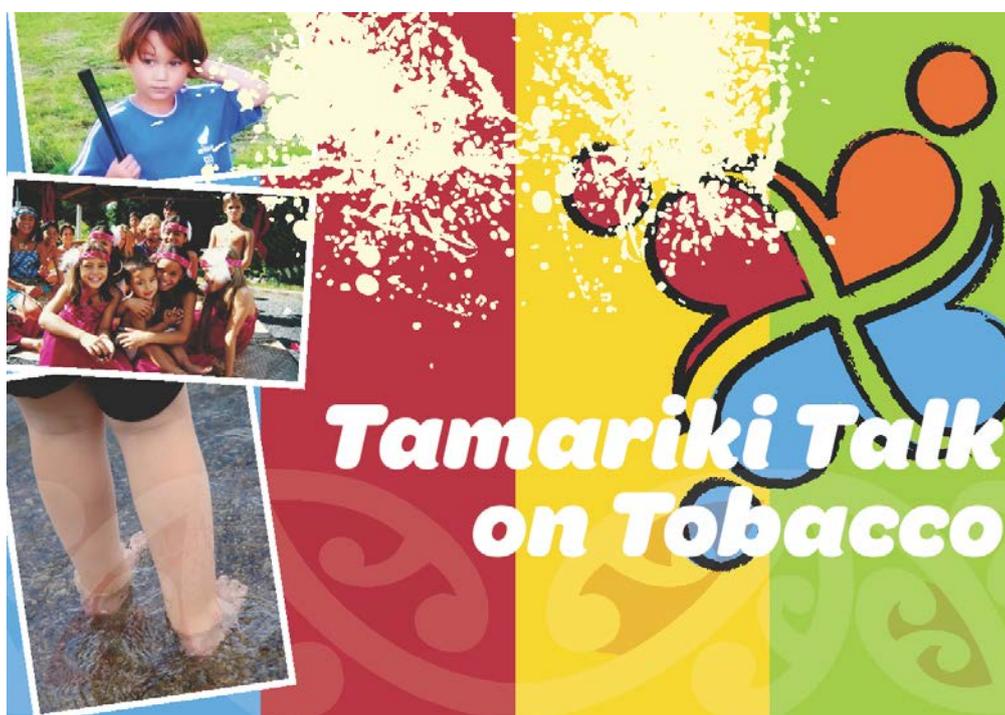


# Smoke, Smoking and Cessation: The views of children with respiratory illness



Dr Marewa Glover, Dr Anette Kira, Julienne Faletau

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# Smoke, smoking and cessation: The views of children with respiratory illness

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## ABSTRACT

**Aim:** to explore the attitudes of Māori and Pacific children with respiratory illness towards second hand smoke (SHS), smoking and parental smoking cessation.

**Method:** forty-one children (27 Māori and 13 Pacific) (aged 6-11) in New Zealand were interviewed (7 individually, 34 in focus groups). They were asked about: their attitudes towards smoking; how SHS affects them; their fears and concerns about smoking for themselves and their parents; how to reduce their exposure to smoking; and their experiences asking parents to quit smoking. The interviews were transcribed, entered into NVivo and analysed using a deductive approach following the interview schedule.

**Results:** The children said SHS made them feel “bad”, “unhappy”, “angry”, “uncomfortable”, “annoyed” and “really sick”, making them want to get away from the smoke. They were aware of the negative consequences for themselves and others: “I think that it’s bad to smoke”, “it is not right to smoke and I don’t like it”, “no one should smoke!”, “it [smoking] is dangerous” and that “you could die from it”. They knew about the harmful effects of smoking: “you can get cancer like my nanna and then you’ll die”. Many children had fears for people around them who smoked.

The children reported on rules restricting smoking around children: “You’re not allowed smoke in the car where babies are”. Most children reported that adults complied with those rules: “they just go to the back and don’t smoke around us”, and “they never smoke around me”. However, a number of children reported that people still smoked around them.

The children had experienced people around them quitting. The most common reason perceived for people quitting was concern for children. Other reasons included money, TV ads and workplace policies. There was an awareness of how difficult it is to quit smoking.

Whilst some children thought family members supported others to quit, others said there was no one to help. A lot of the children thought they could ask parents to quit with a few suggesting they could “act like I’m sick” thus playing on the concern of parents. Other suggestions to help included: hiding people’s tobacco, use of smokefree pamphlets, signs or stickers, and searching for a cessation plan on the internet.

