# Divergent paths & the long reach of historical extremes in imprisonment

Len Cook Honorary Fellow, Wellington School of Medicine 21 July 2021

### **Trends**

#### Evidence and statistics

- Why a statistician's eye on evidence and the administration of justice
- Evidence, trustworthiness and public legitimacy
- Tests of proportionality
- Autonomy and co-ordination the limited options of the justice sector

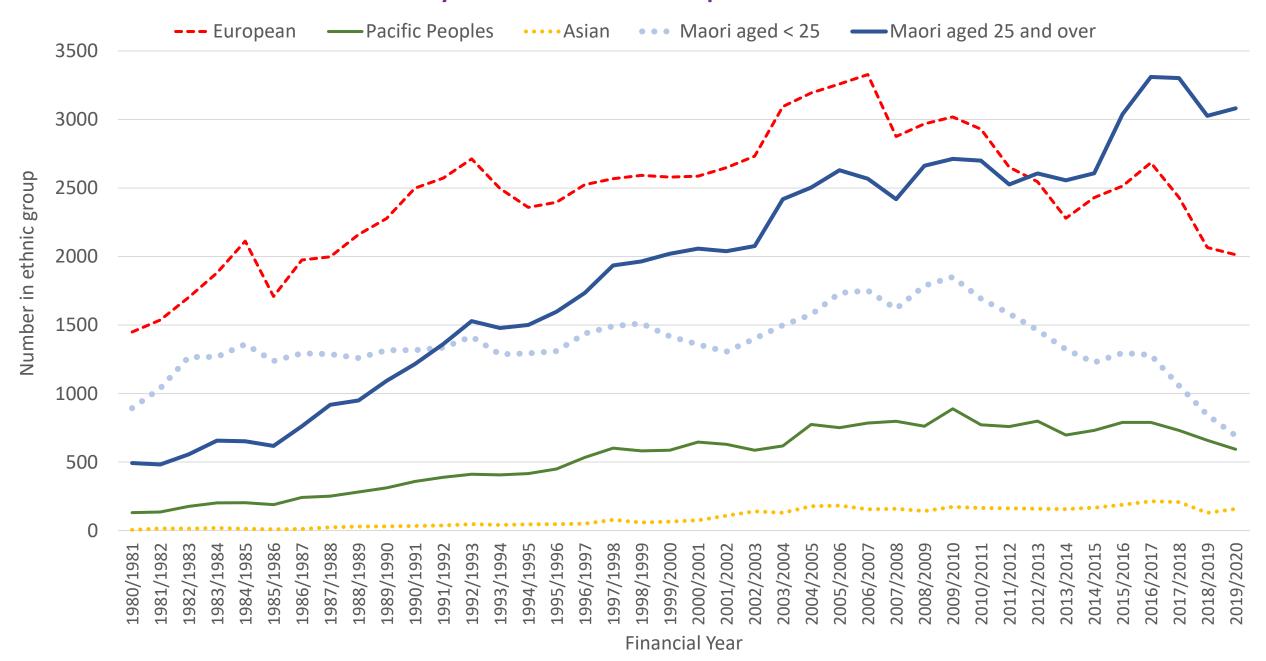
# Current trends

- a) This analysis is primarily of Māori as a distinct population, and not in relationship to the European population of New Zealand. The effects of the distinctive demographic dynamism of the Māori population are able to be distinguished.
- b) Individuals are not analysed through state institutions, but through the share of those in each birth cohort who are connected to actions by the state at particular ages. The analytical methods draw on methods of analysing populations by cohort, birth year and the time of critical events. Use is made of simple standardisation methods common in health.
- c) Proportionality is determined by measures of excess that are more informative than the common practice of calculating disparity ratios.
- d) The long reference period reflects the long reach of the justice system and covers the period of extremes in rates of imprisonment and state custody, and of the highest disproportionality of these rates.

