

## **Design, transport hubs and health**

***A literature review to support the Health Impact Assessment of the Christchurch Transport Interchange Project***

### **Authors**

Siobhan Storey (Christchurch City Council) and Kaaren Mathias (Canterbury District Health Board)

## **Table of Contents**

Design, transport hubs and health.....	1
A literature review to support the Health Impact Assessment of the Christchurch Transport Interchange Project.....	1
Table of Contents .....	2
Executive summary .....	3
Introduction .....	7
Methods .....	9
Current state of play – Christchurch and Transport.....	11
Road traffic safety .....	12
Air and noise pollution .....	13
Accessibility .....	13
Active transport .....	14
Community engagement.....	17
Social connectedness .....	23
Access to services.....	25
Summary –	
References .....	27

## ***Executive summary***

The Christchurch City Council, Environment Canterbury and Land Transport New Zealand are working in collaboration to design and build a new Central City Transport Interchange. Transport in Christchurch is organised with the Christchurch City Council providing infra-structure (such as the existing Bus Exchange building), Environment Canterbury coordinating the overall transport system (including governance of the Bus Exchange) while private contractors provide actual bus services. The current Bus Exchange located on the corner of Colombo and Lichfield Streets is a victim of its own success: it is now too small for the amount of bus passengers making it overcrowded and congested at peak times. There are also safety concerns for the users, poor air and noise quality, and some access problems for mobility impaired users. A new purpose-built Transport Interchange sits well with the Urban Development Strategy and growing demand for bus services as well as other transport options.

This paper seeks to summarise the main pertinent issues relevant to transport interchange design and health determinants at the architect briefing stage. The health impacts of transport node design considered here are:

- Safety.
- Air and noise pollution.
- Accessibility for mobility impaired
- Active transport (including links for pedestrians and cyclists).
- Access to services.
- Social connectedness.
- Community participation and engagement throughout infrastructure design.

The first three impacts are considered only briefly as it is anticipated that they would be considered comprehensively by the architects in their design processes.

- Active transport and physical activity are key for good health. They can be facilitated and promoted by good transport node design: features to ensure services have good linkages for cyclists and pedestrians should be included;
- Community engagement throughout the design process ensures the community feels a sense of ownership of the facility, respects it and are happy to use it. Active community participation and consultation in urban design and related infrastructure projects can lead to improved access to services and healthy lifestyles;
- Social connectedness is important to peoples' mental health and wellbeing and can be enhanced in a transport hub by provision of welcoming spaces where people can meet and interact as well as facilities such as shops, places to buy food and drink, obtain cash and hire lockers for luggage. Such facilities allow passengers to make productive use of time and encourages the use of the hub as a meeting place.

- Accessibility to services - co-location of key services in and around the hub such as those related to employment, health and educational facilities could have a number of health benefits leading to the reduction of health inequalities.

## **Recommendations**

### **Active Transport**

#### **Walking**

1. Wayfinding and signage to and from the Interchange as well as within it should be clear, with the following design features:
  - Aural and tactile clues should be available for the visually impaired;
  - Large and well-placed using internationally recognised pictorial signs;
  - Information in different languages should be available;
  - Pedestrians should be separated from traffic;
  - Signage to and from the Interchange from major Central City destinations provided with clearly identified walkways and walking map.
2. The environment should be welcoming, well-designed and aesthetically pleasing:
  - Attractive, inspiring and culturally appropriate Public Art should be displayed;
  - The interior should have good amenities, be well-lit, furnished in warm colours and have water features, greenery and transparent walls;
  - People should feel safe within the building with provision of CCTV cameras;
  - There should be multiple, well signposted pedestrian entry and exit points.
3. The environment should be designed for good access for mobility impaired:
  - Walkways should be wide to accommodate wheelchairs, walkers, Zimmer frames, prams and pushchairs with provision for mounting and alighting from buses;
  - Bus platforms should be also large to accommodate people who are mobility impaired as well as those with significant luggage;
  - Inexpensive, secure luggage storage areas should be provided.
4. Access to and from the Interchange should be safe and simple, facilitated by pedestrian crossings, overbridges and/or underbridges on surrounding streets.

#### **Cycling**

1. The Interchange should be an inviting and hospitable facility and access into it should be easy. Design features to facilitate this include:
  - Multiple cyclist entrances and bike stands;
  - Ramps for easy access;
  - Provision of showers and a cycle centre;
  - Clear signage to indicate allowed routes for cyclists, and to minimise cyclist-pedestrian interaction
2. Secure, easy use storage for cycles should be provided. Specific design features supporting this include:
  - Secure and convenient lock-up and/or stands;
  - Individual stands with adequate space to facilitate padlocking;

- Cycle stands and lock-up should provide space for cycles with trailers with CCTV monitoring to increase security.
3. Traffic flow design that facilitates cycle access and safety around the Interchange with the following measures:
    - Provision of well-marked cycle lanes on all sides of the Interchange, ensuring there is at least one access route that excludes cars as footpaths do, for use by heavily loaded, young and less confident cyclists;
    - Reduce traffic flows and provide traffic calming in streets around the Interchange;
    - Minimise vehicle/pedestrian interaction with cyclists.

### **Community Engagement**

1. That engagement with Māori should be undertaken using multiple and diverse opportunities for feedback, including the He Oranga Pounamu Community Consultation Forum.
2. That Papatipu Runaka representatives are invited to a Ngai Tahu consultation forum.
3. That groups whose voices are heard less often should be consulted with in a genuine and creative way and particularly should include children and young people.

### **Social Connectedness**

The interchange should facilitate social connectedness. Specific design features to achieve this could include:

- Plenty of comfortable seating in spacious areas, with the seating grouped attractively to facilitate social interaction;
- Areas for eating and drinking including different kinds of premises (eg ‘tearooms’ as well as a café);
- Children’s play area with tables surrounding it;
- Natural lighting and water features such as aquariums or a rooftop garden or atrium;
- Opportunities for long distance social networking eg Internet use / wireless hotspot;
- Spaces for public events such as live performances, art displays, information boards, gigs etc.

- 

### **Access to Services**

1. That within the Interchange the following services are available:
  - Affordable and healthy food and drink;
  - Facilities for mobility impaired people, children, parents and babies including a play area;
  - Non-commercial facilities for meetings and networking.
2. That services that support community development, education and health are located within one block of the Interchange: these could include services such as Actionworks, a public library, an affordable supermarket, a gym, a place for teenagers/skate park and offices of key support government agencies.

## **Introduction**

The primary function of transport is in enabling access to people, goods and services. In so doing it also promotes health indirectly through the achievement and maintenance of social networks. Some forms of transport, such as cycling and walking, promote health directly by increasing physical activity and reducing obesity. Lack of transport may damage health by denying access to people, goods, and services and by diverting resources from other necessities. Furthermore, transport may damage health directly, most notably by accidental injury and air pollution.

Acheson Report, 1998 (Acheson 1998)

The Christchurch City Council in collaboration with Environment Canterbury and Land Transport New Zealand is proposing to design and build a new Central City Transport Interchange. This development is part of the larger Urban Development Strategy (UDS) (CCC 2007) which includes promotion of public transport, demand management of traffic, improved links between modal transport and promotion of active transport. One of the key areas for intensification identified in the UDS is with an anticipated additional 30,000 residents in the Central City area by 2026. In addition the Central City is recognised as a major cultural, economic and social hub for the South Island, with the UDS seeking to reinforce and enhance this position.

Current transport in Christchurch is organised with the Christchurch City Council providing infra-structure (such as the existing Bus Exchange building), Environment Canterbury coordinating the overall transport system (including governance of the Bus Exchange) and with private contractors providing actual bus services. A report on the current Bus Exchange located on the corner of Colombo and Lichfield Streets has described a number of significant problems: these include it being too small leading to crowding and congestion at peak times, safety concerns, poor air quality, limited signage, poor design. The report suggests Bus Exchange as being in need of urgent review (Boffa Miskell 2006). This work area is now being scoped and a new location for the Christchurch Transport Interchange Project has been identified.

The UDS partners (Christchurch City Council, Waimakariri District Council, Selwyn District Council, Environment Canterbury and Transit New Zealand) have made a commitment to assessing local and regional government policies for their potential impacts on health and their suitability for formal health impact assessment. In addition there is increasing interest and desire to apply health impact assessment to key infrastructure projects. This developing enthusiasm for the application of HIA signals an urgent need to increase the capacity and capability of relevant agencies to be able to effectively apply health impact assessment methodology in a variety of forms.

Community and Public Health, a division of the Canterbury District Health Board holds responsibility for operationalising the DHB's obligations under section 23 (1) (h) of the New Zealand Public Health & Disability Act (2000) – “to promote the reduction of adverse social and environmental effects on the health of people and communities”.

HIAs are well aligned with the New Zealand Health Strategy's (2000) objective to assess public policies for their impact on health and health inequalities. The HIA Support Unit's role is to create capacity and increase the evidence base on HIA and is supporting this health impact assessment process from its "Learning By Doing" fund. It will build workforce capability in Canterbury DHB – C&PH and with partner agencies in the area including Christchurch City Council to ensure this approach is sustained.

This paper summarises the main health issues related to transport node design and health determinants. Health factors that we immediately think of that will be impacted by the Christchurch Transport Interchange Project (CTIP) design include safety, air and noise pollution and accessibility for the less-abled. Transport node design can also impact less obvious factors that affect health status. Poor transport can affect health determinants such as deprivation and social exclusion. Groups particularly affected by transport-related social exclusion include the elderly, caregivers of young children and low-income earners (Health Scotland 2007). People who are heavily reliant on public transport find it harder to travel to shops, to employment, healthcare and other services when public transport services are poor. Transport planners often do not think of the impact of their decisions on the less-advantaged, elderly and disabled (London Health Commission 2000; Health Scotland 2007).

Thoughtful design can reduce inequalities and serves the needs of the neediest members of Christchurch city (Gorman, Douglas et al. 2003). This review seeks to summarise explicitly the links between transport nodes and health – and consider how design can facilitate healthy options. The links between health and transport have been described clearly in many publications. Commonly identified health determinants are air quality, public transport, noise pollution, social cohesion, access to services, safety, accessibility, physical activity and social exclusion (Fleeman and Scott-Samuel 2000; Gorman, Douglas et al. 2000; Mason 2000; Gorman, Douglas et al. 2003; Health Scotland 2007).

The impacts of transport on health have been well summarised (Public Health Advisory Committee 2003); (British Medical Association 1997; Gorman, Douglas et al. 2000; Health Scotland 2007). A review of New Zealand evidence for the health impacts of transport provides detail on issues particularly of importance in this country (Kjellstrom and Hill 2002).

The following health impacts of transport node design were identified during a health impact assessment scoping and screening workshop in Christchurch on April 18<sup>th</sup>, 2008 (Mathias 2008):

- Road traffic safety.
- Air and noise pollution.
- Accessibility for mobility impaired
- Active transport.
- Access to services.
- Social connectedness.
- Community participation and engagement throughout infrastructure design.



Monitoring of indicators of healthy transport is also important. A Healthy Cities survey by the World Health Organisation reviewed the health effects of transport and how they can be monitored (Racioppi and Dora 1999). Indicators that can be used to monitor transport and health include:

- Numbers of accidents e.g. children, cyclists and pedestrians.
- Air quality.
- Numbers of kilometres of cycle ways and walkways developed.
- Noise levels.
- Efficiency and use of public transport.
- Car ownership.
- Cycling rates.

### **Goal**

To assist the Christchurch Transport Interchange project team by providing information on how to improve the health and well-being of the community and to reduce inequalities in health through healthy design and operation of the Christchurch Transport Interchange.

### **Aims**

- To provide evidence for links between health, environment and transport interchange facilities.
- To provide recommendations to maximise the positive and minimise the negative impacts of bus exchange design and operation on health and well-being.