**Implications:** Even young children from low socioeconomic minority groups are aware of the dangers of smoking and SHS and hold negative views about smoking. Health promotion messages for parents could have more weight if they convey the concerns voiced by children.

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## INTRODUCTION

There is strong and consistent evidence that exposure to second-hand smoke (SHS) causes chronic respiratory symptoms and induces asthma in children (Gergen, 1998; Jaakkola & Jaakkola, 2002). There is a link between household smoking and childhood asthma (Goodwin & Cowles, 2008). Further, exposure to SHS has also been associated with increased severity of asthma in children (Mannino, Homa, & Redd, 2002). The prevalence of asthma is higher for Māori children than Pacific Island or European children (20%, 15% and 15% respectively) (Ministry of Health, 2008). A larger proportion of Māori and Pacific Island, compared to European, children have symptoms of severe chronic asthma (Pattemore, Ellison-Loschmann, Asher, Barry, et al., 2004). Between 2003 and 2005 the leading cause of admission to a public hospital among 1-4 years old was respiratory disease (Robson & Harris, 2007). In children aged 0-14 years hospitalisation rates for bronchiectasis were twice as high in Māori children than non-Māori children (29.1 per 100,000 in Māori compared to 14.2 per 100,000 in non-Māori) (Robson & Harris, 2007). While there are multiple determinants of acute respiratory illness amongst children (such as low social class, poor housing, and poor nutrition), SHS exposure is arguably the most readily amenable risk factor to modification. It is likely that exposure to SHS contributes to ethnic health disparities for children (Craig, Jackson, & Han, 2007). Unfortunately the inequality between European and Māori or Pacific Island children is increasing: between 1993 and 2003, the prevalence of current wheezing increased for Māori and Pacific Island (0.12% and 0.49% respectively) and decreased for European children (-0.25%) (Ellison-Loschmann, Pattemore, Asher, Clayton, et al., 2009).

Eighteen per cent of New Zealand (NZ) adults smoke cigarettes regularly. However, the prevalence is substantially higher among Māori and Pacific Island people (41% and 26% respectively) (Ministry of Health, 2012), and has shown few signs of reducing between 2006 and 2012 (Ministry of Health, 2012). Further, 62% of Māori and 45% of Pacific Island 14-15 year olds report that one or both of their parents smoke, which is substantially higher than for NZ European 14-15 year olds (31%) (Paynter, 2010).

Although it has been found that children's asthma negatively impacts on parents' quality of life (Halterman, Yoos, Conn, Callahan, et al., 2004), few studies have investigated how parental smoking impacts on children's quality of life or children's attitudes to smoke, smoking and quitting. One study of children with pulmonary disorders found that children thought smokers should try to quit and were in favour of smoking bans (Feinson, Glutting, Chang, & Chidekel, 2004). Another study, conducting focus groups with asthmatic Puerto Rican children, found that children identified a need for reduction in SHS exposure (Martin, Beebe, Lopez, & Faux, 2010). Parents influence the development of their children's attitudes and values towards health behaviours, such as smoking (Tilson, McBride, & Brouwer, 2005). However, the influence is bi-directional: children and adolescents also influence parents' health behaviours (Mosavel, 2009; Mosavel & Thomas, 2009; Rimal & Flora, 1998; Tilson, McBride, & Brouwer, 2005). For example, daughters give their mothers health advice (Mosavel, 2009; Mosavel & Thomas, 2009), parents 'give in' to children and buy unhealthy food (Turner, Kelly, & McKenna, 2006), and children have been shown to influence parents in a cessation intervention (Tilson, McBride, & Brouwer, 2005). Thus to increase efficacy health promotion campaigns should consider both parents and children as a source of influence on changing the health behaviour (Rimal & Flora, 1998).

In New Zealand, it has been found that the most important reason for quitting for Māori and Pacific Island smokers is: for their children, in order to be a positive, smokefree, role-model and for children's health (Glover, Nosa, Watson, Paynter, et al., 2010). Further, it has been found that NZ parents want to quit smoking to reduce the risk of their children becoming smokers (Glover, Paynter, Wong, Scragg, et al., 2006). The Government recognises that children are particularly vulnerable to SHS exposure, and that children are often not able to avoid the exposure (New Zealand Government, 2011).