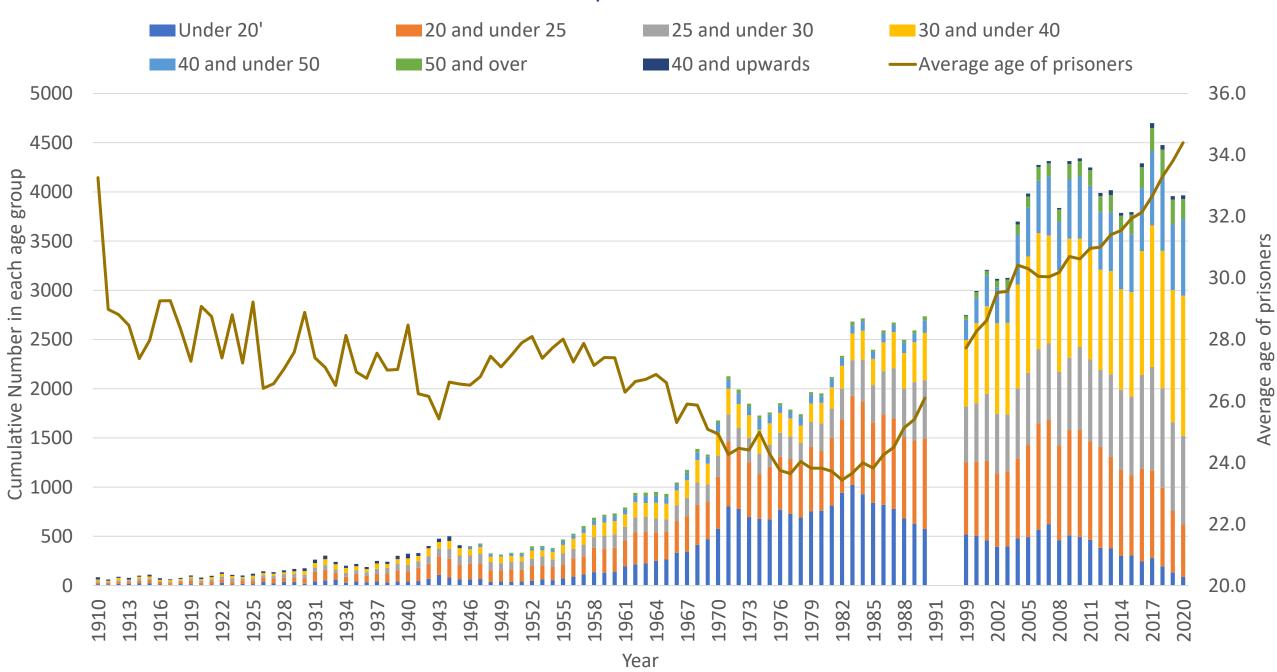
# Key trends in 2020

- Imprisonment rates of males at ages 17-19 and 20-24 have fallen to such a significant extent that for those born since 1990, the rates now experienced were last seen in the early 1960s.
- While all ethnic groups have experienced this fall, it is especially significant for Maori because of the much larger decline in the share of the population no longer imprisoned at these ages.
- At older ages, 30-39 and 40 and over, the imprisonment rates have been steadily rising in line with the ageing of the cohorts who were taken into custody at extreme rates when younger. For those aged 30-39, the increase in rates began around 1986, while it was around 1996 that the rates for those aged 40 and over began to rise.
- At ages 25-29, little has changed since the early 1970s.
- The declining trend in imprisonment rates of Maori aged 17-19 has fallen below the rising trend in the child custody rates for Maori children.
- Some 5 percent of Maori males aged 25-29 are in prison as either sentenced or remand prisoners

