



**BICYCLE
NETWORK[®]**

We've got your back.

**MONITORING AND
EVALUATION OF
VICTORIA'S POP-UP BIKE
LANES**

KEY RECOMMENDATIONS

A BICYCLE NETWORK SUBMISSION

JULY 2021



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Position: Research and Policy Advisor

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Bicycle Network acknowledges the traditional owners of the land on which we work and live and pay our respects to the first peoples of this country, their culture and elders, past, present and emerging.

Who we are

Bicycle Network is one of the leading member-based bike riding organisations in the world. We are committed to improving the health and wellbeing of all Australians by making it easier for people to ride a bike.

Operating nationally, we have a measurable, successful and large-scale impact in community participation and the promotion of healthy lifestyles through bike riding.

We achieve this through:

- improving the bike riding environment by working with government at all levels to provide better infrastructure, legislation, data, policies and regulations
- delivering successful, large-scale behaviour change programs such as Ride2School and Ride2Work
- providing services and insurance that support bike riders through nationwide membership
- running mass participation bike riding events such as the Great Vic Bike Ride and Around The Bay
- being a key national spokesperson on issues related to cycling and physical activity

Bicycle Network are ready to assist local and state governments with the installation and evaluation of current and future bike lane facilities. If you need our help to achieve the best outcomes for pop-up bike lanes, please contact us.

Dr Nicholas Hunter

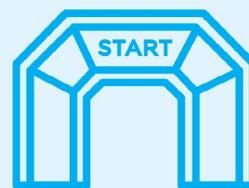
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Nearly 50,000 members



150,000 event participants since 2012



Providing bike services to 125 councils and shires



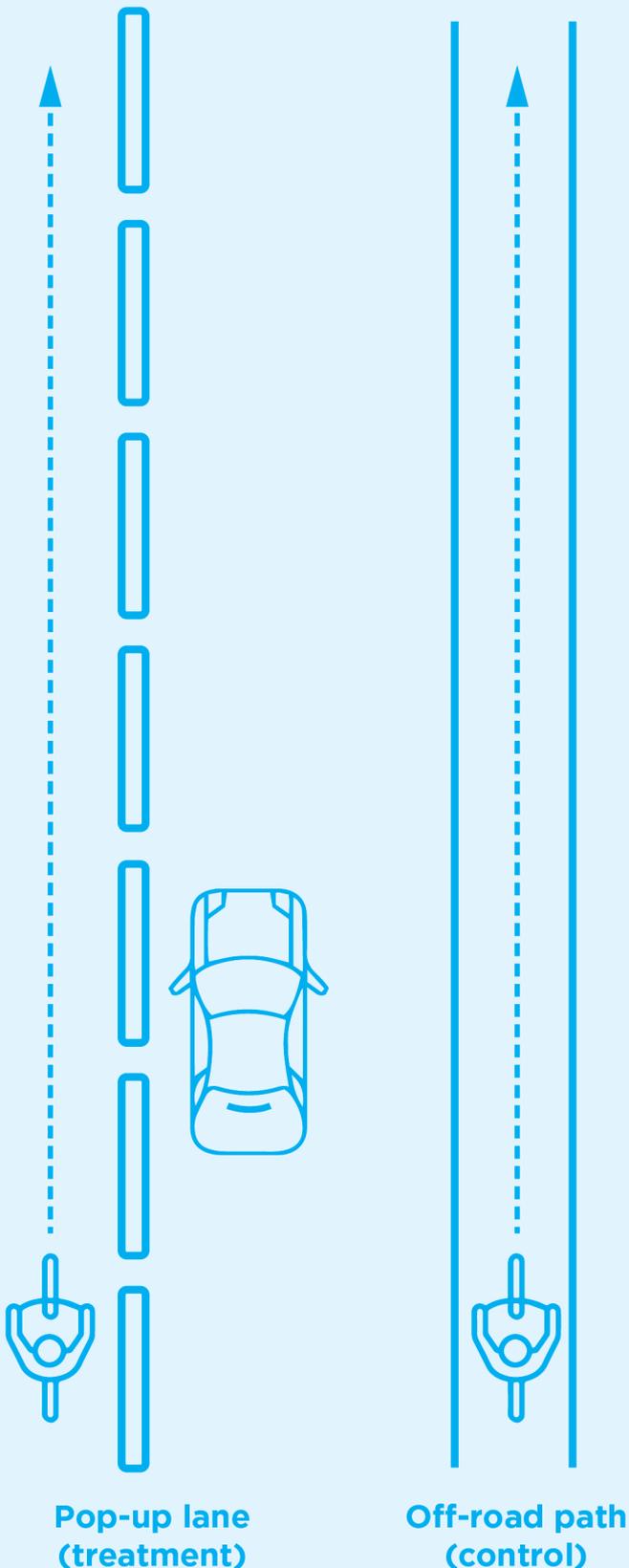
Providing parking for over 2250 bike riders each day



