Background to the HIA
This report is structured into Eight chapters. This is detailed below:

**Chapter One: Overview**
- A Vision for Wiri in 2030
- Executive summary

**Chapter Two: Background to the HIA**
- Background to the Wiri SSP
- Overview of this project and the HIA process
- Wiri community history
- Health and population profile
- Literature review, discussing the four main themes and how they relate to and impact health

**Chapter Three: Key Findings**
- Potential impacts and enablers for the four key focus areas - access, housing, safety and economic potential - discussing the main thoughts and recommendations from the consultation process.

**Chapter Four: Whanau Ora consultation Report**

**Chapter Five: Children and youth consultation Report**
- Wiri Central School – Child report
- Children’s Art
- Manurewa High School – Youth report
- Dream Youth Centre Extreme group – Youth and Pacific Population
- Child and Youth consultation findings and conclusions

**Chapter Six: Older Person’s Consultation Report**

**Chapter Seven: Recommendations**
- Detailed set of recommendations for action and discussion of how the momentum of this HIA can be maintained into the future

**Chapter Eight: Evaluation and reflections**
- Evaluation and reflection on our work to date

**Appendices:**
- The Appendices cover additional documents including:
  - Details of participants of each workshop and main HIA meetings and frameworks that supported analysis of the findings.
  - HIA Scoping report

Note: For details and information on the Health Impact Assessment process and Spatial Structure please see appendix Three.

5.1 Who is involved in this HIA?
The Healthy Cities team from Manukau City Council led this HIA in partnership with the Urban Design team. Expertise and support was provided by Synergia, an Auckland based consultancy specialising in HIAs. The activities that Manukau the Healthy City led included; sponsorship of the HIA, partnering with Maori and Pacific providers and the community, preparation of key materials / reports and leading all stakeholder and project meetings.

5.2 Where it fits within Manukau City Council
Te Ora o Manukau – Manukau the Healthy City Charter 2007, is committed to improving the quality of the life and wellbeing for all Manukau people and to Te Tiriti o Waitangi, by making it a healthier place to live, work and play.
Manukau the Healthy City has a vision to develop a social and physical environment that improves and protects the health of communities and groups, where the social environment may include political, economic, social and cultural factors and structures.

Manukau the Healthy City supports the formal objective of the HIA ‘learning by doing’ investment to create capacity on HIA / WOHIA and build on an evidence base of HIA / WOHIA practice, as well as build on previous HIA’s and further embed HIA practice within Manukau City Council and into the new Auckland Council from 1 November 2010.

5.3 Key considerations
This HIA considered the following large developments within the area:
• The construction of State Highway 20 and adapting to its impacts
• Wiri being an area identified for intensification as Auckland grows, through the Manukau City Council District plan and by Housing New Zealand, The 1999 Regional Growth Strategy
• The future development of key blocks of land in the area; TelstraClear, Manukau Health Park, Housing NZ land and houses, and Manukau City Council land
• The Unitary Auckland Council from 1 November 2010 (including the requirement for it to develop a spatial plan)
• The new education campus, train station, hotel, library, car parking and AUT Campus at Manukau City Centre.
• The development of The National Walkway

6 • WIRI SPATIAL STRUCTURE PLAN

6.1 Spatial structure concept
A ‘Spatial structure’ is a concept relating to the design of an urban area and consists of the arrangement of streets, open spaces, and transport corridors in relation to the topography of the landscape.

A spatial structure plan is a 3-dimensional design which defines the strategic built outcome for a place. It does this by defining the street and block patterns together with building envelopes relative to the landform and existing development. It does not deal with the detailed architectural design but it does relate building areas to their proposed uses such as commercial versus residential. It has the capacity to provide for alternative uses or building forms.

The spatial system is a key component in establishing identity and variety. This occurs by the way in which the streets are organised over the land relative to human sight lines as defined by the buildings. Good spatial structure plans build in “identity” without the need to “force” the architecture.

Spatial structure plans should provide street patterns, open space, building envelopes, parking capacities, and possible entrances.