### **Objectives**

- To broaden community participation and engagement in infrastructure planning and decision making.
- To strengthen partnerships through working intersectorally.
- To showcase the role of HIA as a key tool to increase health considerations in the early stages of infrastructure planning to consider design implications on health and well-being.
- To build capacity in knowledge and implementation of HIAs in Christchurch.

This review forms part of an initial briefing to the Christchurch Transport Interchange project architects looking at general features of transport interchange design and health. It will briefly overview transport node design and its impacts on safety, air and noise quality and accessibility for less-abled. While these are more obvious health issues linked to effective transport interchange design, we believe they are likely to be largely addressed through the project design process. This literature review will then primarily focus on the last four health determinants as less apparent and with significant potential to reduce health and social inequalities.

### **Methods**

A literature search was performed. The search included the following search terms: planning, public health, social connectedness and transportation, transport node, hub,

interchange these concepts were combined to locate articles where any 2 concepts were present. Citation searching was used to identify key papers and to follow subsequent publications; this was a particularly useful means of extending the search beyond the health literature and locating articles from planning and environmental journals. Further papers and reports were located in the grey literature, from review of the most relevant articles retrieved and through searches on Health Impact Assessment and other websites. Articles were included in the review if they dealt relevantly with the concepts of transport design and health.

## **Current state of play – Christchurch and Transport**

Christchurch is a city with higher cyclist and bus use than other large cities in New Zealand. Transport to work is dominated by use of the private motor vehicle with public bus, cycling and foot each used by approximately 5% of the population. Rising prices of petrol as well as increasing awareness of the importance of sustainable forms of transport however are leading to changing trends.

**Table One - Percentage Commuters in Christchurch 1991-2006 (based in NZ Census data) travelled to work the following ways: All figures are for the usually resident population who are employed and aged 15 years and over.**

Means of Travel	Christchurch	Christchurch	Christchurch	Christchurch
	1991	1996	2001	2006
Drove a Car / Truck / Van	59.3	60.9	60.6	60.2
Bicycle	8.9	6.7	5.7	5.1
Walked or Jogged	4.2	4.1	4.4	4.5
Public Bus	4.3	3.4	3.5	4.1
Passenger in Car / Truck / Van	4.9	4.0	3.4	3.6
Motor Bike or Power Cycle	2.4	1.3	0.8	0.7
Worked at Home	3.4	5.0	5.5	5.3
Did Not go to Work	10.6	10.8	12.4	11.5

### **Christchurch and Buses**

Bus patronage is growing in Christchurch. The current data for 2006/07 year is 15.79 million trips per annum an increase of 64% over and above the 9.57 million trips recorded in 1999/2000. A survey in September 2007 performed a count of passenger numbers at the Bus Exchange and this showed 11,775 people boarding and 11,643 alighting during the course of a typical weekday.

### **Christchurch and Pedestrians**

Christchurch is a pedestrian friendly city. Geographically it is flat with footpaths on nearly all residential roads. The Annual Residents Survey consistently shows that between 11 and 13% of non-work trips are made by foot. Interestingly, the Christchurch City Council Annual Residents survey found that when residents travel into the Central City for non-work reasons, 22% use the bus and 11% walk or jog (Christchurch City Council 2004)

### **Christchurch and Cycles**

Christchurch has the third highest rate of commuter cycling in New Zealand. Palmerston North and Nelson have the highest levels nationally with 7.5% and 7.2% respectively.

Christchurch is supported as a cycle-friendly city. An annual survey showed 96% of Christchurch residents are supportive of Council efforts to make Christchurch cycle friendly (Christchurch City Council 2005). Christchurch City Council and Environment Canterbury have both developed cycling strategies to increase the amount of cycling,

increase the enjoyment of cycling and reduce the number of cycle crashes in Christchurch city. These strategies include urban design measures to promote cycling, as well as the development of networks of cycle routes (Christchurch City Council 2004; Environment Canterbury 2005; Environment Canterbury 2005). A residents' survey in February 2005 showed that 31% of Christchurch residents cycle for recreation with 35% cycling once a month or more. It also found that 80% found cycling enjoyable. The same survey among cyclists showed that 82% cycle for recreation, 92% cycles once a month or more and 73% said cycling in Christchurch was safe.

### ***Road traffic injuries and other safety issues***

A significant proportion of hospitalisations and deaths in all countries are due to road traffic injuries (Public Health Advisory Committee 2003). In New Zealand road traffic injuries ranked as the second highest cause of 'years of life lost' for men in 1996 (Ministry of Health 1999).

Road traffic injuries are differentially distributed to adversely affect children, Maori and Pacific, those with greater socio-economic deprivation, and pedestrians, cyclists and motorcyclists (Public Health Advisory Committee 2003; Public Health Association of New Zealand 2004). Drivers of Māori or Pacific ethnicity face a higher risk of injury per distance driven than Pakeha/ European drivers. The risk of being hospitalised as a result of a road crash is around three times higher for Māori and Pacific drivers (Kjellstrom and Hill 2002).

There is a large literature to support interventions in transport strategies and urban planning to reduce rates of road traffic injury. (Roberts, Norton et al. 1995; Christchurch City Council 2004; Environment Canterbury 2005; Environment Canterbury 2005). Urban and transport node design can significantly increase road safety. As this is an area where significant inequalities exist, this is a clear opportunity to reduce inequalities and maximise safety.

The CTIP can minimise risk of bus/pedestrian and bus/cyclist injury through design of the interchange. While road safety and other safety are of prime concern in this project, it is likely that safety issues will be included by planners as a priority. Specific ideas that have been included in design guidelines of Interchange Hubs in Europe (Transport for London 2001) include segregating pedestrians from road vehicles as far as possible, use of guard rails and glazed panels to ensure pedestrians do not stray into the path of vehicles and clearly marked pedestrian crossings (signed and controlled if there are significant numbers of pedestrians).

Security of an interchange is enhanced with use of transparent materials, well-lit public areas, provision of waiting areas with real-time information displays about their transport service, use of help points, mirrors and CCTV, waiting and staff facilities which can be seen by staff and waiting passengers, and designing out blind corners and recesses (Transport for London 2001).

## ***Air and noise pollution***

Transport is a major contributor to poor air quality. Air pollution generated by oil-powered vehicles can exceed safe levels, cause hospitalisations and premature death (Hales, Salmond et al. 2000). In the US, diesel emissions alone are estimated to shorten the lives of 21 000 people, including 3000 deaths due to lung cancer (Schneider and Hill 2005) while in New Zealand vehicle emissions are estimated to be responsible for around 400 premature deaths per year in New Zealand (Fisher, Rolfe et al. 2002). Interestingly, people riding a bike are exposed to two to three times less air pollution compared with people driving cars on the same road (Rissel 2003).

Negative effects of traffic noise include interference with communication; sleep disturbance and vibration from passing traffic (Kjellstrom and Hill 2002). There is emerging evidence of an association between hypertension and ischaemic heart disease and high levels of noise.

In a transport interchange high levels of noise will reduce social connectedness and well-being associated with use of the interchange. Design features that reduce air and noise pollution include ventilation, high ceilings, extractor fans, wall and ceiling acoustic insulation and segregating spaces for buses and people as far as possible.

## ***Accessibility***

The interchange must be fully accessible to all: people with disabilities, older people, carers of young children as well as people carrying heavy bags. Stairs, escalators and lifts must all be wheelchair accessible and buses must be able to kneel on request at all platforms. Tactile paving and large clear signage and information screens will help those who are visually impaired as will clear sightlines along pedestrian desire lines. Careful location and signage of lifts ensures passengers are aware they have a choice between staircases and escalators and lifts.

The Transport *for* London document Intermodal transport interchange for London: Best practice guidelines (Transport for London 2001) is clear about accessibility: A well designed interchange should provide clear routes between services and modes, which minimise the time and effort involved in making a transfer. As far as possible pedestrian routes should be kept clear of structural elements such as pillars and alcoves and 'hidden' spaces should also be avoided. Ticket offices and ticket halls should be designed and oriented to provide convenient walk links to key passenger objectives within and beyond the zone, particularly other public transport facilities. Other design features may include ramps for step-free access, as well as stairs, lifts located to maximise security (well-lit, use of transparent materials and located in busy places). Access to the interchange should take into account use of taxis/ private cars as a feeder-mode into the interchange for passengers with heavy baggage or mobility impairment.

## **Active transport**

### **Why is physical activity important?**

In New Zealand physical inactivity is second only to smoking as a modifiable risk factor for poor health. It is associated with 8 percent of all deaths and accounts for over 2000 deaths per year. Insufficient physical activity is also in the top ten causes of death in New Zealand by risk factor. One-third of New Zealand adults are not physically active at levels sufficient to benefit their health.  
(Ministry of Health 2003)

Compared with people who are sedentary and do no exercise, people who are physically active have a reduced risk of death from any cause. More specifically, there is a substantial reduction in the risk of developing major chronic diseases such as coronary heart disease, stroke, type 2 diabetes and cancer, especially colon and breast cancer, for those who are physically active. Regular physical activity may also help with weight control and obesity prevention as well as muscle and bone strength.  
(Health Scotland 2007)

Cycling, walking and running are forms of active transport, which contribute to increased physical fitness, lower levels of obesity, increased well being and reduced congestion of roads. Current recommendations are for adults is to accumulate thirty minutes of moderate-intensity activity, such as brisk walking, on most days of the week (at least five days per week). This moderate-intensity activity can be accumulated in several bouts of at least ten minutes and is sufficient to bring health benefits (Health Scotland 2007).

A cohort study following 30 000 people in Denmark over 14 years, found that cycling to work decreased the risk of death by 40% (Anderson, Schnohr et al. 2000). Safety is a commonly perceived barrier to cycling but a British Medical Association report reviewing risk of injury and health benefits related to cycling concluded that the benefits clearly outweighed the risks (British Medical Association 1994).

There have been significant changes in the way New Zealanders move around in the past two decades, with an increasing reliance on the private motor vehicle and decreasing use of cycling and public transport – this trend may however now be turning back to more active forms of transport (Parker 2005). Apart from encouraging a sedentary lifestyle, reliance on motor vehicle transport has other adverse health effects such as traffic accidents, air and noise pollution and greenhouse gas emissions (Mason 2000).

### **Interventions to encourage physical activity**

There are a number of interventions that can be used in a transport interchange to encourage walking and cycling and to discourage use of cars. These include financial measures e.g. charging for car parking or car use, engineering measures (traffic calming, road space reallocation, cycle paths), urban planning measures, travel behaviour change programmes, availability of and integrated urban transport strategies (Gorman, Douglas et al. 2003; Oglivie 2004). Other publications describe environmental factors and user

demographics most likely to facilitate active transport in urban design and transport strategies (Saelens, Sallis et al. 2003).

The transport strategy “Getting there – on foot, by cycle” provides a strategic framework to advance walking and cycling as part of the New Zealand Transport Strategy (Ministry of Transport 2005). There is an increasing need to link travel behaviour research with research behind promotion of physical activity (Hoehner, Brenna et al. 2002). Policy-makers widely support opportunities to integrate public health and urban planning approaches to promote active community environments (British Medical Association 1994; Hoehner, Brenna et al. 2002; Rissel 2003).

Walking is highly efficient in its use of urban space and energy. It rarely causes injury, gives streets vitality and personal security and provides habitual physical activity with considerable benefits for health (Mason 2000).

Transport node design can substantially increase the opportunity for physical activity and active transport. Design features that should be included to ensure good linkage with cyclists and pedestrians would take account of existing and future potential demand. They should include cycle facilities that have the following attributes:

- Secure and where necessary monitored with CCTV.
- Protected from the weather and well-lit.
- Located for convenient access from cycle-ways/roads and don't impede pedestrians.
- Consider enhanced facilities such as cycle lockers, cycle hire/repair and showers.
- Cycle stands should be suitable for all types of cycles and easy to use and access in a secure and public place.
- Secure luggage storage.
- Foot access to the interchange should be obvious and easy from different directions, and with minimal interaction with bus and traffic flows.
- Additional parking space should not be provided in locations that will encourage passengers to use private cars rather than more sustainable forms of transport.