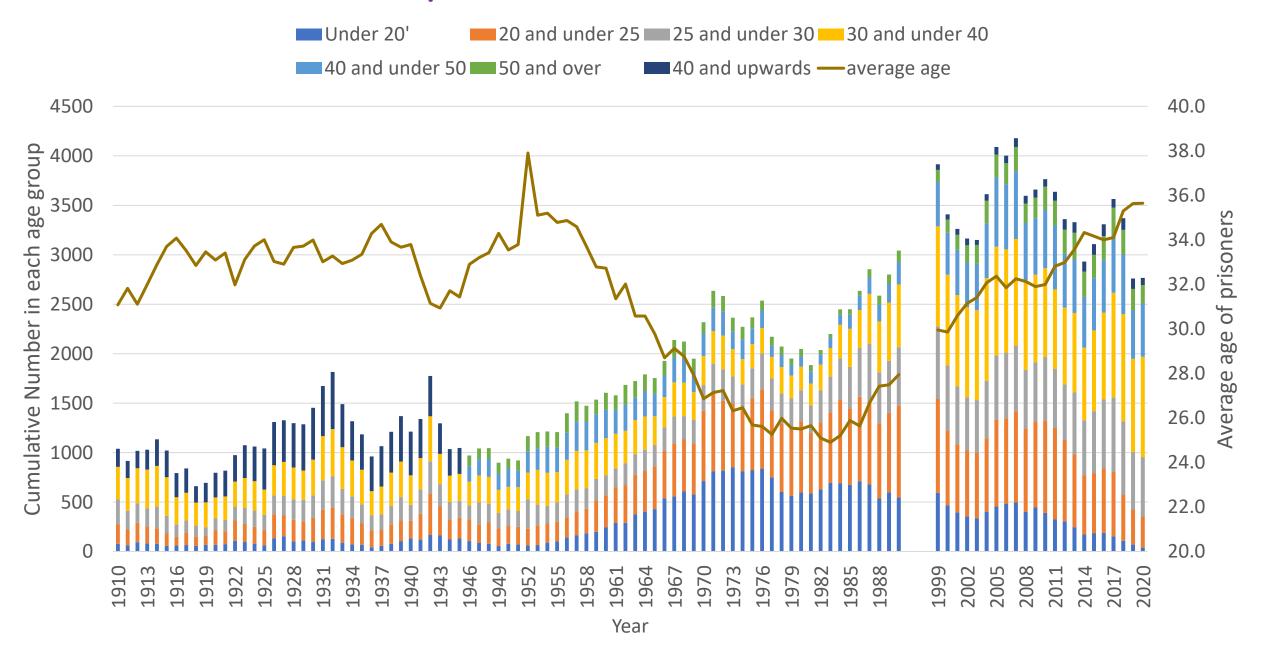
### Ethnicity of males sentenced to prison 1980 - 2020



