# A HEALTH CASE **STUDY USING THE CHILDREN'S** WELLBEING MODEL

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#### Disclaimer

Access to the data presented was managed by Statistics New Zealand under strict micro-data access protocols and in accordance with the security and confidentiality provisions of the Statistics Act 1975. These findings are not Official Statistics. The opinions, findings, recommendations, and conclusions expressed are those of the authors, not Statistics NZ.



### **CHILDREN'S WELLBEING MODEL**

Encompasses all children

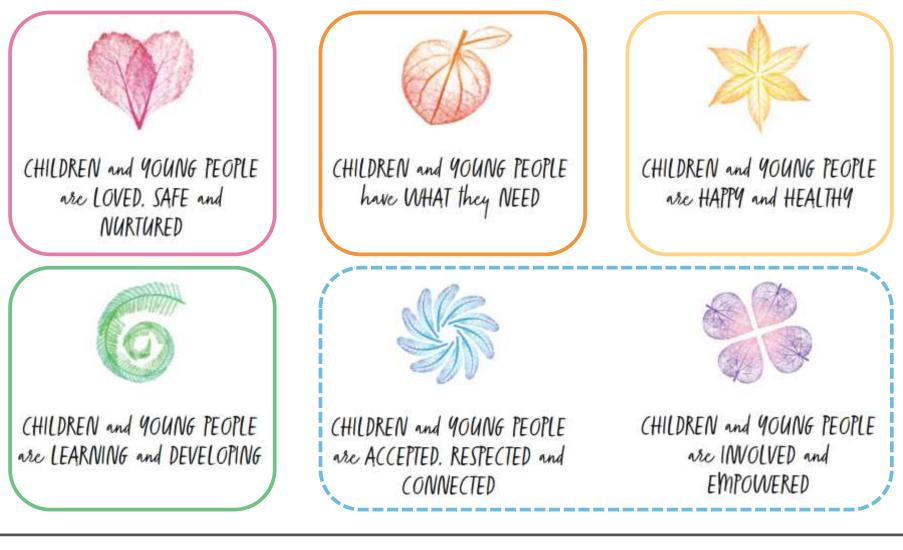
Focus on wellbeing

Recognition that wellbeing is complex

Consider the **present** as well as the future



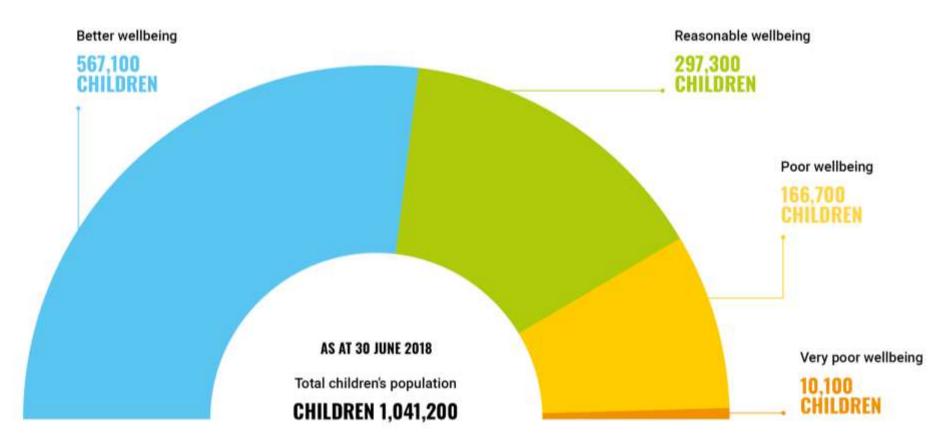
## **CHILD AND YOUTH WELLBEING OUTCOMES**





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### **CHILD WELLBEING**



Note: Segmentation of the total children's population in New Zealand has been created using quantitative information contained within the Stats NZ Integrated Data Infrastructure. As a result, we have developed a view of apparent wellbeing based on available data, rather than a true picture of wellbeing itself. In particular, the segmentation has predominantly been informed by service usage, which acts as a proxy for need and wellbeing. Due to the nature of the data, we are also unable to account for unmet demand of services, as well as unmeasured strengths.





### HEALTH CASE STUDY – OVERVIEW





STEP 2



STEP 3

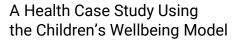
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STEP 1

Determine the **major** adolescent risk factors that are associated with high morbidity/high cost adult health conditions Assess child factors that are associated with the adolescent risk factors Determine the **future disease burden (DALYs)** associated with each of the six risk groups