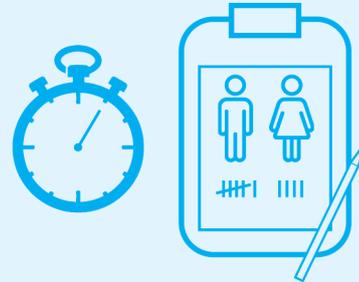
Promoting active travel at over 1800 schools since 2007

Our five tips for measuring pop-up lane success

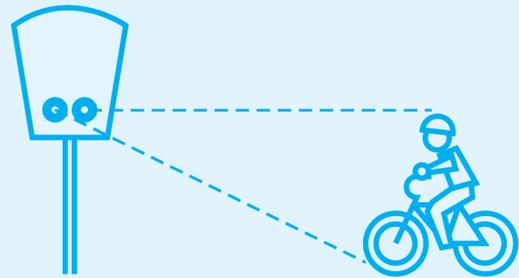
1. Measure a 'control' site



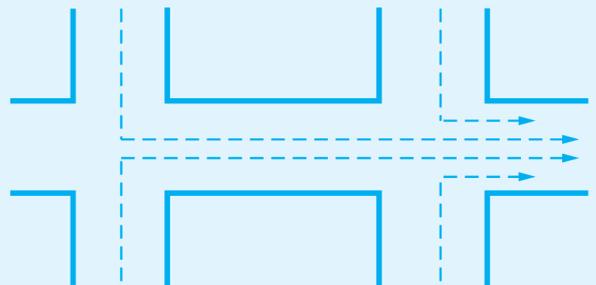
2. Use mixed methods



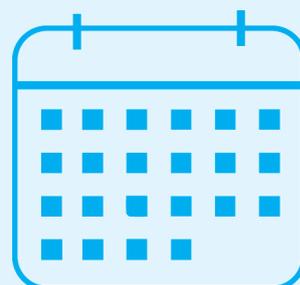
3. Use modern technology



4. Target points of high flow



5. Collect data for 12 months



A fair go for pop-up bike lanes

The COVID-19 pandemic has provided Australia with a unique opportunity to rethink its urban mobility plans. Active transport should be an increasingly important feature of our future planning, not only for decongesting our roads, but also for its positive effects on costs of living, wellbeing, and the environment.

In response to significant boosts in bike riding activity last year, the Andrews Government announced that 100km of 'pop-up' bike lanes will be installed across the Melbourne metropolitan area. At the time of this report, 10km of bike lanes have been rolled out along Heidelberg Road, Northcote, and a number of new treatments have been made within the City of Melbourne. This is in addition to more than 250 kilometres of riding and walking paths previously promised for the state.

This is a step in the right direction. A means through which we can simultaneously satisfy targets across the *Victorian Cycling Strategy 2018-2028*, the *Victorian Public Health and Wellbeing Plan 2019-2023*, *Plan Melbourne 2050* (Policy 3.1.6), and *Victoria's Climate Change Strategy*.

"For Melbourne to continue to be a globally connected and competitive city with strong and healthy communities and higher social and economic participation, the share of trips by public transport, as well as active transport modes such as walking and cycling, must increase."

Plan Melbourne 2050, p. 62

"Neighbourhoods designed to support walking, cycling and public transport use foster positive social connections, promote feelings of safety and belonging, stimulate local business activity and can reduce the environmental impacts associated with car emissions and traffic congestion... increasing the share of trips made using sustainable transport modes (such as walking and cycling) is imperative."