## **Workshop Results**

### **Walking**

Workshop participants strongly supported Interchange design that caters for a wide and diverse mix of pedestrians. All participants felt pedestrians should be able to navigate their way to the Interchange as well as around the Interchange with ease. It was felt the Interchange should be a welcoming, friendly environment for pedestrians regardless of mobility skills and access from other streets should be safe from all approaches at any time of day or night. Suggestions to facilitate navigability and easy movement around the interchange were diverse and included proposals for an “aural” guide, as well as the idea that the roles of cleaner and guide could be combined and they could wear an eye-catching uniform for identification.

Central to supporting active transport and walking, it is important that the Interchange design and bus services meet the needs of people who are mobility impaired, including the use of prams, wheelchairs and walkers. Further recommendations on access have not

been made in this Health Impact Assessment as it is believed that access is such an important issue for a well designed Interchange that it will be included and widely consulted upon.

### **Cycling**

Workshop participants felt the new transport interchange offered an ideal opportunity to promote active transport. Design that supported cycling and promoted use of cycles was considered essential. In particular, participants felt the Interchange should be welcoming to cyclists with ease of access, attractive surroundings and with reduced traffic flows to facilitate access to the interchange as well as supporting a sense of safety for cyclists. In addition to recommendations on interchange design features, there was strong support that the new interchange is an opportunity to expand “bikes on buses” to all bus services and support for bus and platform design that permits cycles to be loaded and offloaded from buses within the interchange.

### **Recommendations**

#### **Walking**

1. Wayfinding and signage to and from the interchange as well as within it should be clear, with the following design features:
  - Aural and tactile clues should be available for the visually impaired;
  - Large and well-placed using internationally recognised pictorial signs;
  - Information in different languages should be available;
  - Pedestrians should be separated from traffic;
  - Signage to and from the Interchange from major Central City destinations provided with clearly identified walkways and walking map.
2. The environment should be welcoming, well-designed and aesthetically pleasing:
  - Attractive, inspiring and culturally appropriate Public Art should be displayed;
  - The interior should have good amenities, be well-lit, furnished in warm colours and have water features, greenery and transparent walls;
  - People should feel safe within the building with provision of CCTV cameras;
  - There should be multiple, well signposted pedestrian entry and exit points.
3. The environment should be designed for good access for mobility impaired:
  - Walkways should be wide to accommodate wheelchairs, walkers, Zimmer frames, prams and pushchairs with provision for mounting and alighting from buses;
  - Bus platforms should be also large to accommodate people who are mobility impaired as well as those with significant luggage;
  - Inexpensive, secure luggage storage areas should be provided.
4. Access to and from the Interchange should be safe and simple, facilitated by pedestrian crossings, overbridges and/or underbridges on surrounding streets.

#### **Cycling**

1. The interchange should be an inviting and hospitable facility and access into it should be easy. Design features to facilitate this include:



- Multiple cyclist entrances and bike stands;
  - Ramps for easy access;
  - Provision of showers and a cycle centre;
  - Clear signage to indicate allowed routes for cyclists, and to minimise cyclist-pedestrian interaction
2. Secure, easy use storage for cycles should be provided. Specific design features supporting this include:
    - Secure and convenient lock-up and/or stands;
    - Individual stands with adequate space to facilitate padlocking;
    - Cycle stands and lock-up should provide space for cycles with trailers with CCTV monitoring to increase security.
  3. Traffic flow design that facilitates cycle access and safety around the interchange with the following measures:
    - Provision of well-marked cycle lanes on all sides of the Interchange, ensuring there is at least one access route that excludes cars as footpaths do, for use by heavily loaded, young and less confident cyclists;
    - Reduce traffic flows and provide traffic calming in streets around the Interchange;
    - Minimise vehicle/pedestrian interaction with cyclists.

### ***Community engagement***

Proposals for improving interchange should be developed in consultation with any organisation involved in planning and providing public transport services and facilities at the interchange, customers and operating staff.

Intermodal transport change for London: Best practice guidelines. London, (Transport for London 2001)

*“Don’t do anything for the community without the community!”*

To realise all the health benefits that a well-designed hub can provide, the community needs to be engaged and feel a sense of ownership of the facility so they are happy to use it. This means appropriate public engagement is required using a variety of measures and consulting with a range of different groups. Children, young people, young families, commuters, older people, people with disabilities, cyclists, pedestrians and tourists are all key user groups with different needs who will have new perspectives to contribute to the Interchange design. Children and young people are particularly important to engage as the way in which they respond to the Interchange will help determine how they perceive and value public transport in the future. If they are engaged and encouraged through the design of the Interchange to view public transport favorably, this will help to ensure its acceptability and sustainability in the long term.

There are good examples of how community participation and consultation in urban design and related infrastructure projects can lead to improved access to services and healthy lifestyles (Brugge, Leong et al. 1999; Semenza 2003; Parry, Laburn-Peart et al. 2004).

Kaplan and Kaplan (Kaplan and Kaplan 2003) suggest people are more reasonable, cooperative, helpful and satisfied when the environment supports their basic informational needs and these are also important in enhancing health. They suggest the literature on the harmful effects of helplessness indicate it is important for people to be heard and have the opportunity to participate and be a part of a process.

Participation means people are part of the action and hence feel a sense of ownership of the process or processes they are involved with. In addition, they may be able to change a potentially poor outcome for the community into a better one, as was the case with Boston's Chinatown: improving traffic safety in new developments through the community undertaking its own research (Kaplan and Kaplan 2003). Similarly public health advocacy enabled a community concerned about increased heavy traffic on roads through a small regional city in western Australia to form an alliance which developed a range of strategies and provide a policy alternative to government and industry (Brugge, Leong et al. 1999)

### **Fit for purpose**

There are a number of different methods, tools and techniques for engaging with customers and communities. The table below will assist in determining what method or technique to use. The first column lists some of the reasons for seeking to engage with customers or communities. Columns two and three outline some of the techniques available for engaging with individuals and communities. The fourth column suggests techniques to help involve partners – such as health trusts or indeed other council departments – in becoming more customer and citizen focused. Table Two (Appendix Two) indicates some of the costs and benefits of using the methods outlined in Table One.

### **Engagement with Māori**

The Treaty of Waitangi, as founding document of New Zealand, was reviewed by the Royal Commission on Social Policy in 1987. The principles of the Treaty were crystallised from the original Treaty document by the commission as a guide on how to work and live together as a nation of two peoples – Māori and Pakeha.

The three principles identified by the Royal Commission were participation, partnership and protection. These principles provide important guidance when considering community engagement for the Christchurch Transport Interchange Project. In regard to how the project should work with tangata whenua - the original people of the land of Otautahi - we need to ensure engagement and consultation is genuine and facilitates full opportunity for participation by all Māori in Christchurch. It is likely that multiple opportunities to participate and a range of types of consultation (including written, oral, hui, and internet) will be required to obtain maximum response from the Māori

community. The development of the interchange design requires a partnership model with Māori with a formal process. The responsibility of the Crown/ State is one of protecting the needs for self-determination (which include access to services) and health/ well-being of Māori in Otautahi.

### **Workshop Results**

The project manager indicated he was meeting with community advisers in Christchurch City Council responsible for community engagement about the process of engaging with communities prior to developing a consultation timetable.

Workshop participants brainstormed particular groups that should be engaged and participating in consultation about design of the interchange. While a long and diverse list of groups who need to be consulted was generated, it was particularly felt that those whose voices are not typically heard should be included. Two groups in particular who have not been consulted with adequately in the past are Māori and children.

He Oranga Pounamu has established a Community Consultation Forum to facilitate engagement with Māori on an ongoing basis. Utilising this forum as a means of engaging with Māori regarding the interchange has the advantage of working with a group who are accustomed to such discussions on a regular basis.

In addition, it is important to also consult with the local Ngai Tahu Papatipu Runaka representatives and this can easily be arranged when appropriate.

### **Recommendations**

1. That engagement with Māori should be undertaken using multiple and diverse opportunities for feedback, including the He Oranga Pounamu Community Consultation Forum.
2. That Papatipu Runaka representatives are invited to a Ngai Tahu consultation forum.
3. That groups whose voices are heard less often should be consulted with in a genuine and creative way and particularly should include children and young people.

Table One

This table can be accessed at <http://www.improvementnetwork.gov.uk/imp/aio/1000352>

Purpose	Individuals	Methods of engagement Groups and communities	Partners and other stakeholders
<p><b>Information</b> <i>One way – continuous</i> How to access to services Changes to services Opportunities/methods for being involved</p>	<ul style="list-style-type: none"> <li>• Face to face via frontline staff</li> <li>• Telephone</li> <li>• Website</li> <li>• Leaflets</li> <li>• SMS/text messaging interest groups</li> <li>• Electronic communications e.g. email or websites</li> <li>• Mass Media e.g T.V, local newspapers or radio</li> <li>• Direct correspondence</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Website</li> <li>• Leaflets</li> <li>• Performance plan summaries</li> <li>• Council tax leaflets</li> <li>• Exhibitions, roadshows and open days</li> <li>• Electronic communications</li> <li>• Mass Media e.g T.V, local newspapers</li> <li>• Interest or specialist groups</li> </ul>	<ul style="list-style-type: none"> <li>• Newsletters</li> <li>• Website</li> <li>• Leaflets</li> <li>• Corporate and service plans</li> </ul>
<p><b>Communication</b> <i>Two way – continuous</i> Dialogue with users and communities about their views and needs</p>	<ul style="list-style-type: none"> <li>• Face to face e.g. meetings</li> <li>• Interviews – telephone, in depth Interviews</li> <li>• Self-completed responses via advocates - interest groups</li> <li>• Comments and complaint schemes</li> <li>• Mediation</li> <li>• Diaries</li> <li>• Email</li> <li>• Written correspondence</li> <li>• Video box, video links</li> </ul>	<ul style="list-style-type: none"> <li>• Questionnaires</li> <li>• Citizens’ panels</li> <li>• Standing research panels</li> <li>• Opinion Polls</li> <li>• Referendums</li> <li>• Comments and complaint schemes</li> <li>• Invitation for written inputs</li> <li>• Public meetings/ Service user groups</li> <li>• Petitions/ Public question time</li> <li>• Delegations to council committees</li> <li>• Interest or specialist groups</li> <li>• Citizens’ workshops</li> <li>• Pictures, metaphors and drama</li> <li>• Participant led workshops</li> <li>• Exhibitions, roadshows and open days</li> </ul>	<ul style="list-style-type: none"> <li>• Opinion polls</li> <li>• Invitation for written inputs</li> <li>• Public meetings</li> <li>• Interest or specialist groups</li> <li>• Participant led workshops</li> <li>• Open space event</li> <li>• Informal contacts with officers and members</li> <li>• Local strategic partnership (LSP) meetings</li> <li>• Other stakeholder meetings and events</li> <li>• Focus groups</li> <li>• Visioning exercises</li> <li>• Surveys</li> <li>• Consulting with employees</li> </ul>

Purpose	Individuals	Methods of engagement Groups and communities	Partners and other stakeholders
<p><b>Co-production</b> <i>Two way – continuous</i> Users and communities involved in service provision e.g. through direct payments, governance, volunteering, skill-swap, time-bank</p>	<ul style="list-style-type: none"> <li>• Meetings e.g. planning and management</li> <li>• Support personal advisers e.g. from service provider</li> <li>• Active participation of user in service provision</li> <li>• Devolving power to users</li> </ul>	<ul style="list-style-type: none"> <li>• Project management group membership</li> <li>• Service user groups</li> <li>• Direct user involvement</li> <li>• Recruitment through community groups</li> <li>• Services provided by the voluntary and community sector</li> <li>• Devolving power to groups/communities</li> </ul>	<ul style="list-style-type: none"> <li>• Joint co-production plan</li> <li>• Shared resources for coordination and support</li> <li>• Practitioner networks</li> <li>• Joint training - staff and users</li> <li>• Service delivery partnerships</li> </ul>

The box below describes an example of a successful consultation process – in the City of Phoenix, Arizona, USA (Phoenix Government 2004).