Given the devastating effects of smoking on respiratory health, and the high smoking prevalence among Māori and Pacific Island people, reducing smoking among Māori and Pacific Island people, in particular parents of asthmatic children, is urgently needed. The need to understand more about children's exposure to SHS was identified as a research need in the Government's response to the Māori Affairs Select Committee's Report on tobacco (Māori Affairs Select Committee, 2010). However, although there has been some previous research into children's perceptions relating to parents' health behaviour, there has been no research in NZ investigating children's perceptions of parents' smoking. The aim of this study was to explore the attitudes of Māori and Pacific children with experience of respiratory illness towards smoke, smoking and smoking cessation.

## **METHOD**

### **Design**

Given the dearth of literature on children's attitude to smoking, especially in NZ and among Māori and Pacific children, a qualitative exploratory approach using focus group (12) and individual interviews (7) was used.

### **Participants**

Participants were 41 children recruited from the North Island of New Zealand. Inclusion criteria were a respiratory condition such as asthma, Māori or Pacific Island, and aged 6-10 years. Participants were recruited in May and September 2012 from two low socioeconomic primary schools in South Auckland, August 2012 from Hapai Te Hauora Tapui Ltd Auckland, September 2012 from West Fono Health Trust in West Auckland, September 2012 from Kokiri Marae Tukotahi Māori Asthma in Wellington, October 2012 from The Asthma Society Whangarei and November 2012 via researchers' networks. Contacts from these organisations helped identify and select children.

### **Data collection**

The interview schedule contained questions and prompts on: 1) Children's attitudes towards smoking; 2) How second hand smoking affects them and their asthma or respiratory disease; 3) Their fears and concerns about smoking for themselves and their parents; 4) Ideas they have about how to reduce their exposure to smoking; and 5) Experience asking parents to quit smoking.

### **Procedure**

Focus groups and interviews were conducted at schools, health care provider sites or at marae (Māori meeting place). The interviewer then told the children they will be watching four short video clips. Videos of actors smoking cigarette at a park, a bus stop, a family BBQ

and in a vehicle had been produced and were shown to the children (Table 1). The video clips aimed to portray a non-Māori and non-Pacific person smoking amongst Pacific and Māori people in areas readily recognised by children. Some focus groups were shown all four video clips at once and some one by one interspersed with discussion. The videos were shown on an iPad. An iPad was used because of its high attractiveness to children. It is a form of koha (gift) to give them some experience with new technology in return for their participation. Use of computer, in this case iPad, also buffers potential discomfort and power imbalance between participants and researchers (Punch, 2002). Participants were given an opportunity to play a game on the iPad, after which the researcher started the focus group or interview. The facilitator used reflective listening and prompts to encourage discussion. At the end of the interview, participants received a \$10 PaperPlus voucher for taking part in the study.

**Table 1: Video vignette context**

<b>Video</b>	
<b>Park</b>	Asian adult female sitting on a park bench smoking a cigarette whilst children are playing with a ball in front of her. The ball rolls towards her, she puts the cigarette behind her back, picks the ball up returning it to the child. She then resumes smoking.
<b>BBQ</b>	European adult female, standing with three Pacific women talking. She starts to light up her cigarette near the children playing close by. There are also four male youths (17-19yr) standing around the BBQ drinking coke and PowerAde whilst looking at the food on the BBQ.
<b>Vehicle</b>	Pacific adult male waiting in the car with his Indian friend (adult male). Pacific adult male calls out to his younger brother (Pacific boy 11yr) to come so they can take him to school. Indian adult male starts lighting up his cigarette just before the young boy gets in and then they drive off.
<b>Bus Stop</b>	Asian adult male waiting at the bus stop with a young Pacific boy (11yr) and his older brother (19yr). Whilst waiting, the Asian adult male starts smoking, blowing smoke both directions (left and right) whilst looking for the right bus.

## **Data analysis**

Interviews were recorded using a digital recorder then transcribed and entered into NVivo. Data was predominantly analysed using an deductive approach (Thomas, 2006), however, where unexpected and relevant themes occurred those were analysed inductively. Two of the researchers (MG, AK) independently coded the data. For all discrepancies, the statements by participants did not add any new theme or additional information to the theme, and therefore were excluded from analysis.