Victorian public health and wellbeing plan 2019-2023, p. 34

"We are aiming for 25 per cent of trips to be by foot or cycle by 2025"

Victoria's Climate Change Strategy, p. 39



There will be some resistance. With greater numbers of vehicle drivers on the road, and lower public transport patronage, there is a lot riding on the success of the pop-up bike lanes for curbing road congestion. However, we can't let short term pressures make us lose sight of the long term rewards.

This is where good data is invaluable. A comprehensive, scientifically robust evaluation of pop-up bike lane treatments will be critical for measuring and marketing their success. In particular, we will be able to compile a detailed understanding of how the greater population perceives the pop-up bike lanes, rather than being persuaded by the outspoken few.

The need for data goes beyond simply measuring the success of the pop-up bike lanes. In their Climate Change Strategy,

the Victorian government have stated their aims for 25 per cent of trips across the state to be by foot or bike by 2025. To achieve this, we require strong policy that shapes Victoria's bike riding experience. Strong policy requires strong data, and this needs to start now.

To assist state and local governments with the roll-out and evaluation of pop-up bike lane treatments, Bicycle Network have provided five key recommendations for measuring the effects of pop-up bike lanes in a robust and systematic manner. These recommendations are offered in kind to ensure a 'fair go' for the new lanes, to help foster in more active transport focused urban planning, and to encourage a thorough and standardised approach to bike lane trial evaluations.



"We will increase the number, frequency and diversity of Victorians cycling for transport by investing in a safer, lower-stress, better-connected network, prioritizing strategic cycling corridors [and] making cycling a more inclusive experience."

Victorian Cycling Strategy 2018-28

"...roads that service more intense land use will prioritise walking, cycling and public transport."

Plan Melbourne 2050, p. 67

Recommendation 1

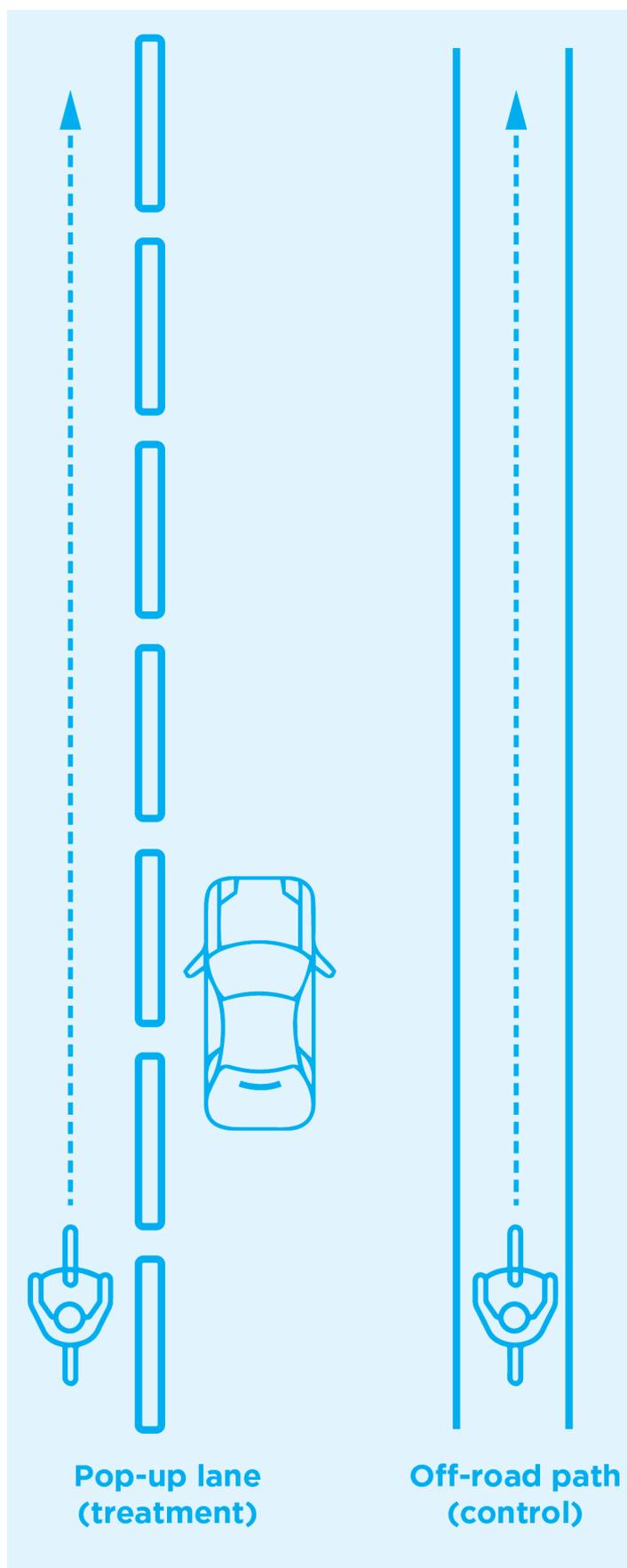
Identify and measure appropriate 'control' sites