Well-designed spatial structure plans:
• Enable the creation of a legible public domain which has the potential to be safe and well used
• Enable the creation of a street system which supports existing and proposed uses; maximises accessibility to community facilities, schools, and shops; provides choice and supports multiple transport options; and reveals the topography, thereby creating a basis for variety and identity
• Support public safety by building in “eyes on the street”
• Minimise the impact of density though street layouts and clear view lines so that people feel comfortable even though densities may be high
• Provide greater opportunities to ensure natural light, outlook, privacy (visual and audio) and solar access in buildings (relative to their use)
• Provide financial benefits including land efficiency, optimisation of land development and streamlining resource consent processes
• Enable development capacity to be maximised and / or optimised by ensuring that the development sites relate to the proposed type of development and there is no “wasted” land
• Provide certainty for the developer and community

The built environment has a significant impact on the quality of life experienced by residents of the area. The form and layout of this environment has a large impact upon population growth, demand for access to services and the social infrastructure, proximity to employment and feelings of safety in the community.

6.2 Spatial structure plan area
The map below outlines the target area of the SSP along with the key features, typography and developments potentially impacting or providing opportunities for Wiri.
6.3 Assessing the area
When the urban design team and their colleagues did an initial review of the urban features of Wiri they identified the following key features:

- The area has significant cultural significance and landscape potential with the Puhinui Stream and its associated green space threading its way through the area. The Puhinui was noted to have a similar flow to the Avon in Christchurch.
- This is the closest residential area to Manukau City Centre, with its facilities, services and developments, including a new academic campus, a rail station, shops and other services. However, the area is poorly connected to this (and will potentially be less connected when the new motorway is completed in 2010) so the city centre appears remote and inaccessible.
- Wiri has one entry / exit causing access issues making it an isolated community.
- The area includes a flood plain next to the Puhinui and some houses are sited on low lying areas.
- Generally the area is characterised by single family homes, meeting the aspirations of the local community.
- Many neighbourhoods look inward and not over green space like the Puhinui which reduces safety, physical activity and utilisation.
- Many plots lack street frontage or clear access and this creates security and safety issues.
- Motorways are a significant barrier to movement across the area, as is the Great South Road, and there is pollution and noise from these.

The initial themes for discussion around Wiri's spatial structure included:

- There is significant potential to improve connectivity within the area and to surrounding suburbs by extending the existing large grid road layout both north/south and east/west.
- The opportunity can also be taken to reconfigure the layout of sections to significantly increase the number of lots with a street frontage and to provide better surveillance and use of the streets and Puhinui open space.
- Ways to have a better connection with Manukau City Centre, particularly after the motorway development is complete later in 2010.
- Less exposure to the flood prone areas of Wiri.
- Promote activity and active transport to help improve health of the community.
- Increase surveillance to improve safety.
- Increase road connections to improve access to amenities and decrease the need to use busy roads.
- Improve aesthetics e.g. greater use and profile of the Puhinui stream.

6.4 Built form and spatial structure plan
The initial built form and spatial structure plan (see below) tried to respond to the issues and opportunities by building upon the existing large grid network of roads and forming additional linkages to the west and to the north/south.

New residential streets were proposed. These were in the form of a uniform block pattern that is on the whole aligned to the existing large grid network, although at Rata Vine the new roads are aligned to the Great South Road.

The new uniform residential streets are able to efficiently accommodate new house types; mainly semi-detached, so increasing the capacity of the area without the need for rear- lots. At the same time the area is able to achieve appropriate space between units and providing usable private rear gardens for leisure/recreation.
Open spaces are fronted by housing developments, so ensuring that they are well overlooked and usable whilst also improving the quality of the outlook from the housing.

Overall the proposals improve the connectivity of the area, providing a large number of alternatives to access each area of housing, and providing good linkages both within the area and to surrounding areas. This includes the introduction of new linkages to Manukau City Centre, to the north.

These proposals are summarised pictorially below.
6.5 Possibilities for phase two of the spatial structure plan

The learning’s from this HIA would lead Urban Planning to:

1. Maintain the suggested reorientation of buildings to face on to the open spaces, to ensure that they are well over looked, safe environments
2. Suggest appropriate landscape treatments for the areas that reflect the cultural diversity of the area
3. Consider in more detail the use, location and size of any suggested commercial and community facilities
4. Consider the detailed location and orientation of housing to ensure that warm, healthy living environments are created with minimal reliance on costly heating/cooling options
5. Ensure that the area accommodates a mix of housing types that can meet the needs of the current and future community
6. Ensure that all pedestrian areas and paths are well overlooked
7. Create a safer place for all to live, work and play through improved lighting, well maintained safe paths and shortcuts

Additional ideas and strategies for the Urban Plan will be developed over time and incorporate some of the results from this HIA.