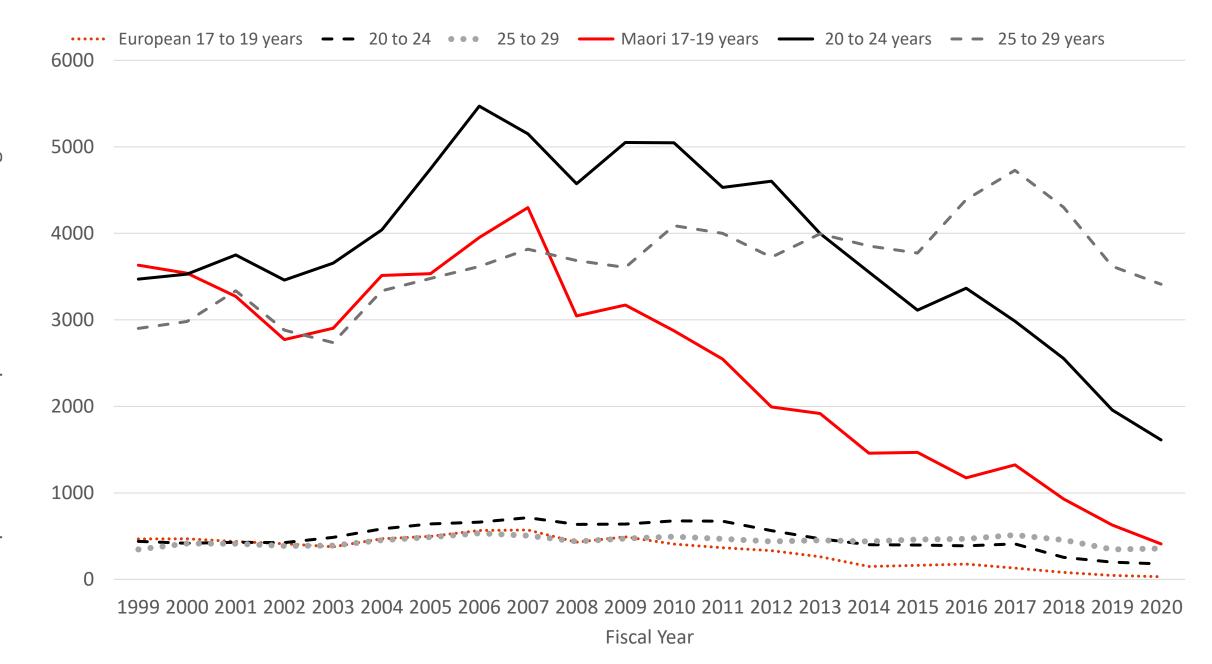
### Maori male prisoners 1910-2020



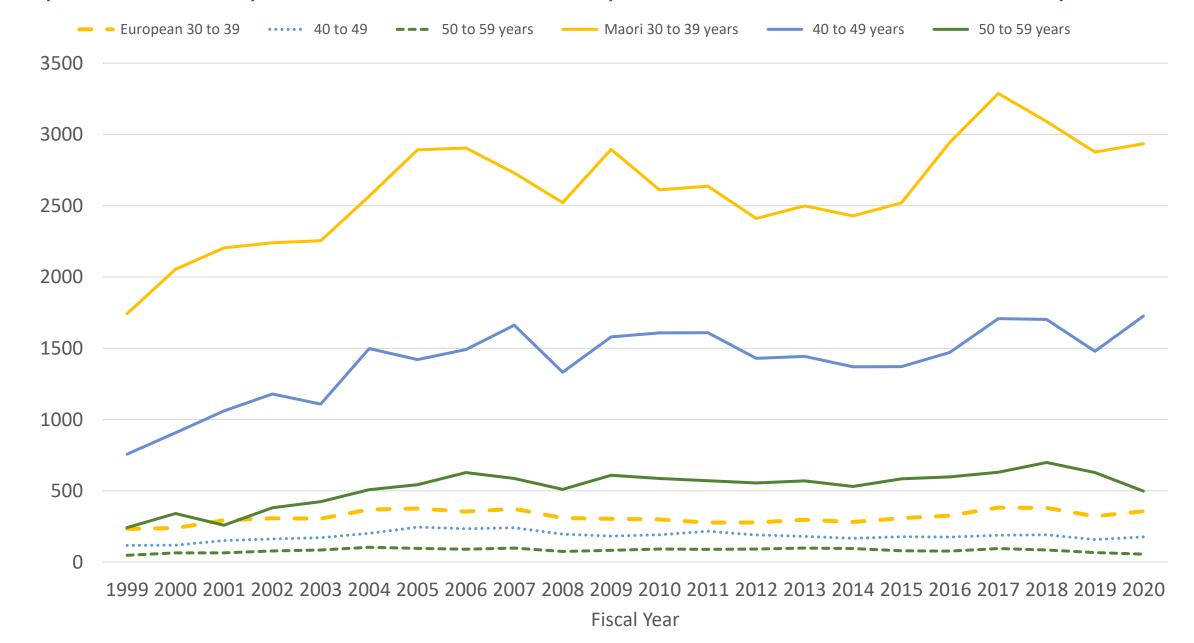
## Non-Maori male prisoners 1910 - 2020

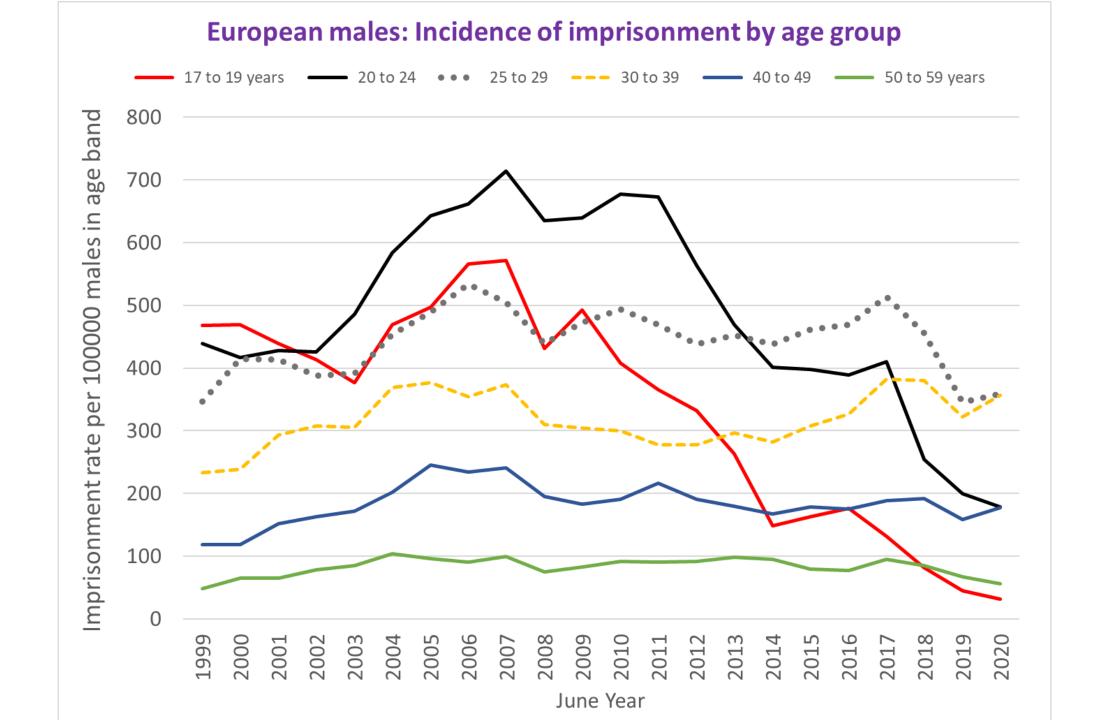