When quotes from specific participants were used, demographics, age, ethnicity and gender, for example 8yr, Māori, F (8 year old, Māori female), was stated, but no identifying information was included.

## Ethics

Ethics approval was obtained from the University of Auckland Human Participant Ethics Committee in March 2012. A participant information sheet and consent form was sent to parents either directly or via these providers. Parental consent was obtained for all participating children. Verbal informed consent was given by each child.

## RESULT

Seven were interviewed individually and 34 in focus groups. There were 20 girls and 21 boys ranging in age from 6-11 years (Table 2).

**Table 2: demographics of participants**

	N	%
Ethnicity		
Māori	27	66%
Pacific Island	13	32%
European	1	2%
M	20	49%
F	21	51%
Age		
6	5	12%
7	6	15%
8	12	29%
9	8	20%
10	9	22%
11	1	2%
Respiratory illness		
Asthmatic	32	78%
Other Respiratory*	8	20%
No Respiratory condition	1	2%

\*including frequent coughs/cold

The children made many and very negative comments about smoking and SHS exposure. There were only two comments that could possibly be construed as favourable towards smoking, "I just like the smell [of smoking]" (8yr Samoan M) and "it [SHS exposure] makes you wanna smoke" (7yr Tongan F). However, both of those children also made many negative comments towards smoking and SHS exposure.

## SHS exposure

Many participants experienced negative feelings associated with SHS exposure, such as feeling "bad" (7yr Tongan F, 7yr Tongan F, 7yr Māori F, 8yr Māori F, 9yr Tongan F, 10yr Māori M, 11yr Tongan M,), "unhappy" (9yr Tongan M), "angry" (6yr Samoan/ Tongan F, 11yr Tongan M), "uncomfortable" (8yr Samoan M), "annoyed" (9yr European M) and "really sick" (6yr Māori F). The children felt like "...I want to get away from them [smokers]" (8yr Māori

F), "I usually just go away" (8yr Māori F). One participant said that "it's not fun to smoke around" (8yr Māori/Cook Island M: 8yr Māori/Cook Island male). The children were well aware of the negative consequences of smoking and many comments referred to very serious consequences:

*"The lady who was smoking was over here and the other girl was over there the wind was blowing that way and it could've got in her... her face and then she could've got sick... and could've died"* (8yr Māori male).

*"The boy might not breathe... like stop breathing... cause the smokes are coming into his nose?"* (8yr Tongan M).

*"cause it's bad for kids... It can give them like, have a heart attack and die"* (8yr Māori F).

*"Their lungs start to go all red and black"* (8yr Tongan F).

*"It gets clogged up in your lungs and even if you don't smoke you can still get, you can get cancer if you go near the person smoking, because you breathe it in"* (9 yr European M).

*"You can get cancer"* (8yr Tongan F).

There were many comments illustrating the negative impact SHS exposure has on the participants' respiratory conditions. In particular, many children mentioned that being around smoking made them cough and made it difficult for them to breathe:

*"It [SHS] made my asthma, cough more, it made my asthma bad and then I coughed hard and there was nearly blood coming out of my mouth"* (7yr Māori F).

*"If I am near them I start coughing when they start smoking"* (10yr Māori M).

*"...cause the smell goes into your nose and it goes down into your thing [pointing to her throat and chest] and you can't breathe"* (7yr Tongan F).

*"It makes you can't breathe... and then you have to go to the doctors"* (7yr Tongan F).

*"...tight chest or coughing ... it just goes away when my mum stops smoking"* (8yr Māori F).

*"I can't breathe and I have headaches"* (10yr Māori F).

### **Rules relating to exposing children to SHS**

Many participants spoke as if there were 'rules' about not smoking around children and no smoking indoors. However, despite perceived rules existing, a number of children reported that people still smoked around them.

#### **Existence of rules**

*"No. They just go to the back and don't smoke around us"* (10yr Māori M).

*"My family they never smoke around me"* (10yr Māori M).

*"Not near the kids"* (11yr Tongan M).

