HIGHLIGHTS:

- In 2016/17, about 148,000 New Zealanders (2.6% of children and 3.2% of adults) had missed out on a GP visit due to a lack of transport in the previous 12 months. There has been no significant change in the prevalence of this unmet need since 2011/12.

- Women were almost twice as likely as men (4.2% vs 2.2%) to have had an unmet GP need due to a lack of transport in the past 12 months.

- Lack of transport was a significant barrier to accessing GP services for Māori and Pacific peoples, with 5–8% of people in these ethnic groups affected.

- People living in the most deprived areas had much higher rates of unmet GP need due to a lack of transport (4.8% of children, 7.2% of adults) than people in the least deprived areas (about 1% of children and adults).

- In 2014–17, the District Health Boards (DHBs) with the highest rates of unmet GP need due to a lack of transport were Northland (6.9%) and Hawke’s Bay (5.2%) DHBs for children, and Hawke’s Bay (5.6%), Northland (5.1%) and Counties Manukau (4.3%) DHBs for adults.

How a lack of transport can affect health

Access to transport is important for accessing health services and other services and facilities in society (Kjellstrom and Hill, 2002). Not having access to transport when it is needed (either via a motor vehicle, cycling, walking or public transport) can be an important barrier to accessing health services, and can lead to an ‘unmet need’ for healthcare (that is, missing out on healthcare when it is needed), and a potential worsening of health.

Data for this indicator

The data for this indicator come from the New Zealand Health Survey. Unmet need for GP services due to a lack of transport is defined as having had a medical problem but not visiting a GP due to a lack of transport, in the past 12 months (Ministry of Health, 2014). The results are presented for children (aged 0–14 years) and adults (aged 15+ years).

About 148,000 New Zealanders missed out on a GP visit due to no transport in 2016/17

In 2016/17 about 3% of New Zealanders had a medical problem but did not visit a GP due to a lack of transport, in the past 12 months (children: 2.6%, 2.0–3.3; adults: 3.2%, 95% confidence interval 2.9–3.6). This is about 24,000 children and 124,000 adults.

There has been no significant change in the percentage of people with unmet need for a GP due to a lack of transport between 2011/12 and 2016/17, for either children or adults (Figure 1), even when adjusting for age differences (Ministry of Health, 2016).
Some variation by age group in unmet need for a GP due to a lack of transport

The highest rates of unmet need for a GP due to a lack of transport were in children aged 0–4 years (3.5%) and adults aged 25–34 years (4.2%) (Figure 2).

Women were more likely to have an unmet need for a GP due to a lack of transport than men

In 2016/17, rates of unmet GP need due to a lack of transport were significantly higher among women (4.2%, 3.7–4.8) than men (2.2%, 1.8–2.6). This difference remained statistically significant after adjusting for age, with women being twice as likely as men to have the unmet need (adjusted rate ratio 2.0, 1.6–2.4).

Māori and Pacific peoples have higher rates of unmet need for a GP due to a lack of transport

By ethnic group, rates of unmet GP need due to a lack of transport were high among Pacific adults (7.8%) and Pacific children (4.5%), as well as Māori adults (7.5%) and Māori children (4.8%) (Table 1).

Māori children and adults were 2.6–2.8 times as likely as non-Māori children and adults to have experienced an unmet need for a GP due to a lack of transport, after adjusting for age and sex differences (Table 2). Pacific children were twice as likely as non-Pacific children to have experienced this unmet need, while Pacific adults were 2.6 times as likely as non-Pacific adults.

Table 1: Unmet need for GP services due to a lack of transport, by ethnic group, 2016/17 (unadjusted prevalence and estimated number)

<table>
<thead>
<tr>
<th>Ethnic group (total response)</th>
<th>Unmet need for GP services due to a lack of transport (%)</th>
<th>Estimated number of people affected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
<td>Adults</td>
</tr>
<tr>
<td>Total</td>
<td>2.6% (2.0–3.3)</td>
<td>3.2% (2.9–3.6)</td>
</tr>
<tr>
<td>Māori</td>
<td>4.8% (3.2–6.8)</td>
<td>7.5% (6.2–9.1)</td>
</tr>
<tr>
<td>Pacific</td>
<td>4.5% (2.5–7.5)</td>
<td>7.8% (5.5–10.8)</td>
</tr>
<tr>
<td>Asian</td>
<td>0.6% (0.2–1.4)</td>
<td>2.9% (1.9–4.4)</td>
</tr>
<tr>
<td>European/Other</td>
<td>1.8% (1.3–2.4)</td>
<td>2.3% (2.0–2.7)</td>
</tr>
</tbody>
</table>