#### Comparisons of European and Maori trends in imprisonment rates for males under 30 years



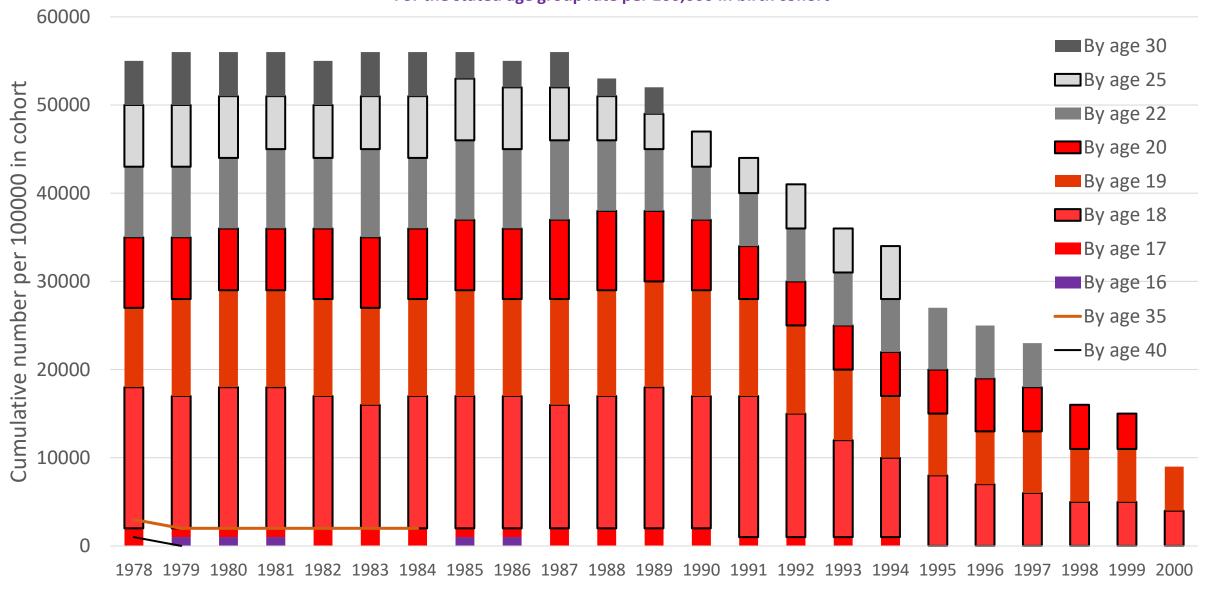
### Comparisons of European and Maori trends in imprisonment rates for males over 30 years