### **Light Rail Transit Station Area Planning**

The city of Phoenix initiated a Station Area Planning Programme in support of transit-oriented development (TOD) around light rail stations. Local residents, business owners, and community groups were encouraged to become involved in creating a plan that identified opportunities for new development and improved the connectivity of their neighbourhood to the light rail station.

The Phoenix Planning Commission selected six stations to begin this work and held successful community consultations for them all. The consultations which comprised a mix of community workshops and a panel of TOD experts. A summary of the consultation for the area around the 38th & Washington METRO Station is provided below.

**Introductory Meeting:** Approximately 30 people attended the introductory meeting. There was a presentation about the area for information preparatory to the first workshop.

**1<sup>st</sup> Community Workshop:** About 20 participants attended the first community workshop. They broke into three working groups to brainstorm with City of Phoenix planners about the implications of light rail on land use in their neighbourhood. The creative ideas brought forth at the workshop will help shape development, access ways, and public spaces. Participants voiced diverse opinions but were overall enthusiastic of the potential in their neighbourhood for change and were willing to seize the opportunity presented by the light rail.

**Panel of TOD Experts:** Approximately 30 people attended the TOD panel of experts meeting. The three panellists presented and answered questions from the audience on future development around the light rail stations. They addressed the importance of identifying development opportunities early, discussed developers' responsibility to answer to a range of interests, transport as a household expense, increasing development costs for mixed use projects, TOD as a lifestyle, and the need for high density to keep units "affordable" to offset land costs. The audience showed a high level of interest and understanding of the importance of their involvement in a successful Stationary Area Plan.

**2<sup>nd</sup> Community Workshop:** The second community workshop was critical in the development of the station area plan. Planning staff reviewed the discussions of the previous visioning workshop and handed out copies of the visioning results.

Workshop participants identified opportunities and constraints affecting development within the station area. In addition, participants reviewed a preliminary land use plan and recommended land use alternatives and heights for new development within the station planning area.

**3<sup>rd</sup> Community Workshop:** Approximately 10 people attended the community meeting for review of the opportunities and constraints and land use alternatives. There was a presentation on new urban development and how densities can be increased within transit-oriented development around the METRO stations. After discussion, planning staff presented a number of land use and height alternatives created in the previous community workshop. The participants asked many questions and provided comments on the land use alternatives. After discussion, the participants were asked to vote on the individual land use and height designations presented. With minor changes a preferred land use scenario was agreed upon by a majority of the participants.

## **Social connectedness**

In essence, roads in rural and provincial communities tend to connect people into communities, while roads in urban areas can divide communities due to traffic volumes, loss of land and dispersion of activity

Transport and Environment Committee 1998 (Transport and Environment Committee 1998)

“The influence of transport on social cohesion is complex. Transport provides an important means of contact between family members, friends and members of voluntary organisations and communities. At the same time, roadways and traffic act as a physical and psychological barrier to social contact. Whether the positive or negative social effects of transport predominate depends on the location and volumes of transport networks”(Kjellstrom and Hill 2002).

In the context of urban planning, it is useful to note that in rural areas and satellite suburbs, reliance on a private motor vehicle is greater, and motorised transport is essential to access facilities and to maintain social contact. Social isolation may be increased by lack of car access, especially in areas with poor public transport (Gorman, Douglas et al. 2000; Gorman, Douglas et al. 2003; Public Health Advisory Committee 2003).

Others have described social severance as a term used to describe the negative effect that roads and traffic have on social interaction within a community. A busy roadway and heavy traffic flows can act as a barrier to community contact and hence contribute to poorer mental and physical health. International literature indicates that social severance has its greatest impact on those with limited mobility, such as children, the elderly and people with disabilities. There is a need for increased information around transport-related social severance in New Zealand (Kjellstrom and Hill 2002).

Urban design can substantially contribute to development of positive social networks, through limiting social severance and providing options for active and public transport. This is an area where there are clear inequalities, and significant possibility to reduce these.

Transport *for* London (Transport for London 2001) have determined there are three main activities that passengers may wish to carry out in a transport hub(Transport for London 2001). These are:

- To transfer between one service or mode and another;
- To wait for their next service; and
- To use the time they spend waiting or transferring to carry out other daily activities such as buying a coffee or newspaper, or using a cash machine.

The latter type of activity in particular is conducive to social connectedness as provision of such services encourages the use of the interchange as a meeting place.

Thus the interchange is not just a transport space, it is also a public space. The provision of non-transport facilities such as shops, places to buy food and drink, obtain cash and hire lockers for luggage is generally welcomed by passengers. It allows them to make productive use of the time they spend waiting, make the wait more enjoyable and converse with others. Bringing activity into an interchange may make passengers feel more secure, particularly during less busy periods of the day or night.

Encounters with nature in public spaces have been found to provide health benefits and tend to make communities safer (Kaplan and Kaplan 2003). The introduction of public art and natural features such as planting can make the hub more attractive and make waiting or transferring more enjoyable as can seating which is attractive and arranged to encourage conversation. The above features can be used to mark off different spaces or 'rooms' to suit different ages and stages such as children (a play area for example), young people and older people.

The UK Department for Transport (DfT) has undertaken work examining the relationship between social exclusion and transport and identifying the contribution that public and community transport can make to reducing levels of exclusion (Department for Transport 2000). This report found there were clear connections between transport and social exclusion and this was particularly marked among unemployed people, families with young children, young people, older people, and all those on low incomes. Although in rural areas there are not large numbers of socially excluded people, transport is a very important consideration to many rural and small towns dwellers, particularly those who do not have access to a car.

Further work (Department for Transport and Office of the Deputy Prime Minister 2004) found that it was not clear how best to tackle social exclusion, but social interaction and access to opportunities and facilities contribute to social inclusion as much as income level. They found some authors advocated for transport investment as critical in improving social connectedness but the type of intervention required depends on the spread of deprivation. Others suggest accessibility to be more critical than mobility and propose a relocation of services.

### **Workshop Results**

Workshop participants considered there was a great opportunity to design the interchange in a way that enhanced social connectedness. As a major public place used by thousands of people daily, it has the opportunity to become a destination in itself as well as a place to pass through or wait in. A variety of in-built facilities that cater for a range of age groups and their different needs provides opportunities for meetings, a social hum, a place for rest and friendship and a pleasant waiting environment. There was strong support for designing the interchange to cater for a diverse range of users.

Specific design features can facilitate social connectedness for user groups of a particular demographic. These could be as varied as a breast feeding room and change tables for the needs of very young children, a seating area particularly designed for elderly people with higher seats and walking stick hangers and rotating displays on memorabilia from olden



times, and a youth area on the periphery of the interchange with stowage cage for school bags and a skateboard area

### **Recommendations**

The interchange should facilitate social connectedness. Specific design features to achieve this could include:

- Plenty of comfortable seating in spacious areas, with the seating grouped attractively to facilitate social interaction;
- Areas for eating and drinking including different kinds of premises (eg ‘tearooms’ as well as a café);
- Children’s play area with tables surrounding it;
- Natural lighting and water features such as aquariums or a rooftop garden or atrium;
- Opportunities for long distance social networking eg Internet use / wireless hotspot;
- Spaces for public events such as live performances, art displays, information boards, gigs etc.

### **Access to services**

A well-located and designed transport hub, as the interchange hopes to be, could offer an improved ability to access all services e.g. retail, health, leisure, education, and employment, as a result of improved public transport services. (London Health Commission 2000; Gorman, Douglas et al. 2003). Conversely, lack of easy access by residents disadvantages them by making it harder to get the full benefit from what society offers. For example, job opportunities can be limited by the limitation of public transport areas within which one can seek a job. Good transport interchange design along with co-location of key services could have a number of health benefits through the reduction of current inequalities if carefully targeted. The health benefits include:

- Potentially improved diet with easier access to stores selling affordable healthy food for those currently living in ‘food deserts’ with poor supermarket access.
- Ability to access health services both (treatment and preventive care).
- Ability to access facilities for physical activity and other leisure activities.
- Ability for adults as well as children to access educational facilities with improved public transport.
- Ability to access employment - with appropriate transport design it can be accessible and affordable (London Health Commission 2000).

Public transport allows those on low incomes to access places of employment, but this is dependent on the linking transport strategy proposals with economic and spatial development. Public transport is important to children and young people; for example it may be the only means young people may have of getting to college (Department for Transport 2000; Department for Transport 2006). Older people may no longer be able to drive and are often totally reliant on public transport (Department for Transport 2001).

In addition to enhancing access to services around the city, as discussed in the section on social connectedness the transport hub should provide services within the hub as well as without.

## **Workshop Results**

Participants of the workshop highlighted that the interchange provides a unique opportunity for the bus services and transport services of Christchurch to maximise opportunities for education, social networking, a range of retail outlets in walking distance and facilities such as libraries and health providers. Access to services is facilitated by the co-location of services with the interchange, but also by the timetabling and frequency of bus services. The building of the interchange provides an opportunity to review timetabling of public transport in Christchurch and is an area with clear implication for health - and for health impact assessment. As part of the interchange HIA we would be keen to participate in discussions at a later date, on how bus services, linking to the interchange can reduce transport related health inequalities.

## **Recommendations**

1. That within the interchange the following services are available:
  - Affordable and healthy food and drink;
  - Facilities for mobility impaired people, children, parents and babies including a play area;
  - Non-commercial facilities for meetings and networking.
2. That services that support community development, education and health are located within one block of the interchange: these could include services such as Actionworks, a public library, an affordable supermarket, a gym, a place for teenagers/skate park and offices of key support government agencies.

## **Summary**

Urban design can facilitate active transport. A Health Impact Assessment of the Mayor's draft transport strategy by the London Health commission made the following recommendations to increase the potential for health improvement:

1. Promote other modes of transport.
2. Promote the use of public transport
3. Reduce the use of private cars.
4. Link transport, economic development and spatial development.

In the interchange, design that promotes health and health determinants as discussed above should receive high priority.

This review shows the significant effects transport interchange design can have on health. Active community engagement process can enhance and support recommendations of this report to ensure the Interchange is a healthy, lively hub for transport in Christchurch City.