Table 2: Unmet need for GP services due to a lack of transport, by ethnic group, 2016/17 (adjusted rate ratio)

<table>
<thead>
<tr>
<th>Ethnic group (total response)</th>
<th>Adjusted rate ratio (adjusting for sex and age)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
</tr>
<tr>
<td>Māori vs non-Māori</td>
<td>2.6* (1.6–4.2)</td>
</tr>
<tr>
<td>Pacific vs non-Pacific</td>
<td>2.0* (1.1–3.7)</td>
</tr>
<tr>
<td>Asian vs non-Asian</td>
<td>0.2* (0.1–0.5)</td>
</tr>
</tbody>
</table>

Notes for Tables 1 and 2: 95% confidence intervals are given in brackets. Estimated numbers will add to more than the total, due to total response ethnicity (where everyone is included in every ethnic group they report). An asterisk (*) shows a statistically significant adjusted rate ratio.

Source: Ministry of Health (2017)
Lack of transport is an important barrier to healthcare for people living in highly deprived areas

In 2016/17, children and adults living in more socioeconomically deprived areas were much more likely than other people to have had an unmet need for GP services due to a lack of transport in the past 12 months.

In particular, 4.8% of children and 7.2% of adults living in the most deprived areas (NZDep2013 quintile 5) had an unmet GP need due to a lack of transport in the past 12 months (Figure 3).

Figure 3: Unmet need for GP services due to a lack of transport in the last 12 months, by socioeconomic deprivation (NZDep2013 quintiles), 2016/17 (unadjusted prevalence)

For adults, the differences in unmet GP need due to a lack of transport by socioeconomic deprivation (NZDep) remained significant after adjusting for sex, age and ethnic differences between areas.

In 2016/17, adults living in the most deprived areas were 5.9 times as likely as those in the least deprived areas to have experienced this unmet need in the past year, after adjusting for age, sex and ethnic differences (Table 3).

For children, the difference in unmet GP need due to a lack of transport by socioeconomic deprivation was not statistically significant.

<table>
<thead>
<tr>
<th>NZDep2013 quintile</th>
<th>Children</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (least deprived)</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>2</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>3</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>4</td>
<td>2.8</td>
<td>3.5</td>
</tr>
<tr>
<td>5 (most deprived)</td>
<td>4.8</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Table 3: Unmet need for GP services due to a lack of transport, by NZDep2013, 2016/17 (adjusted rate ratio)

For adults, the differences in unmet GP need due to a lack of transport by socioeconomic deprivation (NZDep) remained significant after adjusting for sex, age and ethnic differences between areas.

In 2016/17, adults living in the most deprived areas were 5.9 times as likely as those in the least deprived areas to have experienced this unmet need in the past year, after adjusting for age, sex and ethnic differences (Table 3).

For children, the difference in unmet GP need due to a lack of transport by socioeconomic deprivation was not statistically significant.

<table>
<thead>
<tr>
<th>Socioeconomic deprivation (NZDep2013)</th>
<th>Adjusted rate ratio (adjusting for sex, age and ethnic group)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
</tr>
<tr>
<td>Most deprived areas vs least deprived areas</td>
<td>4.1 (0.7–24.0)</td>
</tr>
</tbody>
</table>

Notes: 95% confidence intervals are given in brackets. An asterisk (*) indicates a statistically significant result. The rate ratio for socioeconomic deprivation refers to the relative index of inequality (Hayes and Berry, 2002), which compares the estimated value for people at the minimum and maximum points on the deprivation scale (Ministry of Health, 2012). These statistics were calculated and published by the Ministry of Health.

Source: Ministry of Health (2017)
Hawke’s Bay and Northland DHBs had higher levels of unmet need in 2014–17

In 2014–17, rates of unmet GP need due to a lack of transport varied by District Health Board (DHB) (Figure 4).

For children, the following DHBs had significantly higher rates of unmet need:
- Northland (6.9%)
- Hawke’s Bay (5.2%).

For adults, rates of unmet need were significantly higher than the national rate in the following DHBs:
- Hawke’s Bay (5.6%)
- Northland (5.1%)
- Counties Manukau (4.3%).

DATA SOURCES
Data come from the 2016/17 New Zealand Health Survey data tables (Ministry of Health, 2017), and regional results from the 2014–17 New Zealand Health Survey data tables (Ministry of Health, 2018). For more information about this indicator, see the metadata sheet.

RELATED INDICATORS
Related environmental health indicators for transport, available from the EHINZ website (www.ehinz.ac.nz), include:
- Number of motor vehicles
- Main mode of transport to work on Census day
- Active transport to and from school
- Household travel time by mode of transport
- Transport injury hospitalisations and deaths
- About transport and health (information factsheet).

REFERENCES