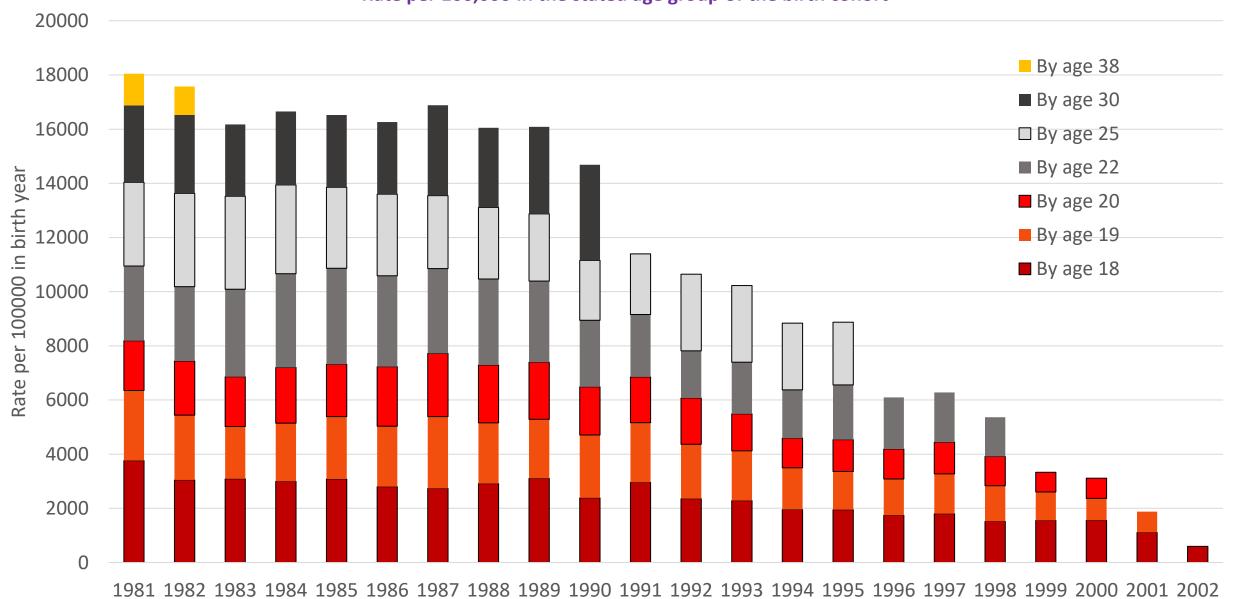
# The changing ages at which successive cohorts of Māori males born between 1978 and 2000 received a first conviction:

For the stated age group rate per 100,000 in birth cohort



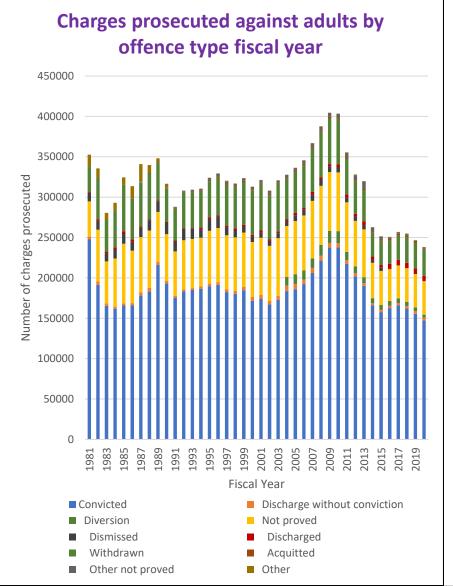
# The share of Māori males in the stated age group born between 1981 and 2002 placed on remand or sentenced prisoners for the first time:

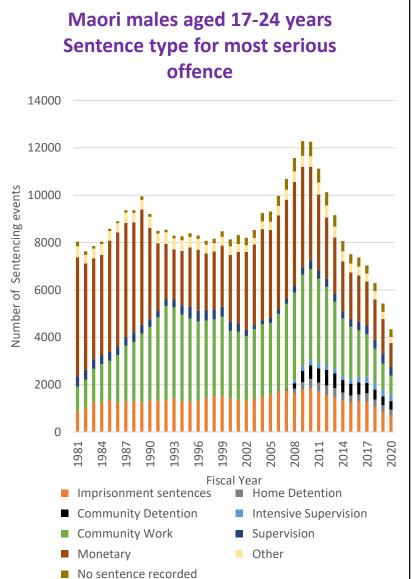
Rate per 100,000 in the stated age group of the birth cohort