7 • DEVELOPMENT OF THIS HIA

E hara taku toa, I te toa taki tahi, Engari taku toa, He toa taki tini
Our strength is not ours alone, But that of our community.

This whakatauki illustrates the importance of community cohesion, connectedness and a sense of identity to have strength and conviction as a community to make positive health outcomes. Central to this HIA is enabling the voices of affected parties to inform this process, looking at both history and future.

7.1 Screening

In March 2010 it was decided a HIA was required and was appropriate for the SSP of Wiri because:

- Wiri had been marked as an area for growth in the 1999 Regional Growth Strategy
- There were important health implications of the long-term development plan for Wiri
- Wiri has a significant number of vulnerable populations with poor health
- There was and still is a lot of government and organisational / agency support to complete this HIA including but not limited to the Wiri Improvement Program
- The health and wellbeing of people and communities is shaped by the influences of individual health behaviours, health service access and delivery, and by the environments within which we live, work and play. All of these elements will be affected by this SSP
Wirī has significant support within Manukau City Council and from all the agencies that are part of Tomorrows Manukau and the Wirī Improvement Project. It was thought that through completing this HIA, Manukau City Council could help to continue the momentum of positive health change in the area. There has been measured change in this community over time; for example, crime is decreasing, Wirī is now seen as a more favourable place to live, the Manukau Super Clinic is complete and the Health Park is under development and the area is seen to be generally moving in the right direction.

It was thought that the community should have a voice in producing a vision for the area, and to have the opportunity to voice any concerns about the potential health impacts of the spatial structure plan. Additionally it was felt that there was an opportunity to promote positive health outcomes and impacts through completing this HIA. This HIA also provides an avenue for embedding HIA into future local government practice, demonstrates the importance of consultation with communities and considering health in future projects, planning and policy.

Key populations of focus for this HIA were identified and are listed below. Their participation was actively sought through the HIA. They included:
- Children
- Elderly
- Maori
- Pacific
- Local business owners
- Schools
- Churches

The appraisal sought to detail and explore the potential health impacts for specific population groups in the four key areas identified. These included a focus on older people, people with disabilities, children, young people, Maori, Pacific people, and those living in areas of highest deprivation. Any key issues that these groups encounter can highlight fundamental issues which may have an impact on the community as a whole. These are discussed in detail within this report.

7.2 Scoping

The scoping meeting was held on the 26 May 2010, with the Wirī Improvement Project Team comprised of Housing NZ, CMDHB (including Healthy Homes), MSD (FACS, Work and Income) Police, and Manukau City Council.

As a result of this scoping meeting, a scoping report was completed by ‘Manukau the Healthy City’ and distributed to The Wirī Improvement Project Team and participants in May 2010. This document included the key focus areas for the HIA appraisal phase and is summarised below.

The scoping workshop provided detail on the determinants of health and the HIA process. The determinants of health that were relevant to the Wirī community were discussed and themes were identified through a facilitated process.

Open discussion identified four key focus areas to be appraised; housing, access, economic potential and safety. In addition to the four focus areas, a further pervasive theme of community engagement and partnerships was identified to underpin all focus areas of this HIA and that this was vital to the success of an urban plan that works for the community. These themes are detailed in the diagram below:

7.3 Appraisal

The appraisal workshops were held on the 15th and 16th June 2010; the Whanau Ora workshop on the 15th and the open appraisal workshop on the 16th.

For this appraisal process, brief literature reviews were completed, with a particular focus on the four focus areas identified in the scoping phase, together with a population and health profile of Wirī. These appraisal workshops were the beginning of the production of the vision for Wirī. The information encompassed in the rest of this report details the thoughts and results of this appraisal process.

The workshops were well attended with stakeholders present from local businesses, schools, local government organisations and churches who had an interest in developing healthy cities and the local community. These stakeholders and community groups were asked to identify their vision and aspirations for Wirī, the potential impacts of the SSP, the steps needed to reduce or eliminate adverse impacts of the SSP, and the ways in which we can maximise positive impacts of the SSP.

The Whanau Ora consultation was held at the Auckland Regional Botanical Gardens. This workshop was used to highlight the Maori perspective on urban design and how to improve Wirī to ensure the increase in health and wellbeing in the community and reduce inequalities. This is detailed within Chapter Four of this report.
In addition to the two appraisal workshops a children's consultation workshop was completed at Wiri Central School, as well as a youth consultation at Manurewa High School in the month of June.