*“They go outside and smoke” (8yr Māori F).*

*“No smoking inside, just that. And no drinking” (8yr Samoan M)*

### **Lack of rules**

*“He [dad] smokes inside” (9yr Tongan M).*

*“In my room dad smokes and my nanna smokes and my aunty and my uncle smokes” (9yr Māori M).*

Children also perceived that there were rules to restrict SHS exposure to others, such as “you’re not allowed smoke in the car where babies are” (11yr Tongan M), “you can’t smoke at the bus stop” (8yr Māori/Cook Island M) and “no smoking in front of kids” (7yr Tongan F). The children expressed surprise that the male actor smoked in front of children and seemed to not care.

### **Smoking in cars**

*“You can’t smoke in the car” (8yr Māori/Cook Island M).*

*“He was smoking and there was a child in the car” (10yr Māori F).*

*“You’re not allowed smoke in the car where babies are in there” (11yr Tongan M).*

*“He was smoking in the car when there was a kid in there and he didn’t even care” (8yr Māori F).*

### **Smoking in front of Children**

*“No smoking in front of kids” (7yr Tongan F).*

*“He was smoking around a kid and he didn’t care, he just kept on smoking” (8yr Māori F).*

*“That man is not allowed to smoke in front of him [the child]” (7yr Tongan F).*

### **Adult smoking**

The children had negative feelings towards adults smoking. They thought “I think that it’s bad to smoke” (7yr Tongan F), and that “no one should smoke!” (10yr Māori F).

*“Like it is not right to smoke and I don’t like it” (8yr Māori F).*

The children were aware that “it [smoking] is dangerous” (6yr Samoan/ Tongan F), “it can damage your body” (8yr Māori F) and that people are “going to die [from smoking]” (10yr Māori F). There was knowledge of the harmful effects of smoking, that “you can get cancer... and then you’ll die” (8yr Māori F), that “it gives you brain damage and rotten teeth” (9yr Tongan M), and “it gives you wrinkles” (7yr Māori F). One child stated that “when you’re smoking and you’re pregnant it damages the baby” (11yr Tongan M).

*“If you smoke too much you’ll have to go to the hospital and get your body fixed” (7yr Māori F).*

Many children had fears for people around them who smoked. They were worried that “they [parents] might die because of the smoke” (11yr Tongan M).

*“They might get cancer and die and we’ll feel sorry” (9yr Tongan F)... “and we won’t have parents to look after us” (8yr Tongan F).*

### **Adult cessation**

Many children had experience with people around them quitting, including their mother (10yr Māori F, 7yr Māori F, 9yr Māori M, 8yr Tongan M), father (9yr Māori M), grandparents (8yr Māori F), and aunties (8yr Māori/Cook Island M, 10yr Māori F, 8yr Samoan M).

*“Yup my mum has tried to give up smoking and she has. So it’s really changed my life. So it’s changed everyone’s and we’re trying get [other child] back” (6yr Māori F).*

*“My mum smoked all the time, [but] no more now, she stopped” (9yr Māori M).*

The children felt “happy” (11yr Tongan M, 8yr Tongan F, 9yr European M, 8yr Māori F), “good” (9yr Tongan M) and “well” (10yr Māori F) when someone managed to quit smoking. Someone quitting made them “feel really good inside” (8yr Māori F).

*“This time they [mum and dad] have stopped [smoking]. So I gave them a hi five. I felt very happy and very proud of them” (6yr Māori F).*

The most common reason the children perceived for people quitting smoking was concern for children (9yr European M, 7yr Māori F, 8yr Tongan F), “because [people] doesn’t want them [children] to get sick” (7yr Māori F). Other reasons included money, TV ads and workplace policies.

*“She just tells my mum to stop smoking because I got asthma and she doesn’t want me to go hospital lots because my mum works at a school and she gets lots of money from the school” (7yr Māori F).*

*“They heard the news, they were watching it, it said if you smoke then you won’t breathe and then they gave up” (7yr Tongan F).*

*“... My mum that works here and she doesn’t smokes and my nan she works here and you’re not allowed to smoke” (8yr Māori M).*

A number of children had not experienced anyone quitting smoking. Some children appeared to be aware of how difficult it is to quit smoking.