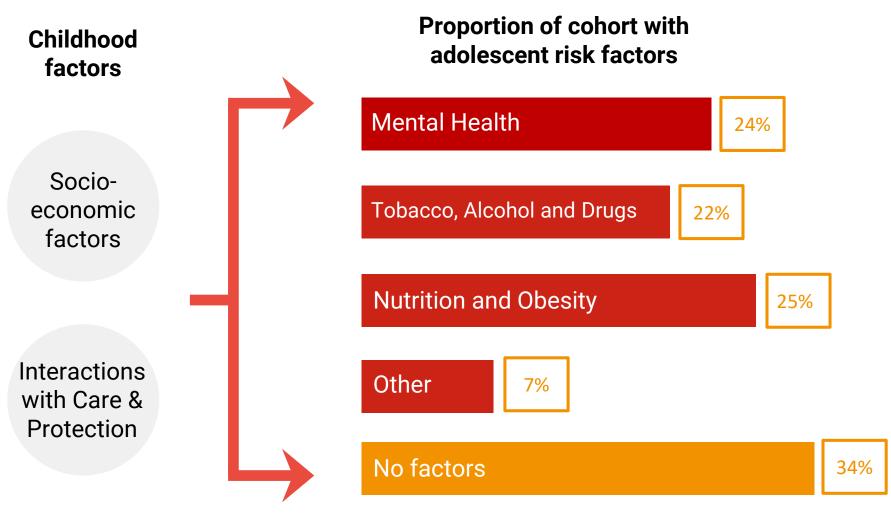
#### STEP 4

Cost the most representative conditions for each risk factor





## **CHILDHOOD & ADOLESCENT RISK FACTORS**





## **KEY FINDINGS – AN EXAMPLE**

#### **Childhood factors**

- 14 years old
- Lives in an area with high deprivation (NZDep Index 9/10). Low income for most of her childhood.
  - Care & Protection reports
  - Currently in out-of-home placement
  - Multiple childhood hospitalisations
  - Very poor wellbeing

#### Adolescent risk factors

Compared to other 14 year olds:

- 2.5x more likely to have mental health needs
- 3x more likely to smoke
- 7x more likely to have substance usage needs
- 2.5x more likely to have had recurrent infections
- 2x more likely to have nutrition/obesity issues

High risk of reduced Disability Adjusted Life Years over adult life

Lifetime health

burden

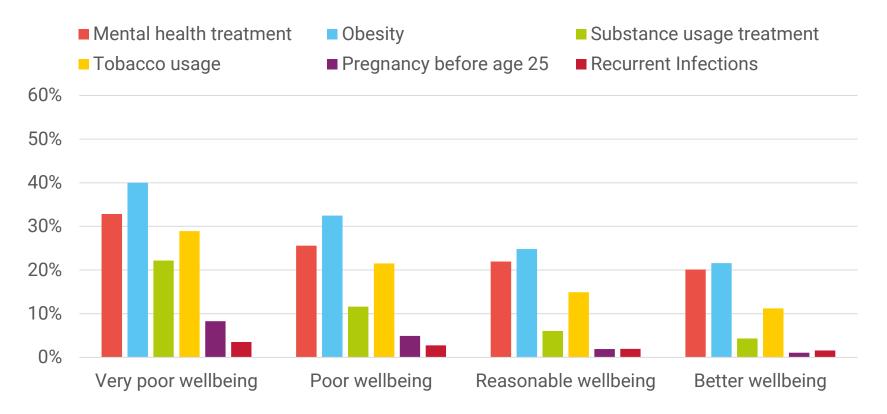
For the NZ child population with 1 or more adolescent risk factors, we estimated cohort averages of:

- 9 DALYs lost per child attributable to childhood and adolescent risk factors
- \$143k excess cost per child attributable to childhood and adolescent risk factors



#### KEY FINDINGS – ADULT HEALTH OUTCOMES ASSOCIATED WITH CHILDHOOD AND ADOLESCENT RISK FACTORS

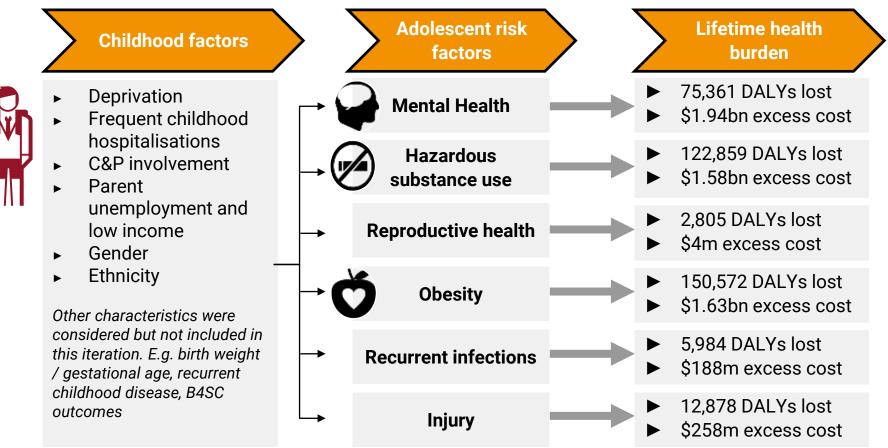
Projected lifetime incidence rates of adult health outcomes for 14 - 16-year-olds at 30 June 2018 – segmented by level of wellbeing.







### KEY FINDINGS – LIFETIME HEALTH BURDEN ASSOCIATED WITH CHILDHOOD AND ADOLESCENT RISK FACTORS



NB: 370,459 attributable DALYs lost and \$5.6bn excess cost for the cohort in total



#### KEY FINDINGS – LIFETIME HEALTH BURDEN ASSOCIATED WITH CHILDHOOD AND ADOLESCENT RISK FACTORS