## References

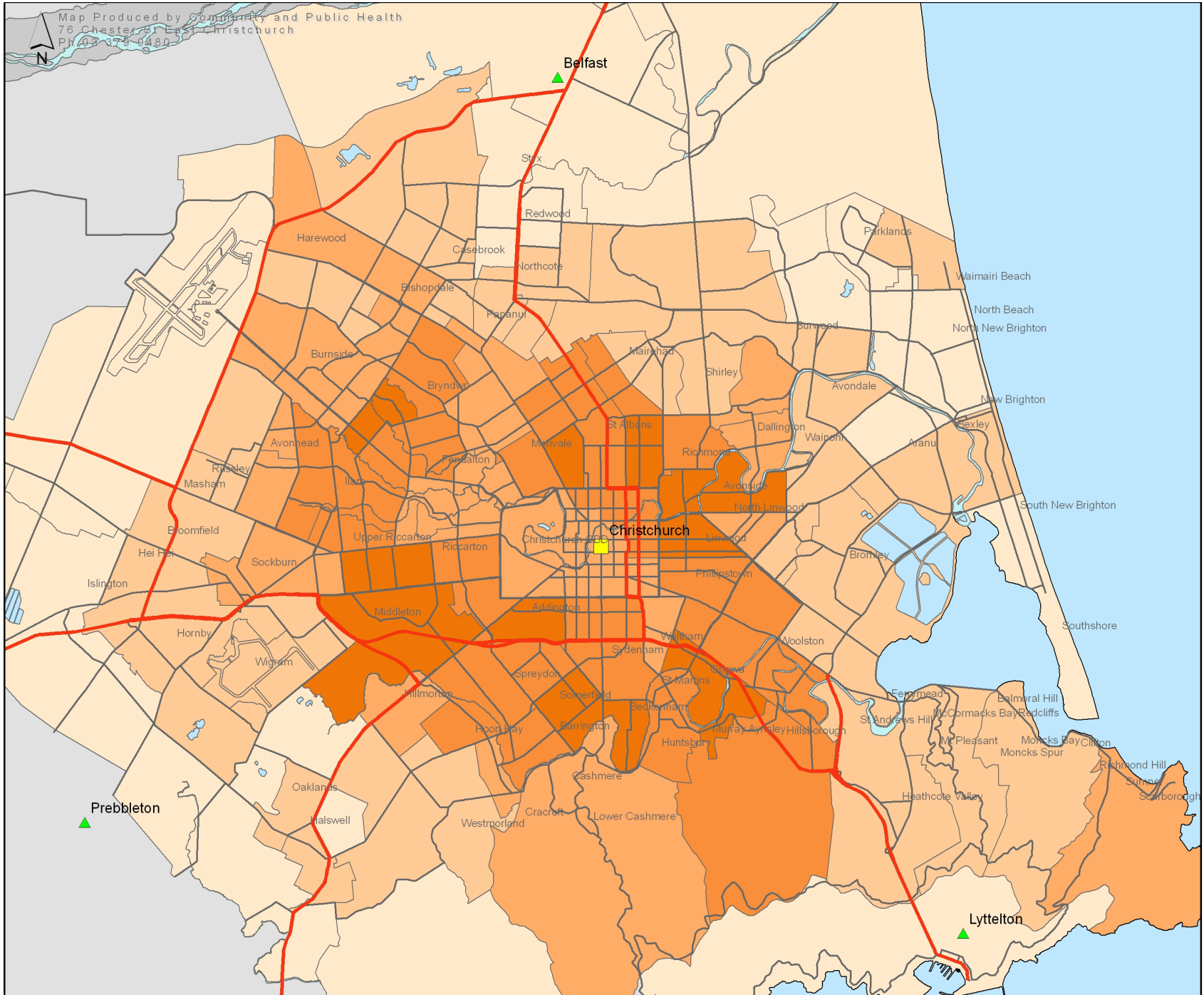
- Acheson (1998). Inequalities in health. Edinburgh, The Stationary Office.
- Anderson, L., P. Schnohr, et al. (2000). "All-cause mortality associated with physical activity during leisure time, work, sports and cycling to work." Arch Intern Med **160**: 1621-8.
- British Medical Association (1994). Cycling towards health and safety. Oxford (UK), Oxford University Press.
- British Medical Association (1997). Road transport and health. London, British Medical Association.
- Brugge, D., A. Leong, et al. (1999). "Can a community inject public health values into transportation questions." Public Health reports **114**(1): 40-47.
- Christchurch City Council (2004). 2004 Christchurch Residents Survey. Christchurch, Christchurch City Council.
- Christchurch City Council (2004). Cycling Strategy Christchurch, Christchurch City Council.
- Christchurch City Council (2005). Cycling Monitor 2005. Christchurch, Christchurch City Council.
- Department for Transport (2000). Social exclusion and the provision of public transport. London, Department for Transport.
- Department for Transport (2001). Older people and their transport: their needs and requirements. London, Department for Transport, UK.
- Department for Transport (2006). Young people and their transport: their needs and requirements. London, Department for Transport.
- Department for Transport and Office of the Deputy Prime Minister (2004). Transport and city competitiveness. London, Department of Transport.
- Environment Canterbury (2005). Canterbury Regional Land Transport Strategy. Christchurch, Environment Canterbury.
- Environment Canterbury (2005). Cycling in Canterbury: strategy for the development of a regional network of cycle routes. Christchurch, Environment Canterbury.
- Fisher, G., K. Rolfe, et al. (2002). Health effects due to motor vehicle air pollution in New Zealand. Wellington, Ministry of Transport.
- Fleeman, N. and A. Scott-Samuel (2000). "A prospective health impact assessment of the Merseyside Integrated Transport Strategy (MerITS)." J Public Health Med **22**(3): 268-74.
- Gorman, D., M. Douglas, et al. (2000). Health Impact Assessment: of the City of Edinburgh Council's Urban Transport Strategy. Edinburgh, Scottish Needs Assessment Programme, City of Edinburgh's Council.
- Gorman, D., M. Douglas, et al. (2003). "Transport policy and health inequalities: a health impact assessment of Edinburgh's transport policy." Public Health **117**: 15-24.
- Hales, W., C. Salmond, et al. (2000). "Daily mortality in relation to weather and air pollution in Christchurch, New Zealand." Aust NZ J Public Health **24**: 89-91.
- Health Scotland (2007). Health impact assessment of transport initiatives. Edinburgh.
- Hoehner, C., L. Brenna, et al. (2002). "Opportunities for integrating public health and urban planning approaches to promote active community environments." American Journal of Health Promotion **18**(1): 114-20.
- Kaplan, S. and R. Kaplan (2003). "Health, supportive environments and the Reasonable Person Model." American Journal of Public Health **93**(9): 1484.
- Kjellstrom, T. and S. Hill (2002). New Zealand evidence for health impacts of transport - a background paper prepared for the Public Health Advisory Committee. Wellington, National Health Committee.
- London Health Commission (2000). A report of a health impact assessment of the Mayor's draft transport strategy by the London Health Commission. London, London Health Commission.
- Mason, C. (2000). "Transport and health: en route to a healthier Australia." MJA **172**: 230-32.
- Mathias, K. (2008). Scoping and Screening the Christchurch Bus Exchange Health Impact Assessment workshop - Internal Report. Christchurch, Community and Public Health, Canterbury District Health Board.
- Ministry of Health (1999). Our Health Our Future : Hauora Pakari Koiora Roa - the Health of New Zealanders 1999. Wellington, Ministry of Health.
- Ministry of Health (2003). Physical Activity DHB Toolkit. Wellington, Ministry of Health.

- Ministry of Transport (2005). Getting there - on foot, by cycle. Wellington, Ministry of Transport.
- Oglivie, D. (2004). Promoting walking and cycling as an alternative to using cars: what works? A systematic review. Glasgow, Social and Public Health Sciences Unit, University of Glasgow.
- Parker, A. (2005). Unsustainable transport trends in Census Data for the journey to work : the oil conservation role of the bicycle in Australian and New Zealand cities. Melbourne, Bicycle Federation of Australia.
- Parry, J., K. Laburn-Peart, et al. (2004). "Mechanisms by which area-based regeneration programmes might impact on community health: a case study of the new deal for communities initiative." Public Health **118**(497-505).
- Phoenix Government (2004). Light rail transit station planning - community participation report. Phoenix, Arizona, USA, Phoenix Government,.
- Public Health Advisory Committee (2003). Intersections between transport and health: the impacts of transport on health. Wellington, National Health Committee.
- Public Health Association of New Zealand (2004). Transport and Health - Public Health Association of New Zealand position statement. Wellington, Public Health Association of New Zealand: 3.
- Racioppi, F. and C. Dora (1999). Transport, environment and health: the results of a Healthy Cities survey in 54 European cities. Rome, WHO European Centre for Environment and Health.
- Rissel, c. (2003). "Ride your bike: healthy policy for Australians." Health Promotion Journal of Australia **14**(3): 151-2.
- Roberts, I., R. Norton, et al. (1995). "Effect of environmental factors on risk of injury of child pedestrians by motor vehicles: a case-control study." BMJ **310**: 91-94.
- Saelens, B., J. Sallis, et al. (2003). "Environmental correlates of walking and cycling: findings from the transportation, urban design and planning literatures." Ann Behav Med **25**(2): 80-91.
- Schneider, C. and L. Hill (2005). Diesel and health in America: the lingering threat. Boston, Clean Air Taskforce.
- Semenza, J. (2003). "The intersection of urban planning, art and public health : The Sunnyside Piazza." American Journal of Public Health **93**(9): 1439-1441.
- The Royal commission on Social Policy (1987). The Treaty of Waitangi and Social Policy. Wellington, New Zealand: The Commission.
- Transport and Environment Committee (1998). Inquiry into the environmental effects of road transport: interim report. Wellington, New Zealand Parliament.
- Transport for London (2001). Intermodal interchange transport for London - best practice guidelines. London, Transport for London.

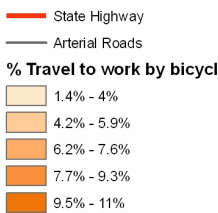
***Appendix One - Maps of Travel to Work mode preferences across Census Area units in Christchurch***



Map Produced by Community and Public Health  
76 Chester St East Christchurch  
PH 03 378 6480



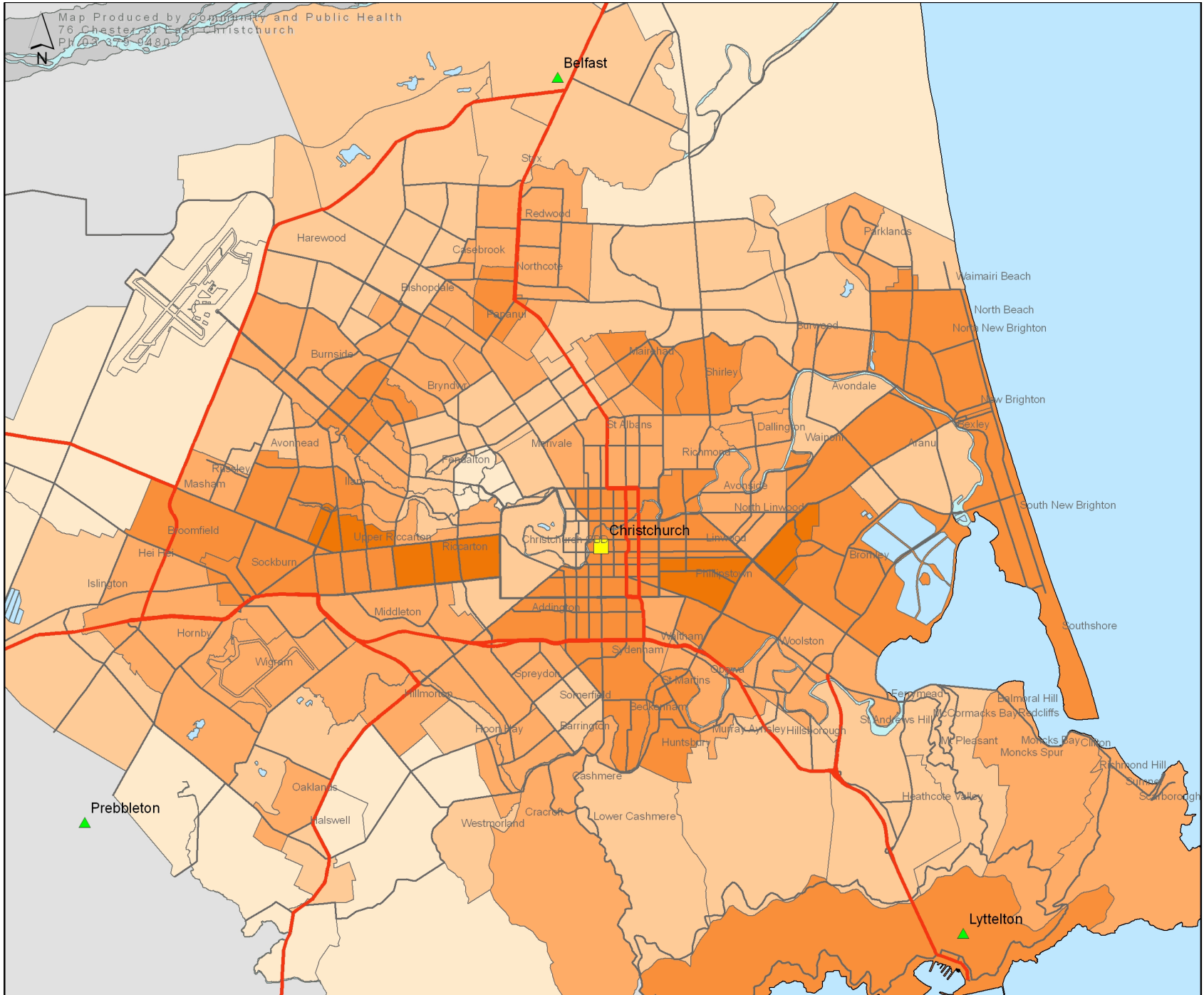
**Christchurch:**  
Proportion of travel to  
work by bicycle by CAU  
(Census Area Unit)  
2006 Census