A youth Dream Youth Centre Extreme (DYCE) group consultation was completed in July 2010 which had a high representation of young Pacific people. In July 2010 a consultation with older people was undertaken, seeking the views of older residents of the Wiri area. This has been summarised into Chapter Six of this report.

Details of full appraisal workshop participants lists are available in the appendix section of this document.

In addition to these consultations we received feedback via email from local businesses, early childhood centres and the disability unit within the council. Ongoing consultation will continue until the SSP is in its final stages to ensure the voices of the residents are heard and their aspirations are included in the final SSP for Wiri.

For more information about the HIA process please see the Scoping document in Appendix Three.

8 • WIRI HISTORY

8.1 Wiri Maori history and whakapapa

Wiri, takes its name from the old chief Ihaka (Wirihana) Takaanini. Although mostly known as Takanini, and named after the Takanini whanau, the name is more correctly Takaanini, after the old chief – after whom the settlement was named.

The name means literally taka 'heap' and nini to 'glow'.

The old chief Ihaka Takanini, a great friend of the early colonists, lived near Papakura. In 1863, he was taken prisoner by the government under the impression he was an enemy. It was shown that this was a mistake, never the less he was kept a prisoner of war on one of the small islands in the Hauraki Gulf until he died in 1864.

His tribe was the Akitai.

8.2 Wiri community history

Wiri is known for its strong community and advocacy for change, particularly over the last 10 years.

Wiri and in particular Rata Vine, a sub-community of Wiri, haven't always been so cohesive or empowered. There have been elements of anti-social behaviour, gangs, criminal activity and poor housing. Rata Vine in particular had rising problems with youth drug and alcohol related crime and disorder. This was until the community bound together with the support from local agencies and NGOs to move in a more positive direction.

Community development has continued over time with the local Catholic Nuns (The Sisters of Mercy), two key residents, the Manukau City Council, Housing New Zealand, New Zealand Police, Counties Manukau District Health Board and the local school. The community renewal project which started in 2006, encompassed a general clean up of the Wiri parks, housing, and began to address the gang, youth alcohol and drug issues in Rata Vine. This community still largely works with these agencies and sectors to advocate and make change.

Housing New Zealand started the Community renewal project and removed 25 houses from Rata Vine. At the time Rata Vine was the bottom preference for those families looking to move into Housing New Zealand homes in Auckland. The removal of those houses, coincidently removed some key negative influences in the community and Wiri as a whole was starting to improve in both image and community cohesiveness and spirit.

There are some truly amazing stories that come from this community showing it moving from strength to strength over time and illustrating the power of partnerships and importance of advocating for positive change in a community.

This has included:
• A community drive to remove alcohol sales from the local shop to help decrease youth and general community unruly behaviour
• The development of a community house which is used for many community activities
• Employment of a youth worker to enable the youth of the community to advance their skills and provide them with someone to approach for help, assistance and advice
• A local bread run by the Sisters of Mercy
• Community gardens
• Social services at the school
• A safety patrol for Rata Vine which is in progress

Wiri as a whole has had significant support within Council: it is hoped that through completing this spatial structural HIA that the momentum of positive health change can continue. We can see measured change in this community already, crime is decreasing, Wiri is now seen as a more favourable place to live, the Manukau SuperClinic has been completed and the Health Park is being developed and the area is moving in the right direction.

Wiri has been marked as an area of increased intensification and growth in the district plan as well as by Housing New Zealand in the 1999 Regional Growth Strategy. All of these factors contribute to the importance of this project to ensure continued improvements.

9 • HEALTH AND POPULATION PROFILE

9.1 Population data

The Wiri Census Area Unit (CAU) is located in the northern part of the Manurewa Ward of the Manukau region. Wiri is defined as the area between Manukau City Centre to the north and Browns Road to the south. The area is physically split by Great South Road, with Woodlands to the north and west, and Rata Vine to the south and east. To a certain extent this split is reflected in the behaviour and community spirit of the two areas.

According to the 2006 census, the Wiri area has a population of 4,280, which is expected to double over the next 20 years to 8,460 by 2031. It is a culturally diverse area with a high proportion of Maori and Pacific residents.
9.1.1 Ethnicity
Half of the residents in the Wiri area identify as Pacific (52%), with a quarter identifying with Maori (26%). Only a fifth of Wiri residents identify as European (22%), and a tenth as Asian (12%).