In conducting a fair and robust evaluation of pop-up bike lane treatments, it is important to identify and measure a nearby untreated or 'control' site (right).

The main reason for measuring a control site is to account for outside effects. For example, poor weather is likely to reduce riding activity on both the pop-up bike lane treatment and the control. In this case where riding activity is low at each site, we cannot conclude that the pop-up bike lane has experienced poor rider uptake. Conversely, if riding activity is high on both the pop-up and control sites, this may be due to outside effects (however, we can make a case that the pop-up bike lanes have accommodated the needs of people eager to ride).

Off-road share paths are ideal candidates for control sites. As well as having pre-existing and consistent bike rider patronage, some insights may be gained regarding peoples' riding environment preferences (on-road versus off-road). In the context of the existing Heidelberg Road pop-up bike lane, a suitable 'control' example may be the Main Yarra Trail.

Bicycle Network recommends that control sites are identified within the proximity of a proposed pop-up bike lane prior to the installation and evaluation periods. The inclusion of such data will strengthen the reliability of the results, and favour an un-biased view of the pop-up bike lane treatment.



Recommendation 2

Use a mixed methods approach for evaluation

One of the key measures for the pop-up bike lanes will be increases in bike riding activity, relative to a control. However, a detailed evaluation should comprise a combination of quantitative and qualitative data collection.

When collecting quantitative data, much of the focus will be on the raw volume. However, it is extremely important to consider the demographic characteristics of riders. One of the great challenges in active travel is increasing the diversity of people riding bikes and fostering inclusivity. This should form the basis of current and future active transport interventions and should be included as evaluation measures and benchmarks for success.

Bicycle Network therefore recommends that the age and gender of people riding bikes on pop-up bike lanes should be collected contemporaneously with raw volume data.

Qualitative data, such as intercept surveys, will be essential for evaluating community attitudes to pop-up bike lane treatments. Collecting qualitative data not only allows us to compile responses in a more systematic and quantifiable manner, it means that we can accommodate the views across a diverse range of demographics, such as women, children, older people, commuters, and delivery riders.