Jenks (natural breaks) classification



Map Produced by Community and Public Health  
76 Chester St East Christchurch  
PH 03 378 8480



**Christchurch:  
Proportion of travel to  
public transport (bus)  
(Census Area Unit)  
2006 Census**

- State Highway
- Arterial Roads
- % Travel to work public transport**
- 0% - 2.2%
- 2.5% - 4.3%
- 4.5% - 5.8%
- 5.9% - 8%
- 8.4% - 12%

Jenks (natural breaks) classification

## Appendix Two – Costs and Benefits of different forms of community engagement

This Table can be found at <http://www.improvementnetwork.gov.uk/imp/aio/1000352>

Technique	Good for	Problems / beware of	Cost
<p><b>QUESTIONNAIRE AND SURVEYS</b></p> <p>Postal, telephone, in person, service specific or corporate. In home, in street, at point of service use. This group of techniques includes a vast variety depending on numbers reached, nature of the questions, whether conducted by interviewers or self completion, where people are contacted, etc.</p>	<p>Larger numbers, so able to obtain representative view. Because specific and quantifiable, able in principle to compare over time and with results elsewhere. Also able to use as targets and for performance measure.</p> <p>Useful where questions and issues understood (e.g. about people's personal experience) but need to be tested quantifiably.</p>	<p>Doesn't allow for two-way dialogue; no chance for discussion or deliberation so not useful in areas where respondents are likely not to be well informed.</p> <p>May not get accurate picture of groups making up a small proportion of the community (e.g. ethnic minorities in some areas, or users of services which affect small numbers, such as pest control).</p> <p>Questions have to be meaningful, understandable and useful.</p> <p>Need statistically robust selection.</p>	<p>£20-30k for 1,000 interviews in people's homes.</p> <p>£3-10k for 500-750 person postal survey.</p> <p>If done in-house do not underestimate skills required (badly phrased or uninformative questions can nullify any benefits and so prove very costly).</p> <p>Analysis can be extremely time consuming.</p>
<p>Telephone polling</p>	<p>Telephone polling can be carried out very quickly. It is cheaper than household surveys. Lower refusal rate than self-completion postal surveys.</p> <p>Personal contact without the intimacy of face-to-face, which may mean more, or less, information volunteered.</p>	<p>Telephone polling excludes those without a phone, who may be the more disadvantaged.</p>	
<p>Technique</p> <p>Self-completion questionnaires</p>	<p>Good for</p> <p>Self-completion questionnaires are cheaper but less reliable.</p> <p>Respondent has more time to consider answers. Less scope for interviewer bias, but may misinterpret questions.</p> <p>May be easier to reach people</p>	<p>Problems / beware of</p> <p>Self-completion questionnaires may be unrepresentative depending who decides to complete them. May disadvantage those who have difficulty with the reading or the language used.</p> <p>Also less control over who completes</p>	<p>Cost</p>

<p>CITIZENS' PANELS/ STANDING RESEARCH PANELS</p> <p>Ongoing panels of around 1,000-2,000 representative of the local community, surveyed several times a year, usually by post or phone. Panels can also be used in other ways, in the whole or sub-groups for deliberative workshops, focus groups etc. Once some or all become more knowledgeable, they become less representative.</p> <p>Technique</p>	<p>geographically dispersed. If sending to larger numbers of people is more inclusive and seen to be consulting people.</p> <p>Being taken up by many authorities, since using the same panel a number of times reduces recruitment costs. Since people agree to be on the panel, should increase response rates. May allow for some measurement of changes over time, though there are disagreements over the statistical validity of this.</p> <p>Good for</p>	<p>them and how.</p> <p>Risk could become simply a 'fashion'. People on the panel become more knowledgeable than the general public over time, and therefore less representative, so need turnover of the panel (about a third per year), which may reduce validity of tracking over time. Volunteering to respond to several surveys may mean they are more 'willing' than the population at large.</p> <p>Problems / beware of</p>	<p>Should be cheaper than the equivalent one-off survey. Costs depend on size of panel, means of recruiting, method of polling, whether costs shared with other agencies. Reported costs, in one case £5k p.a. for telephone survey. In another, £25k set up, £8k p.a. + £5k staff costs.</p> <p>Cost</p>
<p>DELIBERATIVE OPINION POLLS</p> <p>Representative samples are used (representative demographically but also representative of attitudes based on an initial, broader, baseline survey) but participants have the opportunity to learn about and discuss the issue, questioning experts, so they can make informed and thought through judgements. 250 to 600 people might meet over 2-4 days with polls taken at the beginning and end of the event.</p> <p>REFERENDUMS</p> <p>Asking a question of the whole</p>	<p>The best of all worlds – informed but representative views.</p> <p>Useful on issues where everyone is</p>	<p>Expensive. (Have often been done in conjunction with media organisations, which could help share costs). As with any provision of information there is always the risk of bias.</p> <p>Not appropriate for many issues, e.g.</p>	<p>Approx £250k for local poll to several millions for national one.</p> <p>In addition to the normal costs</p>

<p>population. May be carried out using normal election machinery, by post etc. If not binding, more likely to be called ‘citizens poll’.</p>	<p>felt to have a right to have a say and which are felt to be important locally and the results will be acted on. Provides a clear mandate for action.</p>	<p>when respondents do not have the knowledge or skills to make a judgement, or for complex issues not subject to ‘yes-no’ answers. It should also be on an issue that can be considered on its own, independently of other questions. If turnout is low may not be</p>	<p>associated with a large-scale survey, there may be additional costs ensuring that only those qualified to do so vote. Costs may depend whether ballot is in person, postal, electronic or a combination.</p> <p>There will information and publicity costs to ensure that</p>
<p><b>COMMENTS AND COMPLAINTS SCHEMES</b>  Comments cards or suggestions boxes, in reception or at point of service delivery; systems for ensuring any comments or complaints are dealt with systematically and recorded so that lessons can be learnt.</p> <p><b>INVITATIONS FOR WRITTEN INPUTS</b>  General request for comments, from the public at large or from service users. Often distributed through council newspaper or leaflets, either limited coverage or</p>	<p>Being aware what’s going wrong – a free source of detailed information about how services are working. Complainants properly dealt with are likely to be more satisfied evenly than if nothing had gone wrong in the first place!  Another possible source of new ideas.</p> <p>Gives anyone the chance to have his or her say. Inclusive. Lets people know you are listening.</p> <p>Responses take into account</p>	<p>representative.  A majority view may not be the ‘community view’ – need to consider interests of minorities.</p> <p>May not be representative. Ideally (i.e. if not anonymous) results of suggestions should be fed back to those making them. A good and well publicised complaints scheme should encourage complaints, so the number of complaints received shouldn't be used as an indicator of success. Needs to be a culture and attitude that welcomes and encourages comments and complaints and ensures that something is done about them.</p> <p>May not be representative. Frequently get low response rates (e.g. a few hundred responses, from 30 –50,000 distributed) unless it’s of importance to people</p>	<p>decisions are as informed as possible.</p> <p>Most authorities have systems already, however a little time and effort may be needed to ensure that they are comprehensive and effective.</p> <p>Printing costs.</p> <p>Distribution (council newspaper, with local free paper, hand delivery, discounted bulk mail).</p>

<p>to all households. This may be just one or two open or closed questions. A rather different alternative is publication of consultation documents on which the public and interested bodies are invited to comment.</p> <p><b>PUBLIC MEETINGS</b> One-off rather than ongoing forums. Needn't be the traditional evening spent in a cold hall being harangued from the platform. Can allow opportunities for small group discussions and feedback through oral reports, sticky notes stuck on walls, electronic voting etc. There may be opportunities for those present to set or influence the agenda, for instance in small groups or through the questions asked.</p>	<p>information given in leaflet, so more informed. May be qualitative or quantitative (tick box) information.</p> <p>Gives a large number of people, with open invitation, the chance to have their say. An opportunity to explain and give information. If organised effectively, the potential for informed discussion and hearing the views of a large number of people. Demonstrates that the council is listening, and may be reported more widely (in local media) to reach those who do not attend.</p>	<p>(e.g. community safety). Impossible for the information given in the leaflet or newspaper to be totally objective and neutral so may skew responses. Where open-ended questions are given (rather than 'tick boxes') it may be hard to analyse responses, if do get larger response or, say, several thousand.</p> <p>Beware traditional format with people behind a platform making the presentation. This give the audience little chance to contribute and encourages conflict. Need to give careful thought to timing, location and venue, publicity, facilities etc. Could lead to bad media publicity, especially if confrontational. Unlikely to be representative – not everyone has the time, ability or inclination to attend.</p>	<p>May be possible to keep costs down by doing in conjunction with some other distribution. Analysis (some councils have been unprepared for large responses and have been swamped).</p> <p>Hire of hall. Advertising and publicity. Handouts or subsequent reports. Officer time. Break out rooms ideally required to help small group working (probably have to have more than one group in each room). Need plentiful supply of flip chart paper, blue tack, Post-it notes etc.</p>
	<p>May be more effective in smaller communities than across the whole town or city. Meetings may be regular, covering a range of issues, rather than one offs. Such assemblies need careful organising and management to be effective.</p>	<p>Attendances often low unless people feel personally and deeply concerned and/or affected. Many people likely to be inhibited from speaking in large group.</p>	

<p><b>AREA/NEIGHBOURHOOD FORUMS AND PANELS</b></p> <p>Meetings involving citizens in a particular geographically defined area (rather than councillor only area committees). May be on particular service or more general. Having officer and/or member involvement. Membership may be set (e.g. local groups) or open to the public. A budget may be devolved to the forum (usually formally to a council committee or to officers). Agenda may be set in advance or formulated at the time according to participant concerns.</p>	<p>Good for reaching people in their own areas and addressing specific local concerns. Can relate to natural communities.</p> <p>If all relevant agencies are there (police, health etc.), all complaints can be dealt with, which increases credibility with the public.</p> <p>A relatively small budget can be quite significant for a small area (considering this is a 'top up' on regular council services).</p>	<p>Needs commitment to keep it going. Be prepared for people to be mainly airing complaints in the early stages.</p> <p>Involve ward councillors. Need to avoid domination by small cliques.</p> <p>Danger of them becoming rule bound and bureaucratic.</p> <p>Danger of confusion or conflict over the respective roles of Councillors and other local representatives.</p>	<p>Cost of officer time in arranging and attending. Hire of rooms. Publicity.</p>
<p><b>SERVICE USER GROUPS</b></p> <p>Regular meetings of users of a service, either with fixed or open membership. May be self organised and/or selected, or selected by the council. The nature of the group, and especially how representative it is will vary accordingly. They will also vary in any rights to make recommendations to council committees or share decision making</p> <p>Ongoing groups, established by the</p>	<p>A chance to discuss the issues with the people who know. Can help generate new ideas and provide early warning of problems. Because ongoing allows follow up discussions, and building up rapport and trust over a period of time (though may need turnover of membership so do not become too close to the organisation).</p> <p>Council can design the group to meet</p>	<p>May not be representative – might have to check out significant findings on statistically representative sample. Unlikely to represent non-users. Some services don't have 'users' – or the people dealt with are not the ones for whom the service is provided. As with all such groups, the members need to be clear on what basis they have been selected, their role and how much power they have.</p> <p>May be harder to recruit people to a</p>	<p>Cost and time of recruiting members, and the administrative costs of running meetings, including hire of venue, advertising and payment of travel expenses. Costs of analysing outcomes. There are also costs (e.g. giving up free time) for volunteers on the groups.</p> <p>Depends whether specialist</p>