9.1.2 Age distribution
The Wiri area has a very youthful population, with a third of the population under the age of 15 (34%) compared with 20% nationally, and half under 25 years of age (51%) compared with 35% nationally.

9.1.3 Deprivation
Wiri is a highly deprived area with almost 80% of the population living in one of the most deprived neighbourhoods in New Zealand in 2006 (Sourced by: Papa, D & Jackson, G, 2010). Wiri residents have higher levels of unemployment, and lower average incomes than the majority of New Zealanders. For example, the median income per person in Wiri is $13,600 compared to the average for New Zealand of $18,500 (Freeman, G. 2008). Less than a quarter of Wiri residents own their own homes (24%), compared to the national average of 62%. There are also a large proportion of residents in homes managed by Housing New Zealand; some estimated 600 homes in the Wiri area.
9.1.4 Education
A large proportion of Wiri residents over the age of 15 have no formal qualifications (42%), and less than half have a qualification greater than level 1 Certificate (43%).

9.1.5 Employment
For those aged over 15, a large proportion were not in the labour force (40%), and 7% of Wiri residents were unemployed. However, over a third are employed full time (35%), and a tenth employed part time (9%).

9.1.6 Income
Reflecting other demographic data, income levels in Wiri are low, with more than 40% of individuals aged 15 years and over earning $20,000 or less.

9.2 Wiri health data
Wiri residents tended to have poorer levels of health and, on average, required more frequent hospital care. Wiri residents have significantly higher acute hospitalisation rates than their counterparts in CMDHB as a whole (40-50% more) (Papa, D & Jackson G, 2010).

Residents in the Wiri area have higher rates of Potentially Avoidable Hospitalisations (PAH) than the rest of the Manurewa Ward and the larger Counties Manukau district. Among Wiri residents aged over 75, the rate of PAH was almost twice that of the CMDHB (406/1000 residents vs 211/1000 residents). Wiri also had higher rates of Housing-related potentially avoidable hospitalisations (hrPAH).

9.1.7 Travel to work
Of those residents who worked, two-thirds of them travelled to work in a private car, truck or van (66%), with most driving their own cars rather than car pooling (56% vs 10%). Less than a tenth of residents travelled to work by bus (3%), train (2%), or through active means (walked - 5%, bicycle - 0.3%).
9.2.1 Injury
Injury is one of the leading causes of mortality and morbidity for children in New Zealand. The chart below includes injury from the following: pedestrian, motorbike, three-wheeler, vehicle occupant, other land transport, burns/fire/electricity.

Hospital admissions for injury by ethnicity and age group, 2002-2008

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<td>5</td>
<td>10</td>
<td>7</td>
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<td>5-12</td>
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<td>10</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>466</td>
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</tbody>
</table>

*rates rounded to 0 decimal place

9.2.2 Smoking
Over a quarter of Wiri residents are regular smokers (28%) compare to the national average of approximately 20%, while almost half have never smoked regularly (46%).

9.2.3 Housing
Crowding is associated with the rising house prices in Auckland in general and the inability to afford appropriate housing for all. Manukau City as a whole has the highest recorded rates of overcrowding in 2001 with 10.1% of all people in private dwellings living in crowded homes, Auckland City average was only 5.3% and 1.4% in North Shore (Auckland Regional Public Health Service, 2005).

9.2.4 Noise and Air Pollution
Being close to Great South Road and the Motorway, Wiri residents are also exposed to high levels of ambient noise and air pollution. Two studies in Amsterdam found that people that live near busy streets (10,000 vehicles a day) were exposed to two or three times more particulate matter compared to people who live in streets where traffic levels were lower. (Barnes, G, 2007).

The general landscape of Wiri is dominated by roads, built with the car in mind, with clusters of housing widespread, and amenities and services such as medical centres, primary health services, shops, leisure facilities and pools only accessible via car, and with relatively little public transport services available.

This car dominated culture causes pollution and decreases likelihood of physical activity, leading to obesity. This can lead to complications such as diabetes and heart disease as well as the increase possibility of morbidity or mortality due to the safety factors associated with having large volumes of vehicles and traffic in the area.

10 • LITERATURE REVIEW

Four key areas were identified as those needing more detailed appraisal for this HIA. This section highlights the relevant literature for each of those four areas.