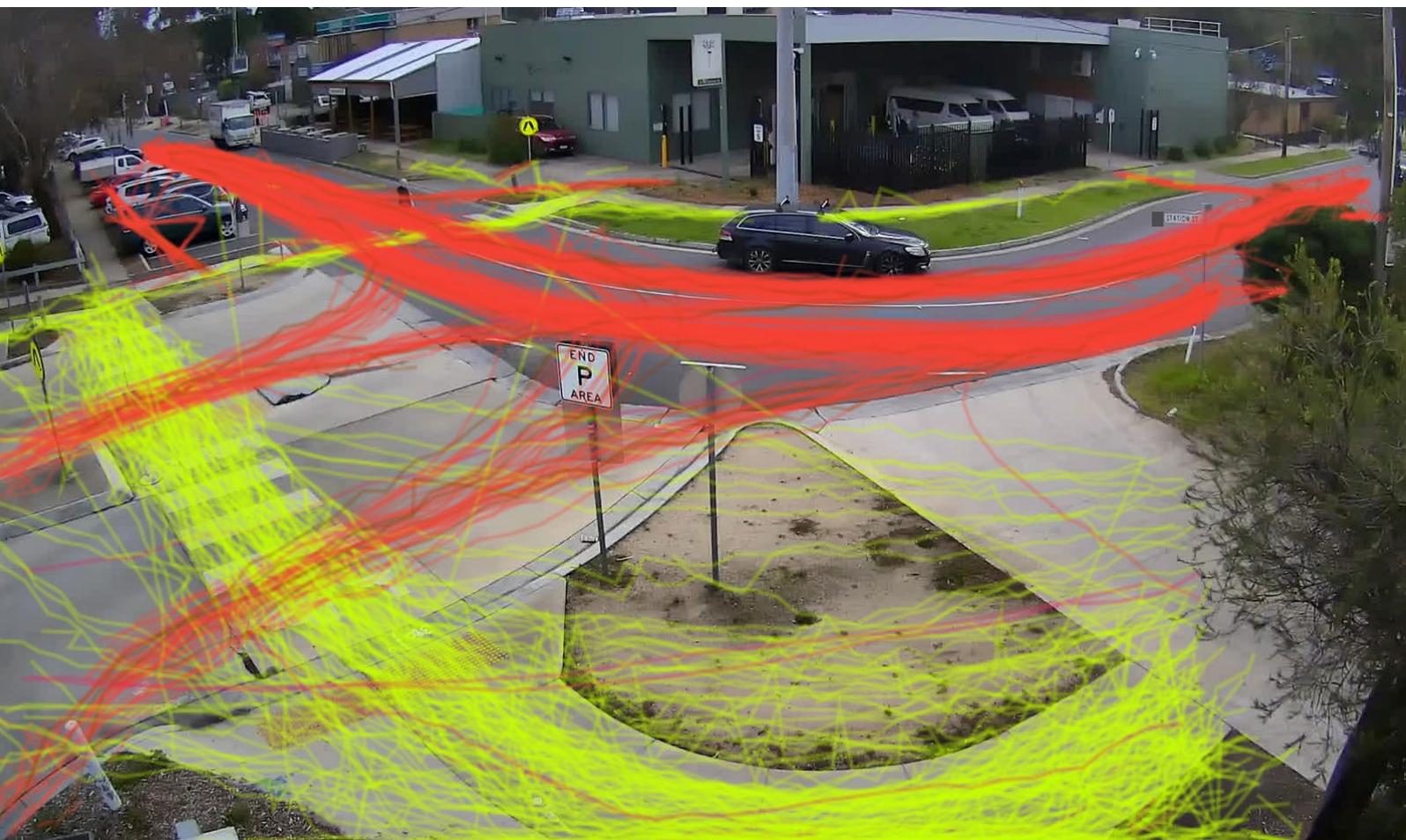
Recommendation 3

Prioritise modern counting technology

The reality is that no single traffic counting method is flawless. Traditional counting methods, such as tube counters, are able to measure directional movements and speeds over long periods but are susceptible to missing important rider activity occurring outside the tube (e.g. on roads or footpaths). Observational counts by volunteers can resolve this whilst also collecting demographic data (e.g. gender, age). However, volunteers can only be activated for a few hours, which may carry logistical burdens. Data may also be impacted by poor weather on the scheduled survey date.

When modern technology is employed, such as AI-based counters, these combined issues are minimized. AI-based counters can gather long term data over wider areas, whilst simultaneously classifying road users and tracking their individual movements (below). These methods can therefore provide a more detailed window into the bike riding experience, such as where people are riding, and their interactions with pedestrians and cars.

Utilising these modern technologies will allow state and local governments to go above and beyond when evaluating the entire road environment.



Road user tracking data from Bicycle Network's Artificial Intelligence Road Surveys (AIRS) service (pink lines: bike movements; yellow lines: pedestrian movements)