<p>council for consultation, focusing on a particular issue or citizen group, e.g. youth assemblies</p>	<p>its needs (so e.g. not relying on ‘self-selected leaders’).</p>	<p>council panel than allowing people to organise themselves.</p>	<p>company used for recruitment.</p>
<p><b>PUBLIC INVOLVEMENT IN HEARINGS AND SCRUTINY COMMITTEES</b></p> <p>Ad hoc or ongoing gatherings involving users, members of the public and other interested bodies usually alongside councillors, reviewing performance or investigating some general or cross-cutting issue.</p> <p><b>INVOLVEMENT IN COUNCIL COMMITTEES AND BUSINESS</b> Public question time at council and committees; petitions; cooption onto committees (though usually now without the right to vote).</p> <p><b>EXISTING INTEREST OR SPECIALIST GROUPS</b> Regular consultation with existing bodies including parish councils, other public sector bodies, private</p>	<p>Likely to be tied directly into the policy-making process. Allows direct, systematic dialogue between councillors and community interests. This model could be used for Best Value reviews.</p> <p>Cheap and gives the public the chance to get involved, have their say or raise questions should they want to. In theory open to everyone so inclusive. Could be a valuable long stop.</p> <p>Relatively cheap, because these bodies already exist. Should have an in depth</p>	<p>Formality of the process may put some people off. Will not necessarily get a representative view.</p> <p>Involves a limited number of people. Many people will be unaware or unwilling to get involved. Unlikely to be representative. Risks becoming a conflict.</p> <p>May not truly represent their constituency. They may be operating with</p>	<p>The usual meeting costs, including meeting expenses of members of the public.</p> <p>Publicity for the scheme. Expenses for co-optees.</p> <p>The direct costs of communication. Maintaining records of the various</p>
<p>sector organisations, specialist groups, professional bodies, interest groups, ethnic minority groups, voluntary and advice</p>	<p>knowledge of their particular community, perhaps including groups the council finds it hard to reach.</p>	<p>limited time and money and could become easily overburdened. Many services regularly approaching the same groups can lead</p>	<p>groups (voluntary officers of a society may well change each year).</p>

<p>giving bodies, civic societies, sports and leisure societies and reading circles and other stakeholders.</p> <p><b>FOCUS GROUPS</b> An established market research technique where an issue is explored in depth for one or two hours through structured but open ended discussion by a group of around eight-ten people, representative of a particular sector, led by a trained facilitator. Keeping similar types of people together helps reduce inhibition and promote discussion.</p>	<p>Often have specialist expertise in their area of concern. Perhaps best used as a starting point, to raise questions, rather than believing they provide the answers. Able to build a relationship of trust and co-operation over a period of time. The groups can develop specialist knowledge and so give informed views.</p> <p>Good for issues where need in-depth qualitative view. Useful to generate questions for quantitative analysis or analyse and explain after quantitative survey. Can be used to assess reaction to proposed changes. Avoids just hearing the ‘loudest voices’. May be used to focus on sections of the community commonly excluded or overlooked. Group discussion allows ideas to be built on, and directions taken not initially thought of, rather than</p>	<p>to ‘consultation fatigue’. Need to be sensitive to the particular circumstances of the body and treat it as a partnership, developing a relationship over time not an automatic right and duty to hear their views.</p> <p>Because of small numbers, can’t be guaranteed to be statistically representative of the community as a whole. May need a number of groups to cover all relevant groups. Worth doing using specialists, probably outside company.</p>	<p>About £1,0001,500 per group if commissioned externally (unlikely that the true costs would be any less if done in-house).</p>
<p><b>CITIZENS’ JURIES</b> Group of 12-16 citizens, representative of the local community, who take evidence and deliberate over 4/5 days and recommend to the local authority,</p>	<p>follow single individual’s view or preset questions.</p> <p>Good for involving citizens in significant decisions. A valuable model for harnessing citizen commitment and obtaining informed opinions.</p>	<p>Costly, so pick the issue carefully. Because of small numbers, not necessarily representative of the community as a whole. To the extent that outcomes are representative, they</p>	<p>£17,000-23,000 if outside professionals are used for selecting the jury, moderation etc. This does not include the considerable amount of staff time</p>



<p>which still takes the final decision. This produces an informed and collective view, resulting from deliberation.</p> <p><b>OTHER DELIBERATIVE PANELS/‘CITIZENS’ WORKSHOP’</b>  e.g. where a representative group of citizens are brought together to learn about, discuss and give their views on an issue. Typically 12-20 people might be brought together for a day, or might meet for a couple of hours on several occasions. Some health</p>	<p>Many of the advantages of Citizens’ Juries without the costs. Allows participants to develop stronger relationships than in a focus group.</p> <p>Depending on the model it can allow knowledge to be built up</p>	<p>will be representative of what the community would think if exposed to all this information, i.e. their informed rather than ‘naïve’ view. The sponsoring body (i.e. the council) has to be prepared to accept the results or else the process rapidly loses credibility.</p> <p>You get what you pay for. The less time you spend, the less well informed the consultees are. Because of the small numbers, you cannot be sure the results will be representative of the community as a whole.</p>	<p>involved both in preparation and running the jury.</p> <p>Depends whether expert help is bought in, whether any expense payments are made etc. Can take considerable officer time.</p>
<p>authorities have health panels, each of 12 members representative of various demographic characteristics, meeting 3 times a year, with parallel panels discussing the same topics. ‘Consensus conferencing’ has been used in Denmark and by the Science Museum where 10-20 lay people question scientists or other specialists before reporting consensus conclusions.</p> <p><b>PICTURES, METAPHORS AND DRAMA</b>  People are invited to express their</p>	<p>over a period of time with ample opportunity for reflection (and discussion with others)</p> <p>Can be a good way of defining the</p>	<p>May require a leap of faith by</p>	<p>This is something likely to be used as</p>

<p>thoughts and feelings in other ways, such as through drawings, art or plays. Could include a role play of how would ideally like to experience the service. Used for groups with common experiences and/or identity.</p>	<p>agenda, unconstrained by limitations of words or prior assumptions. Can allow feelings and emotions to be expressed which difficult to put into words or which unconscious or repressed. May be helpful for those who have difficulty with language. Not just for use with ‘disadvantaged’ groups, can also provide insights into the thinking of ‘high-flying executives’. Can be enjoyable and creative.</p>	<p>participants so some skill and experience by facilitators. Some people may feel self-conscious, particularly with drama. May be difficult to analyse what is really meant or to summarise it all accurately.</p>	<p>part of other activities. The main costs will be of skilled facilitators (including possibly assistants), materials and the time of those involved. May also involve costs of transport, childcare and other expenses incurred by participants.</p>
<p><b>VISIONING EXERCISE</b> Helping a community establish a vision of the sort of future they would like for their area (e.g. Local Agenda 21). May involve picturing alternative futures. ‘Future Search’ is one specific approach described in a book of the same name by M.R. Weisbord and S. Janoff, 1995, where stakeholders are brought together for a three day conference. Aims to produce consensus.</p> <p><b>SAMOAN CIRCLES</b> A way of managing participation in a large group. Inner circle of five to six chairs, rest in outer circle. To speak most move to inner circle. Stand behind inner circle chair to wait for a chair, and then return to original seat afterwards.</p> <p><b>PARTICIPANT LED SESSIONS /</b></p>	<p>Useful for community planning and the corporate aspects of Best Value. Broad and exploratory. Can start to deal with conflicting interests. ‘Consensus’ may be not just a point between the extremes and something less than each party wants, but creative, with new ways of thinking about the issue.</p> <p>Produces some of the benefits of small group dynamics. The formal management of participation draws attention to and helps manage domination of proceedings by individuals.</p>	<p>New area for most people – requires particular skills, e.g. in facilitation and broad, ‘blue-sky thinking’. There may be conflicts of interest which cannot be resolved, or not simply.</p> <p>A lot of people are still not able to speak most of the time and may not feel able to push themselves forward.</p>	<p>Time taken to organise. Possibly cost of specialist facilitator. Cost likely to be £5,000-10,000.</p>

<p>FACILITATED WORKSHOPS / WAYS OF HELPING</p>	<p>These are ways of improving other sorts of event as much as techniques in themselves.</p>	<p>Need training and familiarity with the approaches before trying them out. They may put some people</p>	<p>Few additional costs beyond that for the meeting (but possibly including cost of facilitator). Flip</p>
<p>PARTICIPANTS SET THE AGENDA</p> <p>Range of techniques available, often borrowed from training and management development. Examples include whole systems events and open space. Participants set the agenda on the day, e.g. by writing concerns on post-it notes, sticking them on the walls and arranging them into themes. Workshops are held, then written up and distributed to participants. Nominal group technique involves listing views or ideas, individuals select most important and rank them, this then collated into overall ranking.</p>	<p>Very valuable in letting participants set the agenda without domination by the council or particularly vociferous elements. Doesn't substitute for discussion, but helps to moderate it, ensuring that all voices can be heard.</p>	<p>off, to begin with, as being strange and trendy (but most people see the benefits in use).</p> <p>Any individual technique may not give the whole answer, e.g. may just identify problems or issues, get suggestions. May still be a need for full discussion, expert input, consensus building etc.</p>	<p>charts, post-it notes, pens.</p>
<p>OPEN SPACE</p> <p>Very flexible approach where those present determine the issues discussed. Starts with individuals identifying issues in which they are interested and prepared to take responsibility for leading a workshop. Participants sign up for the workshops, which are recorded for feedback at the close of the event or shortly after. Principles emphasise flexibility,</p>	<p>Good for addressing difficult issues, involving a large number of people, particularly where there are conflicting views.</p>	<p>A good idea to get some experience of the approach before trying it out. It may seem new and different to some people, but reactions to it generally seem to be very positive.</p>	<p>Cost of a facilitator for the day, a large venue and stationery (flip chart paper, something to stick it to the wall, marker pens, post-it notes, etc.).</p>

<p>informality and responsibility to go to where you can learn or contribute.</p> <p><b>CONSENSUS TECHNIQUES AND CONFLICT RESOLUTION</b></p> <p>Ways of bringing people together to try and find common ground and new ways of more fully meeting the needs of each side.</p> <p>May be on a specific issue, e.g. a development, or more generally concerning the future of an area or community. Variations in how far solutions are proposed by outside facilitator. 'Round tables' bring together key stakeholders.</p> <p><b>EXHIBITIONS, ROADSHOWS AND OPEN DAYS</b></p> <p>Where the opportunity is taken to listen as well as to give information out. Information can be collected through self completion questionnaires, comments cards, questions asked by interviewers or members or staff, through informal discussions (with main points noted), through post-it notes (which can then be grouped by theme) etc.</p>	<p>Allows more positive outcomes than traditional approaches.</p> <p>Rather than merely finding a compromise, which does not exactly meet anyone's needs, may produce totally new ideas.</p> <p>Getting out to people. Both give and receive information.</p> <p>Information can be given in a range of ways (words, pictures/graphs/diagrams, models, etc. and can provide for first hand experience).</p> <p>Drop-in facility means it can be convenient for more people.</p>	<p>Requires specialist facilitation. Real conflicts may require specialist mediation, or may be completely intractable. Participants need to be willing to participate.</p> <p>Depending on numbers and who attends, may not be representative of the community as a whole.</p> <p>Need to have something people will want to see.</p> <p>Can't be guaranteed to be representative - self-selection in who attends and who completes questionnaires (collecting demographic information will help determine how representative the views are).</p> <p>Normally only a limited range of options is given, but opportunities can be given to generate new ideas e.g. by writing on a map, or</p>	<p>Takes time. Requires trained facilitators.</p> <p>The principles will be familiar to most people.</p> <p>Cost of putting together materials, hire of venues and time of staff attending.</p> <p>Advertising costs.</p> <p>Cost of any give-away items (such as pens, carrier bags).</p>
<p>Information can be given through display boards, models, written material, video, tape-slide etc.</p> <p>May be an opportunity to visit council facilities, see locations,</p>		<p>through planning for real exercises.</p>	

