safety) were the final injury topics that were addressed in detail as a part of the CHIPP. Each theme denoted the topic that would be covered in each term with instructions for early childhood educators on how to facilitate this programme. Complementary initiatives aligned with the injury topics were also run throughout the course of CHIPP; child restraint fitting training for WAMS staff and seat installation for community members at Goonimoo open day; swim instructor training for Goonimoo staff to run water safety sessions at the pool; and home safety education for Goonimoo staff at Kidsafe NSW shared with families and community at Goonimoo open day.

### DISCUSSION

This paper has documented the process of codesigning an unintentional CHIPP with an ACCHO. It has highlighted the importance of flexibility when working with the community in a collaborative way utilising a codesign approach. The iterative nature of codesigning programmes such as CHIPP has provided insight into the necessity of the flexible nature of this approach. The way in which the CHIPP was guided by

environmental factors (fires, floods and COVID-19), participant feedback and team development demonstrated the ever-changing nature of codesign, the ability to pivot with changes as they occur.

Initial aims were to codesign a programme with participants, namely Aboriginal parents and families attending the Goonimoo mobile children's playgroup. However, as the data showed, the true codesign at this formative stage occurred between the broader collaborating group, the Aboriginal early childhood educators employed through WAMS, and the UNSW research team, the lead researcher NPW and injury experts, while integrating feedback from participants gathered through initial yarns and programme feedback. This demonstrated an interesting shift in applying a codesign approach to designing a preventative child injury programme. This shift demonstrates that codesign methods are iterative and must be flexible to ensure that key stakeholders remain active throughout design processes.<sup>5</sup> The research skills were complementary to the knowledge and expertise of Goonimoo educators rather than overbearing and directive. This codesign process allowed the vision of Goonimoo educators to be at the forefront of design and delivery. The privilege of working closely with an ACCHO meant that the UNSW CHIPP team members were guided by place-based expertise and knowledges. Working in this way, through codesign, meant that the work was led by the Aboriginal staff at the ACHHO rather than a university-led approach.

During the formative design and implementation stages of the CHIPP, there were several environmental factors that also contributed to the changing dynamic of the team approach: COVID-19, drought, fires and floods. The iterative nature of codesign allowed for CHIPP to pivot strategically to ensure that the voices of participants were still informing the design, while the codesign was occurring not directly between participants and UNSW, but with a broader team privileging the knowledges and leadership of Aboriginal women on the research project. Further, the injury priorities revealed throughout the codesign process were largely aligned with injuries that are prevalent in Aboriginal children in rural and remote settings (road injury, injuries in the home, drowning) as well as community safety and adverse police interaction. This highlights the importance of community voice and lived experience—communities know what impacts them most.<sup>28</sup>

The resource manuals produced for CHIPP are further evidence of the codesign process between the UNSW and Goonimoo CHIPP teams. The iterative nature in which they were developed demonstrated the strength of WAMS and Goonimoo staff, specifically the way in which their service was able to pivot in times of crisis, COVID-19, floods and fire. It also demonstrates the importance of active Indigenous leadership in community-based research projects. The development of the CHIPP manuals is a testament to the way in which Indigenous knowledges and the experience and expertise within existing programmes, held by Indigenous staff within ACCHO's, can be used to embed preventative injury information into programmes for the community.

This paper describes the process of codesigning a CHIPP within a research partnership group, specifically with an ACCHO. A genuine collaborative process privileges the knowledges of Aboriginal peoples throughout and at all levels. The first author is an Aboriginal (Kooma) woman and researcher at UNSW. Our codesign process highlights that community-led research and programme design must have active Indigenous leadership throughout and at all levels. The CHIPP project sought to achieve this by utilising a codesign approach shaped by

Indigenist and decolonising research methodologies and Indigenous methods of research.<sup>21 35</sup>

Taking these approaches within contemporary Aboriginal and Torres Strait Islander research settings is of the utmost importance: no longer can researchers or institutions defer to a lack of knowledge or awareness in relation to proper and authentic conduct when proposing or conducting research with Aboriginal and Torres Strait Islander communities or population groups. Ways to work with Aboriginal and Torres Strait Islander peoples have been clearly articulated over 30 years, by Aboriginal peoples from the community and within academia.<sup>15 26 35–37</sup>

Australia is a colony that has developed through invasion and ongoing colonisation. Due to the lasting impacts of this, there are many complex issues faced by Aboriginal and Torres Strait Islander peoples.<sup>11 38</sup> However, through decolonising processes, such as those described here, these issues can be overcome through Aboriginal and Torres Strait Islander led research, programme design and control. Socioecological theory emphasises the contexts and systems within which child injuries occur and thus the different levels at which interventions may be targeted to prevent child injury: children, their family, peer group, community, institutions and organisations and the broader social, political and environmental factors that influence their lives, including culture, belief systems and social norms.<sup>38–40</sup>

The health of Indigenous peoples is intrinsically linked to the historical and contemporary context in which we, as lead Aboriginal author and research partners, live, work and exist. While chronic health conditions and acute health concerns impact Aboriginal and Torres Strait Islanders and need to be addressed, at the individual and community levels, it is the systems level which presents the greatest challenges.<sup>41</sup> Systems shape the way in which care is provided, but are often underlined by racist assumptions and practices that limit the autonomy, choice and self-determination in the healthcare delivered to Indigenous peoples.<sup>42–44</sup> Until we can control the health measures that are designed to ‘fix’ our peoples and communities, nothing will change. Without consistency in funding to support Indigenous-led measures, our communities will continue to receive half measures that line the pockets of people and institutions far removed from those they ‘aim to help’.

The social determinants of health underlying the gross health inequities between Aboriginal and non-Aboriginal children are well documented.<sup>45</sup> In relation to unintentional child injury, the social determinants help to explain the unequal division of access to services, safe and appropriate housing, and goods that impact the risk of unintentional injuries. However, the solutions for addressing these inequities are still out of reach for most Indigenous children. Preventative interventions in public health, for example, are often shaped by behaviour change models. But changing behaviours also relies on having access to equipment and resources that enable children to be kept safe. The CHIPP directly addresses this issue in a contextually tailored approach in partnership with an ACCHO embedded in a remote community, and in doing so has identified a need and a culturally safe avenue through which unintentional injury prevention can be made accessible for Aboriginal families.

Aboriginal community control is central to Aboriginal success. Aboriginal communities have the demonstrated capacity to identify areas of need and establish the priorities that will yield holistic success.<sup>46</sup> Until our communities have complete control over the priorities and funding that drive research, institutions and researchers must commit to community-led and authentically collaborative research projects. This process takes time which needs to be factored into the timeframes of grants.

Partnerships are essential for successful community-led public health interventions. When seeking to understand the importance and breadth of these partnerships, it is often imperative that as a research team, institution or interested stakeholder, there is significant effort to understand what partnerships exist. Simply, it is important to explore existing partnerships and relationships within the community you hope to collaborate with. Fortunately for the CHIPP project, there were many years of partnership building that preceded our project, and we were invited to the community by the DEG through its existing YN partnership.

## CONCLUSIONS

The process of codesigning the CHIPP project ensured that the intervention design, delivery and outputs were actively controlled by local Indigenous community leadership. The development of the CHIPP provides useful insights into the way in which western safety and injury information can be successfully adapted to ensure that the messages are appropriate for the specific community. It has demonstrated that codesign can be an effective approach in responding to and meeting the needs of community and partners. A one-size-fits-all approach does not work for Aboriginal and Torres Strait Islander communities; we are not homogeneous.

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