*“She [mother] won’t stop, she’ll keep going ... they [people at marae] all like smoking” (9yr Māori F).*

*“I don’t know, but she said she will stop smoking but she won’t” (9yr Māori M).*

*“When you have a smoke, it might make you want to have more and you can’t really get out” (10yr Māori F).*

*“Smoking is hard to stop” (10yr Māori M).*

*“Daddy stopped smoking for a little while but he started again and mum did too. But she can’t help it” (10yr Māori F).*

### **Support for adult cessation**

Some of the children mentioned family, such as a mother (9yr Māori M, 10yr Māori M), dad (7yr Māori F) or aunties (8yr Niuean F), supporting with quitting, and three children mentioned influence from medical people.

*“He smokes a lot and he never stop smoking. But when the nurse said to him to stop smoking, he does from now” (6yr Samoan/ Tongan F).*

*“He took these tablets to stop him smoking... tablets from the doctors” (11yr Tongan M).*

*“The doctor gave these patches so she puts them on” (8yr Māori F).*

Some children felt that there was no one available to help people quit smoking (8yr Samoan M, 8yr Tongan M).

### ***Ideas to increase adult smoking cessation***

A lot of the children suggested “talking to them [smokers]” (11yr Tongan M) so that they would quit smoking. This included the children telling the smoker about the fear they held for the smoker or playing on the concerns of SHS harms that the smoker has relating to the children. Children also suggested hiding the tobacco and showing smokefree pamphlets, or, putting up signs or stickers.

### **Talking to smokers**

*“I told my nan to stop smoking so she could have more money and she brought two poodles with her money after, 2 black ones” (10yr Māori F).*

*“Well my mum said she’ll stop smoking and I said. Cause she wants. Every day she won’t stop smoking [RA: okay....so what can you do so they can stop smoking?] look on Google [RA: and what will you look on Google for?] a plan to help stop smoking” (9yr Māori M).*

*“Just tell them to stop” (8yr Māori/Cook Island M).*

*“Sometimes I would tell mum to chuck her smokes in the bin or I’d tell her to stop” (10yr Māori F).*

*“I say, ‘stop smoking granny’” (9yr Māori F).*

### **Tell the smoker of the children’s fear for the smoker**

*“I say, mum you need to stop smoking, before you end up in hospital” (10yr Māori F).*

*“I’ll say stop smoking. Quit it if you don’t want to die” (10yr Māori M).*

*“Talk to them and say please can you stop smoking ... just to stop smoking because they might die” (9yr Tongan M).*

### **Playing on smokers concerns for the children**

*“I asked my mum to stop smoking, mum can you stop smoking, you give me asthma” (9yr Māori M).*

*“Act like I’m sick” (10yr Māori F).*

*“Act like I’m dead or something” (10yr Māori M).*

### **Hiding tobacco**

*“Hide all the smokes away” (8yr Māori F).*

*“When he’s sleeping go chuck his smokes in the rubbish” (11yr Tongan M).*

*“I tried hiding the smokes” (10yr Māori F).*

*“Last time when I saw my aunties pick her cigarettes, I was like should I pick them up and put them in the bin, and I was like oh nah she might give me a growling” (10yr Māori M).*

#### **Other suggestions**

*“...showed my mum this pamphlet of the lungs, clean lungs when you start smoking and then it had this yuck gung stuff” (10yr Māori M).*

*“Put a sign of no smoking in our house” (8yr Tongan M).*

*“You can put up a sticker that says no smoking” (7yr Tongan F).*

### **Other**

#### ***Policy***

A number of the children made comments relating to policy. There were suggestions to write a letter to John Key (10yr Māori F) asking him why he won't ban smoking (10yr Māori M).

*“You stop smoking that'll be good, for your family. You won't stop smoking, tough luck” (9yr Māori M).*

#### ***Smoking, drinking, injury and violence***

Even though there was no alcohol shown in any of the video clips, there were a number of associations of smoking with drinking of alcohol, getting drunk, getting injured and fighting:

*“Looks like they're gonna drink and they might fight” (8yr Tongan M).*

*“When my family is having a party at my uncles house, they will stay outside and drink and smoke while the kids are asleep but if they're playing poker they will come inside and they won't drink and smoke” (8yr Samoan M).*

*“When people get drunk they smoke” (8yr Tongan F).*

*“When you smoke and when you drink, you get drunk and you get a smoke...there's a mail box and you might hit your head on it” (7yr Tongan F).*

## **DISCUSSION**

This is the first NZ research that has investigated children's perceptions of smoking. The tobacco control messages of the harms associated with smoking has clearly gotten through to these children. They were negative towards smoking and well aware of the dangers of smoking, exposure to SHS, and the difficulty with quitting smoking. The children had very negative feelings, such as fear and anger, towards smoking and SHS exposure and they expressed pride and happiness when someone quit smoking.