10.1 Housing
Internationally housing is widely recognised as a key determinant of health. Sub-standard housing has been shown to have a detrimental effect on health (Thomson, H., Petticrew, M., & Morrison, D, 2001).

10.1.1 Insulation and housing conditions
New Zealand houses measured against international standards are generally cold and damp. One third of New Zealand houses are substandard and are below the WHO’s recommended minimum 18˚C temperature. The mean temperature of houses in Auckland is 16.5˚C, with un-insulated houses generally being 1.5˚C colder (Stanley, H., & Howden Chapman, P, 2004).

Damp cold and mouldy houses are the most common health hazards and people living in those houses are more likely to develop respiratory disease, depression, and mental health problems (Howden Chapman, P. et al. 2004).

A large part of Wiri is situated in a low lying area and flood plain, consequently a large proportion of the houses are damp and cold and this is exacerbated by lack of or no insulation.

People on low incomes are most likely to live in substandard housing, yet they are the least likely to have the power or resources to invoke change (Breysse, P., et al. 2004; Krieger, J., & Higgins, D.L. (2002).

10.1.2 Overcrowding
House overcrowding is strongly associated with the spread of infectious disease including Meningococcal disease, Tuberculosis and Acute Rheumatic Fever (Baker, M., et al. 2000). An Auckland study found that crowding was identified as the most important risk factor for Meningococcal disease and reducing crowding was the key preventative measure (Baker, M., et al 2000).

A large part of Wiri is situated in a low lying area and flood plain, consequently a large proportion of the houses are damp and cold and this is exacerbated by lack of or no insulation.

10.1.3 Aesthetics
Aesthetics of place and housing is important: we do not just exist within a physical environment; we interact with it and derive important meaning from it (Butterworth, I., 2000). Buildings, landscape and urban design symbolise people’s culture, history and relationships, therefore aesthetics of place is important. This includes appropriate aesthetically pleasing housing and properties (Butterworth, I., 2000).
Housing quality can be improved by ensuring detailed design, orientation and using energy saving materials. It is important to provide a range of housing tenure for different incomes and ensure that housing is close to public amenities as well as ensure there are sufficient houses to accommodate growth. Tenants are best served when they are actively involved in the solutions to their housing-related health problems, therefore community consultation leading to action is an important ingredient in gaining positive outcomes (Saegert, S., Klitzman, S., Freudenberg, N., Cooperman - Mroczek, J., & Nassar, S. 2003).

10.2 Access
There are basic essential services and infrastructure that all communities require, these include; access to appropriate health services, shops, schools, libraries, leisure centres, cultural activities and public transport. Stakeholders felt there was a lack of access to culturally appropriate education and or additional training facilities, as well as a lack of access to appropriate health services, including by Maori for Maori health services in Wiri.

Wiri has been identified as an area of growth. Increasing youth numbers and the general population rises could strain the services they do have and highlights the need for additional, more appropriate, services for the future.

10.2.1 Obesity and physical activity
Obesity and type 2 diabetes are crucial issues for New Zealand; they adversely affect the health of many and the social and economic welfare of all New Zealanders. These “epidemics” have the potential to overwhelm the health system if left unchecked (House of Representatives, 2007).

There is growing research, information and concern regarding the lack of physical activity and the associated health outcomes. The obesity rate among adults in New Zealand in 2007 was 26.5 per cent which is one of the highest in the world behind the United States at 34.3 per cent and Mexico at 30 per cent higher (OECD Health Data Report 2009). Ministry of Health data indicates Maori are 1.5 times more likely to be obese than the average New Zealander, while obesity rates among Pacific people are 2.5 times higher.

In 1991 the direct costs of obesity to New Zealand’s health care system were conservatively estimated at $135 million per year, or 2.5 percent of health expenditure for that year. On this basis the figure for 2000/01 would have been at least $247.1 million, and it will be higher today (House of Representatives, 2007).

While it is understood that this obesity epidemic is multifaceted, it is becoming increasingly clear that the physical environment in which we live is a contributor. Access to public space for exercise, safe streets to walk to public transport and surrounding areas, access to leisure facilities and access to transport to reach appropriate healthy food sources are all key to improving health and wellbeing and decreasing obesity and the associated diseases such as diabetes and heart disease (Bowers, S., et al. 2009). Physical inactivity and sedentary habits have become more common. There is generally far less need to expend physical energy than there was 30 years ago. Urbanisation is associated with less walking and cycling and more use of motor vehicles. Social and economic changes have reduced the opportunities for physically active work and leisure (Bowers, S., et al. 2009).