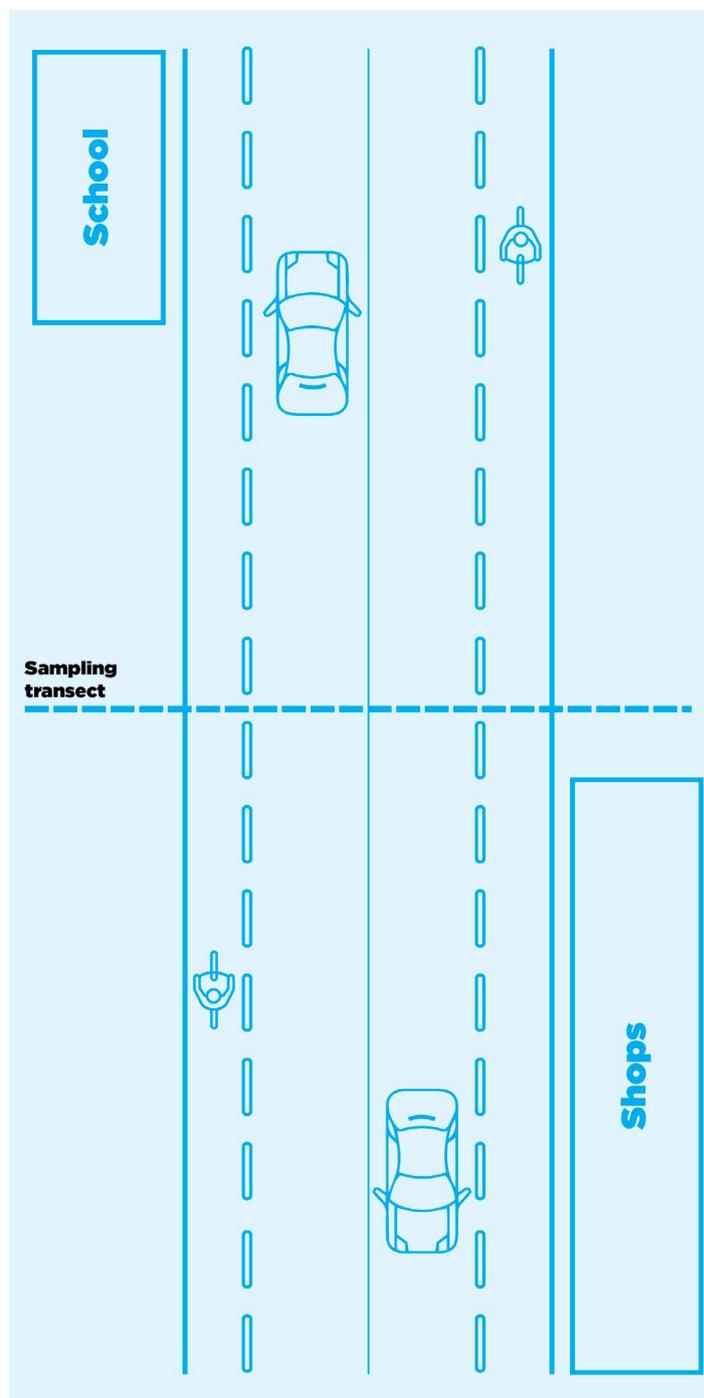
Recommendation 4

Ensure data collection points are strategically placed

Selecting an area for data collection must be undertaken with careful consideration. Most of the roads designated for pop-up bike lane treatments will typically have high pre-existing bike rider patronage, and the key entry/exit points and adjoining bike corridors must be recognized prior to the trial commencement.

It is essential to position data collection points in areas that are likely to accommodate the highest level of bike traffic flow. Consideration should be given to the location of key destinations such as schools, business and retail districts (right). In addition, the location of existing bike facilities should be accounted for, such as an adjoining off-road bike path.

Determining the most appropriate data collection points can be undertaken during a pre-trial site visit. Route preference and directional data, such as Strava Metro or Bicycle Network's Super Counts program, may also be helpful in determining the best survey points.