International studies have also found that children thought smokers should try to quit, that there should be smoking bans (Feinson, Glutting, Chang, et al., 2004) and there is a need for reduction in SHS exposure (Martin, Beebe, Lopez, et al., 2010). However, this paper adds to previous research by identifying that the children were aware of 'wrong' smoking

behaviour, i.e. smoking in cars or public places where children are present. Some children specifically stated that smoking should be banned. This suggests that this group of children are supportive of policy measures restricting smoking in certain areas. Some of the children knew that SHS made their asthma worse sometimes resulting in their needing medical attention, even hospitalisation. Another NZ research study with older pre-adolescents (aged 10-13) found that parents could be underestimating their children's exposure to SHS (Glover, Hadwen, Chelimo, Scragg, et al., 2012). There was a consistent mismatch between parental reports of smokefree home and car status and their children's reports of exposure to SHS in the home or in a vehicle by about 30% (Glover et al., 2012).

The results will be helpful for tobacco control programmes. The children's views could help inform the composition of smokefree messages for Māori and Pacific Island parents of children especially those with respiratory illness. Messages that the community and mass media give to parents will have more weight and salience if they are consistent with the concerns voiced by their children.

Quitting for children is a prevalent and powerful motivation for parents. To reach smokefree 2025 we need nearly every smoker to attempt to quit once a year from now on. Some of the children thought they could ask their parents to quit smoking, but this could put some children at risk of an abusive response from the adult. The children were also tempted to throw out parents' smokes but again this could increase risk of abuse. Further, as smoking prevalence drops, smoking may become more concentrated among co-morbid groups, that is, groups with high prevalence of mental illness, drug and alcohol abuse, violence in the home or criminality and children in these homes are among the most vulnerable. Health providers and tobacco control providers need to be careful of encouraging 'pester power' and need to consider how to enable children to act on their fears for smokers in their life without putting themselves at risk. It could be safer for TV campaigns to be the voice of the children, for example, saying: "Your child is too afraid to tell you this themselves..." More hard hitting campaigns with kids crying at the loss of a parent have been contributed to the successful decline of alcohol and speed related road crashes (New Zealand Transport Agency, 2009).

Children could be safely resourced to support their parents to quit. For example, children could be provided with, smokefree home or car stickers, pamphlets or websites on how to support their family members to stop smoking. In recognition of children's desire to reward parental and whānau quitting, they could be guided in how to reward quitting e.g. how to make a card or reward coupon, or savings jar. Smokefree messages could also be delivered by children to their parents in the form of performance, such as theatre and other Māori and Pacific cultural performing arts. Further work is warranted to identify, develop and test messages and vehicles for messages that could be used by Māori and Pacific children.

### **Limitation and strengths**

A limitation of this study is the non-generalizability due to a small specific sample. However, this is also a strength since this sub-group – Māori and Pacific Island children with respiratory disease – are a particularly vulnerable population that experience disproportionately higher prevalence of immediate harm from SHS. Some of the findings relating to the negative feelings towards and knowledge of harmful effects of smoking may be specific to this population, due to their condition.

## CONCLUSION

Children with respiratory illnesses are doubly motivated to reduce smoking prevalence in NZ: 1) they are directly and immediately harmed by SHS, and 2) they are afraid that their father, mother, nannies, uncles and aunts who smoke will die from smoking. Despite their relatively powerless position in the family to do anything about this, they still want to do something to help the people in their family who smoke to stop. Rather than leaving it to children, health workers and tobacco control could do more to voice children's concerns and provide cessation support to the adults in their lives.

In addition to telling parents about the causal effect of their smoking on their child's illness clinicians could talk to parents about children's fears that the smoking parents will die and deep wish for the parents to stop smoking. Further, clinicians could say that NZ research suggests children are exposed to SHS quite a bit more than parents realise. Even if the home and car are reportedly smokefree it is worth asking parents to check that others respect that and are not smoking around the child, for instance when giving them a lift in a different vehicle.

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