Urban planning plays a large role in encouraging or discouraging habitual physical activity, especially cycling or walking to and from work or school and during leisure time (House of Representatives, 2007). To make a significant sustainable change to physical activity levels, a range of issues need to be addressed, including residential design, urban design and built environment.

To encourage increased physical activity, footpaths and bicycle lanes need to be wide and well maintained. The general landscape should be attractive, well lit and well networked to other paths and to well maintained regular public transport routes. A greater variety of recreational activities and access to other leisure facilities will increase physical activity which in turn will help reduce obesity and the associated diseases such as diabetes and heart disease.

An Auckland-based study explored travel behaviour and urban design variables, including the associations between distance and adults travelling to work. This study found that people who lived in connected streets were almost 7 times more likely to walk or cycle, showing the importance of good paths, increased safety and well lit streets (Badland, H., et al. 2004).

10.2.2 Transportation, land use and connectivity
Extensive international research shows that driving is a major source of air pollution, the more miles, idling and travelling by vehicles increases the air pollution levels affecting environmental health, consequently affecting human health (Fumkin et al; 2004). Breathing in higher levels of exhaust emissions is known to induce detrimental health outcomes, increased respiratory issues, reduced lung capacity and increase incidence of severe asthma. These diseases are naturally higher in the Maori and Pacific populations and therefore this environment increases the severity and rates of these diseases and illness’s significantly (Fumkin et al; 2004).

Neighbourhoods with good connectivity have more intersections and more route choices therefore a person can choose the most direct route to their destination. Good access enables a population to not only make use of services that are within the area but branch out to use services, amenities and visit other communities further afield. The long term effects of communities designed badly with little connection to the outside world includes social isolation, depression and other social / mental illness (Knox, 2003).

Better public transport and increased connectivity with the rest of Auckland may lead to an increase in employment opportunities which in turn may also lead to economic growth in the area.
Service rationalisation often results in closure of many public facilities and this can then have negative impacts on a community, especially on women, the elderly, children and people with disabilities (Barnes, G., 2007). Central city and out of town retail centres have proliferated, such as Manukau city centre development, and can be detrimental to local facilities. Planning can ensure that there are a range of accessible transport modes and ensure that facilities are within safe walkable / cycle distance or on regular public transport routes. Consequently this can decrease vehicle use and the pollution caused by excessive vehicle use.

There are several studies indicating that mixed land use will increase the use of public transport. Placing homes, shops, services and businesses close together makes travelling by foot, bicycle or public transport easier and makes it possible for people to combine trips such as shopping, retail and employment (Barnes, G. 2007).

10.2.3 Community interaction
It is important to provide diversity in building design and land use so that it encourages interaction between different parts of the community and the surrounding areas.

10.3 Economy and growth
Wiri has low income levels when compared to other Auckland communities. 1,461 people earn under $50,000 per annum and the median income is only $13,600 compared to the average New Zealand wage of $18,500 (Freeman, G., 2008). Wiri community members have high dependency on welfare sources as well as low educational levels when compared to other parts of the country. Therefore investing in education, training and bringing business into the community may help to improve employment and income for people in the area (Freeman, G., 2008).

A strong robust economy enables a community to provide more choice and opportunities to its population groups (Wilson, D., 2009). The Wiri community would benefit from more businesses with money, community centres with resources for youth and long term investors to help improve Wiri as a whole. There needs to be more opportunity to increase skill level and employment.

More opportunity can lead to more jobs, income, additional training and education and a general increase in status can help address income disparities, health and other social issues. Lack of a strong economy within a community produces less opportunity, less access to services and amenities, less money, which then leads to bad housing and living conditions and less choice regarding life, health and wellbeing. (Wilson, D., 2009).

Quality of services is an integral part of the quality and attractiveness of a place; therefore it is important to encourage people from different backgrounds and socio-economic status to move into an area, this can in turn create more jobs and prosperity within a community.

Improving the sense of place and aesthetics of an area can increase business interest and development. The more work and business in the area, the more people and variety of people and as a result there is more money and better health in an area.

Employment opportunities created in inaccessible locations or lack of variety of jobs in a community due to isolation can have negative effects (Wilson, D., 2009). Urban planning is linked to strategies for economic regeneration, by facilitating opportunities for business; this encourages diversity in employment and ensures local job opportunities are retained.