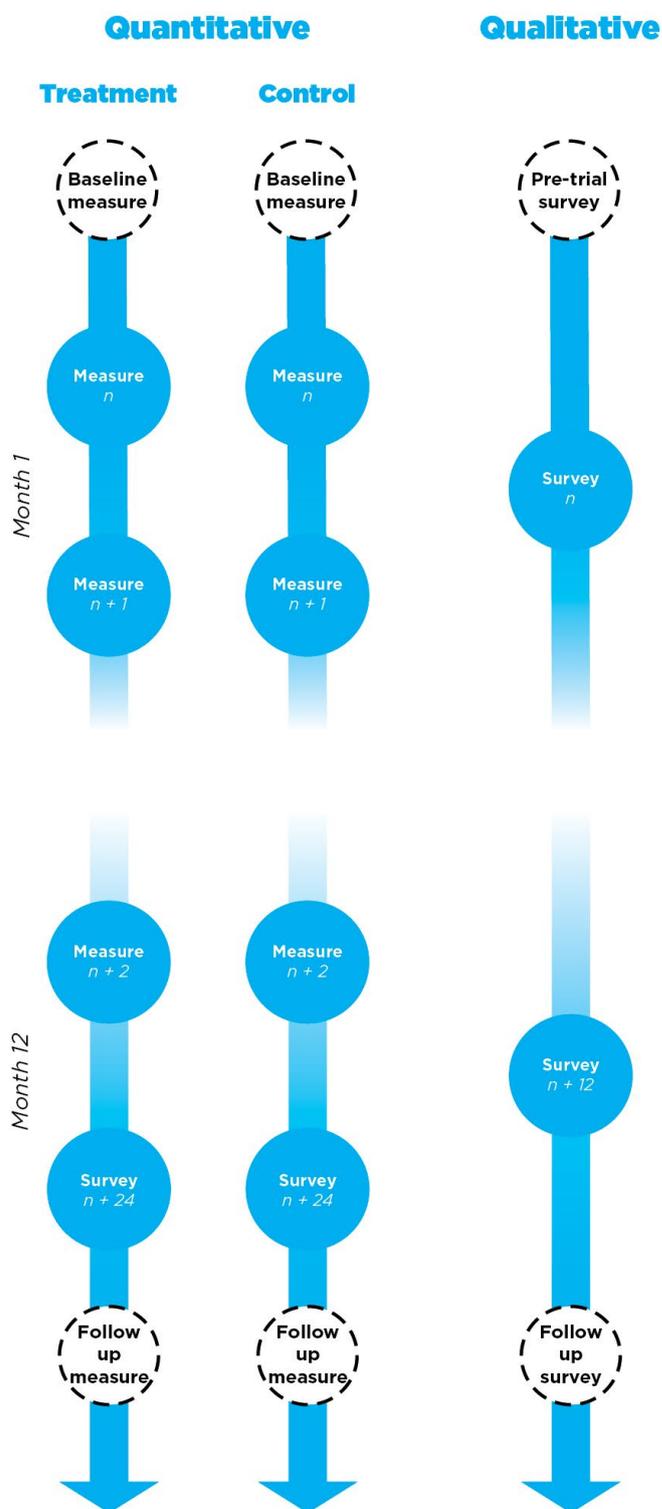
Recommendation 5

Establish a 12-month timeline with periodic measurements

A strong evaluation of pop-up bike lanes should be long enough to account for seasonal variations in riding activity. Climate, weather patterns, school terms and daylight hours change throughout the year and will have an effect on the propensity for riding a bike.

A 12-month timeline for measuring riding activity on pop-up bike lanes will be the most appropriate for accommodating these environmental effects (right). A baseline assessment at the treatment and control site for each nominated evaluation method should also be undertaken prior to pop-up installation. A post-trial or follow-up assessment should also be considered for assessing long-term bike riding behaviours.

Quantitative data (i.e. traffic counts) should be undertaken in bi-monthly increments, in the case of volunteer counts, or per-day in the case of tube and AI-based counters. Qualitative data (surveys) should be collected in monthly or bi-monthly increments, as people's motivations for using pop-up bike lanes may have changed with time.



Example of a 12-month timeline that incorporates both quantitative (treatment and control) and qualitative assessments.

Thinking beyond the numbers

If we want to build a strong, enthusiastic and inclusive bike riding community, we must recognise that there is more to be done than laying down new lanes. Behaviour change programs and promotional initiatives are required to encourage our communities that riding on pop-up bike lanes is a safe and enjoyable experience.

Bicycle Network has a range of successful and proven behaviour change programs. Since 2007, our Ride2School program has empowered parents and children to engage in active school travel. As of 2021, **over 3500 schools** have been involved with the

program. Our Ride2Work yearly initiative encourages Australians to commute by bike and helps workplaces make it easier for workers to ride.

Bicycle Network has the skills and experience in rolling out behaviour change programs. Most importantly, we have a firm understanding of the bike riding experience in Australia, and of the shared perspectives of people riding bikes. We are ready to support state and local governments in promoting current and future pop-up bike lane projects.

“Infrastructure alone isn’t enough to deliver a boost in cycling participation: we also need a change in attitude.”

Luke Donnellan, Former Minister for Roads and Road Safety, Plan Melbourne 2050





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