<p>machines, equipment etc. directly.</p> <p><b>PLANNING FOR REAL</b> Pioneered by the Neighbourhood Initiatives Foundation in the 1970s. Models are used interactively to allow the public to influence planning, development and other environmental issues. People can move around parts of the model to identify problems or solutions, or stick post-it notes on, with their comments</p> <p><b>IN-DEPTH INTERVIEWS</b> One to one interviews, usually lasting between half and two hours. There may be variations in how fixed the questions are, but will commonly be 'semi-structured', i.e. fixed areas to cover but allowing follow up of issues in more depth or not</p>	<p>Allows communication in a medium most people can work with, not requiring high literacy. People can see the results of different options. People involved in the decision making, making use of local knowledge, helping generate options, not just consulted on them. Allows people to raise problems in a nonconfrontational way. Particularly appropriate for physical / geographical issues.</p> <p>Allows you to probe issues in depth, and gives the individual the chance to give their full views without influence from the rest of a group. Useful for the right kind of issue (e.g. significant and difficult, where individual's views can be enlightening, and for sensitive</p>	<p>The right tool at the right time and place. NIF suggest full benefits may not be achieved without proper training.</p> <p>People need to attend to be involved so may exclude some and not be totally representative.</p> <p>A lot of effort in getting a few views. Unlikely to be representative necessarily, unless a lot of time/money spent on it (to interview enough people).</p> <p>Interviewees may feel vulnerable on their own.</p> <p>Need for skilled interviewers.</p>	<p>Training in the technique (provided by NIF). Can take a lot of time and effort to organise. Cost of the model – though may be produced as part of broader project.</p> <p>Cost of employing external consultants for all aspects (plan and prepare for the day, building models and analysing results) could be £4-8,000.</p> <p>Cost of specialist interviewers. Writing up time is not inconsiderable. (Allow one-two hours per interview, two-three hours to write up, one hour to read plus travel time and overhead for preparing questions, administration etc). Taping ensures accuracy but adds considerably to time and may be</p>
<p>originally thought of.</p> <p><b>TAPPING PEOPLE'S EXPERIENCE</b> <b>MYSTERY CUSTOMERS</b> An outside person uses the service and takes detailed notes. May be in person, by phone, post or internet. Can be done on a reciprocal</p>	<p>issues).</p> <p>Makes use of real experiences at point of use rather than later or general impressions. Precise and detailed information</p>	<p>May not be representative, particularly if you only have one example. Usually need a real case to be</p>	<p>off-putting for interviewees. Lot of time required to read results, or else depend on expert analysis.</p> <p>Should be able to arrange on reciprocal basis with another organisation, so main costs officer time in organising, implementing and</p>

<p>basis with another local organisation. Ask people to keep diaries of use of a service; etc. See also Observation below.</p>	<p>about services. Useful for checking certain sorts of things, e.g. how easy to find facilities, how dealt with.</p>	<p>meaningful (e.g. details of repairs for a housing case.) It may be safest not to volunteer to reciprocate with a hospital's accident and emergency department. Mystery shoppers should be as typical as possible of real customers and should not (normally) be too knowledgeable. Care needed in presenting the idea to staff so not seen as underhand. Market Research Society has best practice guide which says employees should be told in advance but not when it is going to happen. This may lead to atypically higher performance during this period. Important to highlight good as well as bad practice.</p>	<p>evaluating. Could become quite expensive to obtain enough examples to be statistically representative.</p>
<p><b>ELECTRONIC COMMUNICATIONS</b> The use of the internet or other IT network such as cable T.V. allowing interaction between the public and the authority.</p> <p><b>VIDEO BOX, VIDEO LINKS</b></p>	<p>Relatively cheap. Convenient - can be used from own home.</p> <p>Allows provision of information and discussion as well as collection of views. Extensive documentation can be made available on the web without large printing costs, and allowing selective access.</p> <p>Impersonal.</p>	<p>Limited number of people have access, e.g. to Internet. Different personal preferences in use of technology. Impersonal.</p> <p>For survey may be hard to verify accuracy of respondent details (so may get some multiple replies, replies from outside the area etc).</p>	<p>Running costs generally low. Initial infrastructure costs. 'Human costs' such as training may be higher. Specialist help usually required in designing web pages, discussion forums and possibly analysing responses.</p>

<p>Opportunities for the public to leave messages or make direct contact with council staff by recording a video message or through video conferencing. Opinions can also be recorded on audio or video using conventional recorders.</p> <p><b>CONSULTING EMPLOYEES</b> Any consultation of employees (which may use other techniques listed here). Other activities such as Quality Circles may also contribute to employee involvement.</p>	<p>Ability to have direct contact with staff from a remote office. Useful in remote areas or where transport difficult (though early pioneer is Lewisham, London). Recording comments allows users to use their own words without high facility in written language.</p> <p>May produce good ideas about how services are provided, often based on close contact with customers. Employees have a personal, and valid interest in how services are provided.</p>	<p>Costs of setting up the infrastructure. Some people prefer the human link. Never likely to have large number of video boxes.</p> <p>Needs to be more than just tokenism or it will soon fall into disrepute. Criticisms need to be welcomed with no risk of blame or reprisal. May be a need for independent facilitation and guarantees of anonymity for people to really open up.</p>	<p>At least one authority felt their video box was not value for money. [Examples of other experiences welcome.] Relatively expensive way of collecting views. Watching/listening to recorded comments is time consuming, or expensive in obtaining transcriptions.</p> <p>Costs depend on approach used, but any costs of mailing or sample recruitment should be lower given that a database of employees already exists.</p>
<p><b>USE OF FRONT LINE STAFF</b> Systematic collection of information from those who have direct contact with the public. This may be through discussion groups, workshops or surveys, regular meetings, informal discussion, upward briefing, ad hoc memos or email, through records such as a day book, statistics of numbers seen, etc.</p> <p><b>INFORMAL CONTACTS</b> Making use of any conversations by officers or members with the public; feedback from members of their involvement in outside bodies.</p>	<p>Makes use of existing information (LAs have contact with more than 50 per cent of their public each year).</p> <p>Involves the staff and may be useful part of ‘empowering’ and delegating.</p> <p>Cheap, understandable by the public. Demonstrates genuine listening.</p> <p>A good way to introduce and explore ideas, which can then be</p>	<p>Frontline staff are ambassadors for the council. Need good support and training. Mechanisms needed for systematic feedback.</p> <p>Staff may become cynical and disillusioned if nothing is seen to be done with results.</p> <p>Effort required to record results systematically. Strong risk of bias in who is listened to and which messages are accepted, remembered and recorded.</p>	<p>Cost in setting up systems. Time spent recording, communicating and analysing results. If want to discuss with staff in depth may mean taking them from their positions and paying for replacement cover.</p> <p>A little extra time for conversations but generally part of what would be doing anyway. The main additional time in setting up systems, recording and analysing.</p>

<p><b>OBSERVATION</b>  e.g. how people use reception desk, counting numbers using leisure facilities. May also be used to see how services are provided (directly to public or in back office). Can be done through direct observers, shadowing, cameras or closed circuit television.</p>	<p>followed up and tested more systematically.</p> <p>An accurate record of people's behaviour as opposed to what they say they will do. Could be used in conjunction with piloting changes.</p>	<p>Can be time consuming. The only information is what can be observed, not how people feel and think about the service.</p> <p>There may be some (probably unconscious) observer bias. People may not act naturally if they know they are being observed.</p>	<p>Cost of time involved in ensuring that procedures are robust, and time taken in observation. Time and cost involved in recruitment, payment, training and briefing of observers. Time to analyse data. If video is used, analysis likely to take considerable time.</p>
<p><b>DESK RESEARCH / OTHER DOCUMENTARY SOURCES OF INFORMATION</b>  For instance, information from national surveys relevant to the area; bringing together and analysing information collected for other purposes, e.g. returns to government departments, computer records of numbers using facilities; building up profile of an area; village appraisals.</p> <p><b>MASS MEDIA (LOCAL, REGIONAL OR NATIONAL NEWSPAPER, RADIO OR T.V.)</b>  Information out - editorial</p>	<p>Cheap. It may be the only feasible alternative in difficult or specialist areas (e.g. what are the long term social costs of drug abuse)</p> <p>Allows two-way communication with</p>	<p>Need to think through the ethics, particularly when observing people's work behaviour. Should have their willing consent.</p> <p>Can be time consuming.</p> <p>You have to accept what exists rather than what you need, and it may not be exactly the right information or in the right format. If based on research nationally or elsewhere may not exactly match local position. Skills required finding, analysing, interpreting and reporting on the information.</p> <p>May be a slant by the media</p>	<p>The main cost is for someone to do the research. There may be some additional costs purchasing reports, accessing databases etc.</p> <p>Cheap. Ideally requires person with</p>



<p>coverage, news items on T.V. and radio, features and ‘magazine’ items.</p> <p>Letters pages, interviews with members of the public, phone- ins, surveys commissioned by the media organisation.</p>	<p>large numbers of people, albeit indirect and mediated by the media organisation.</p> <p>High profile (especially with Members). May get to people not reached in other ways, but does not reach everyone.</p>	<p>organisation in selection of material (including the public’s letters and council’s press releases) and how presented.</p>	<p>relevant skills, knowledge and experience to deal with the media. Time required to monitor output, respond, generate material, do interviews etc.</p>
<p>The specialist press can be used to target particular groups, such as certain parts of the business community, or those hard to reach through other means, including some ethnic minorities, gay and lesbians, etc.</p> <p><b>PILOTING SERVICE CHANGES</b></p> <p>Make changes to the service or parts of the service and survey users on their reaction.</p> <p><b>DIRECT USER INVOLVEMENT</b></p> <p>User management of services (e.g. community-run nurseries or youth clubs; increased choice in service; involvement at point of service delivery; citizen street monitors reporting on litter, street lights out etc.</p>	<p>You find out how people will really react, rather than what they say they will do.</p> <p>Letting people choose directly removes possible distortion by Council decision makers.</p>	<p>Not necessarily practical or cost effective for major changes. Area of change needs to be as representative as possible of the whole service. Some changes may require long time to take effect or only work on a large scale, so pilot is not infallible guide.</p> <p>You may also need the input of professionals and those who can consider the bigger picture.</p>	<p>Depends on the type of change, but since it is on a smaller scale than changing the whole service may be proportionately more expensive (because doesn't exploit economies of scale).</p>

(Acknowledgements – specific references are not given here for reasons of space, but this section has relied heavily on other publications and information from officers in authorities for which we are very grateful. This includes internal guides produced by Islington, York and Birmingham, as well as the following publications:

Stewart, John, *Innovation in Democratic Practice*, Birmingham, Institute of Local Government Studies, 1995

Stewart, John, *Further Innovation in Democratic Practice*, Birmingham, Institute of Local Government Studies, 1996

Stewart, Prof. John, *More Innovation in Democratic Practice*, Birmingham, School of Public Policy, University of Birmingham, 1997

Walker, Perry and Lewis, Julie (eds), *Participation Works! 21 techniques of community participation for the 21st century*, London, New Economics Foundation (no date)