Increasing and maintaining regular appropriate public transport will increase connectivity with the rest of Auckland and may lead to increased employment opportunities which in turn may also lead to the ability to increase economy and growth within the area.

10.4 Safety
10.4.1 Road and driveway access safety
Road safety is an issue with Great South Road being a main road within this community, streets are busy and driveway accidents are high. Access management and driveway access is an area of concern in Wiri causing high numbers of fatalities in driveways.

From January 1998 to October 2001, 75 children in the Auckland region were killed or admitted to Starship Hospital after being struck by a motor vehicle in a home driveway. 56% of these occurred within South Auckland. This figure is also likely to be underestimated as this is for hospital admission only and does not include A&E admittance. There is also difficulty ascertaining the specific category for driveway run over’s as often it is recorded as just an injury, road injury, fall or other.

Pedestrians are particularly vulnerable along these community roads with multiple access points onto the street and long driveways with bad visibility. A strategy for prevention of driveway run over’s included that driveways are to be fenced off from play areas and gates should be in good working order. Traffic calming techniques which give priority to pedestrians and cyclists are vital for a safer community and environment. Prevention of injury is a major health priority in NZ and therefore urban planning which considers children’s safety at the home is imperative (Coggan, C., Lee, M., & Fill, J, 2005).

10.4.2 Crime
Fear due to crime has decreased over time but still may have negative effects on health. A sense of safety in a community is known to reduce stress and plays a huge role in determining people’s willingness to undertake physical activity, in particular children, women and older people (Upper Hutt City Council, 2009).
There are ways of designing urban space to ensure a sense of safety. These include having good lighting, places to sit outside, protecting access routes and destinations, and use of territorial symbols such as alarm signs and neighbourhood watch signs within the community (Upper Hutt City Council, 2009).

Urban planning can create alienating environments where people are uncomfortable being out on the streets, for example within Wiri there are areas that have poor lighting, heavy traffic on Great South Road, poor urban design in regards to long driveways or small secluded streets that don’t give the perception that the area is safe to walk around in. The area is often intimidating making people use cars more and streets become deserted increasing the perception of danger (Butterworth, I., 2000).

Good urban design will ensure residential and commercial areas have a natural process of surveillance over public space that reduces crime and fear or perception of dangerous activity (Upper Hutt City Council 2009).

Features of urban environments such as access routes, pedestrian underpasses and bridges, narrow pathways between buildings, and single exit points from public spaces are potentially unsafe and provide opportunity for entrapment and crime. Accesses need to be well connected with good visibility and light and have multiple choices of exit (Upper Hutt City Council 2009). These are all issues that will be relevant to the Spatial Structure Plan.

Consideration could be given to using public art in appropriate places to help build the sense of place, improve aesthetics and discourage graffiti. Rata Vine has some art work in their community already which is positive and has increased their sense of place.

Using graffiti resistant paint and organising regular maintenance and cleaning rosters of the community areas maintains a high standard of cleanliness and the perception of care and pride within the community. Ensuring there is seating in appropriate places to encourage people to wait and sit in public spaces provides a form of informal surveillance.

Designing public space so it is adaptable to many uses and different groups of people is a further important element of safe urban design. This can be supported by involving the community in selecting art and creating public space to increase community ownership and pride of the area.

Providing surveillance or eyes on the street, where people can look over space makes it more likely that community members would see and report crime or intervene, thus being a deterrent.

Make the community easy to navigate with signs and logical safe placement and setting of public facilities such as phone boxes, railway stations and public toilets in well lit open spaces, this will help avoid possible crime and safety issues (Upper Hutt City Council 2009).

10.5 Community identity / engagement / connectedness and partnerships
A theme that underpins all focus areas of this HIA is community identity and partnership and Wiri has slowly gained a better sense of identity and community overtime.

The health promotion literature identifies nine domains to empower and develop communities. These have informed this HIA. They are:

- Improving participation of community members and organisations
- Helping to develop local leadership
- Building empowering organisational structures
- Increasing problem assessment capacities - enhancing the ability of the community to ask why
- Increasing critical awareness
- Improving resource mobilisation
- Strengthening links to other organisations and people
- Creating a equitable relationship with outside agents
- Increasing control over programme management (Laverack G. 2007).

These are all important to any community project and will help to enable the voice of this community to help inform the SSP process. Speaking about past and future can help form identity and sense of community as well as bring people together to be committed and proud of their community.