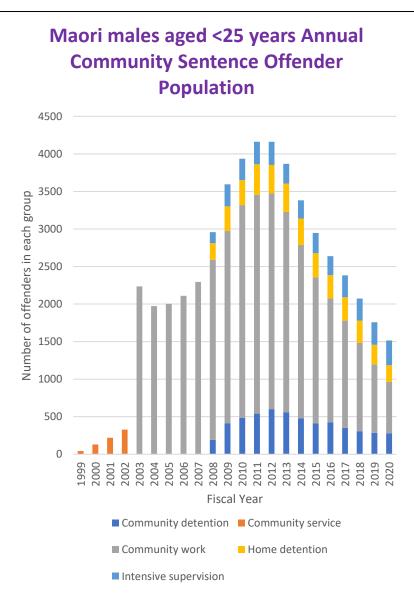


1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 200 Birth year of cohort

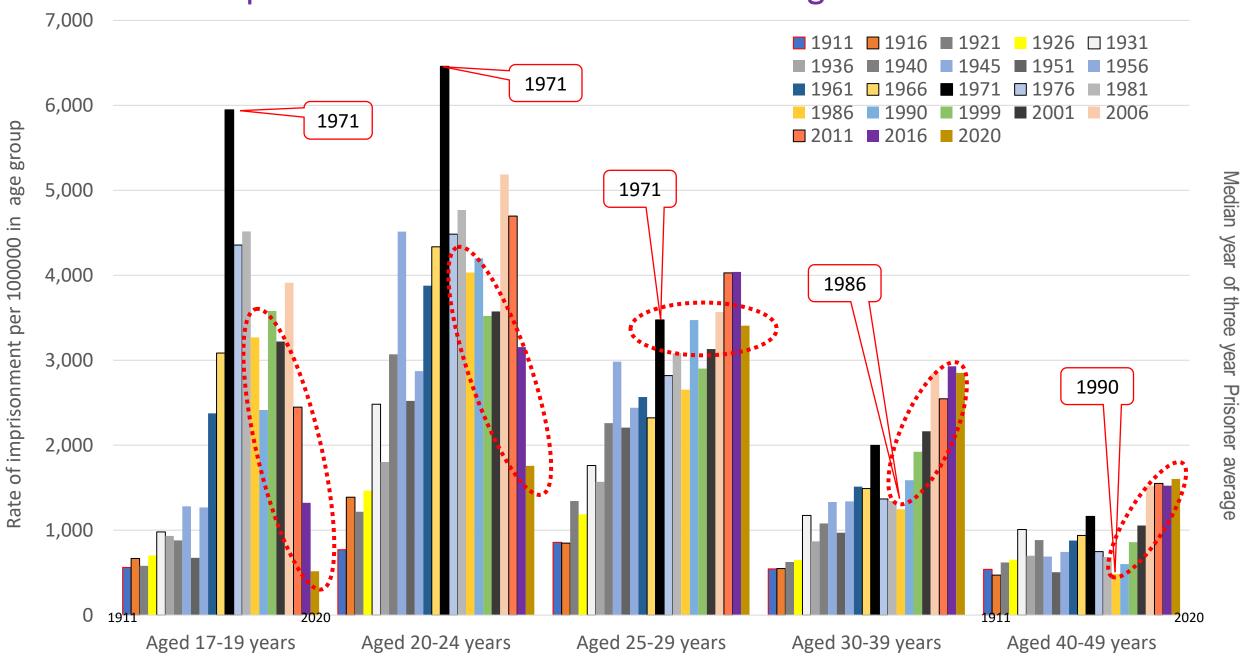
## Trend shifts



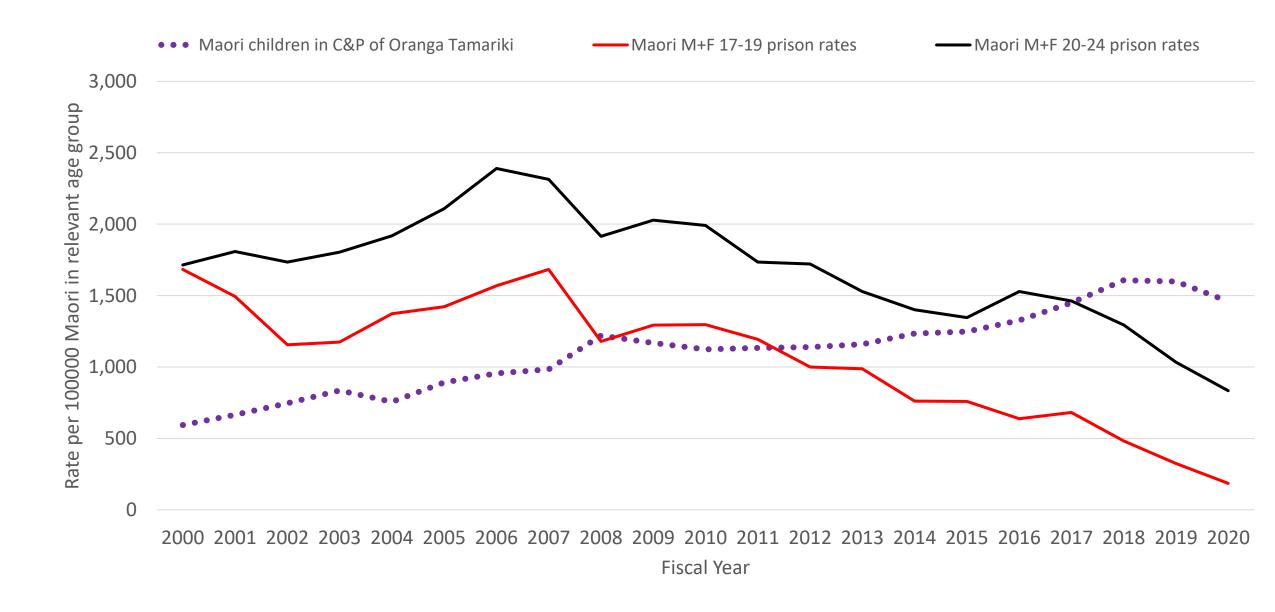




### Rate of Imprisonment of Maori males at stated ages 1911 to 1990



Comparison of child custody rates for Maori children with Imprisonment rates at ages 17-19 and 20-24 for males and females combined

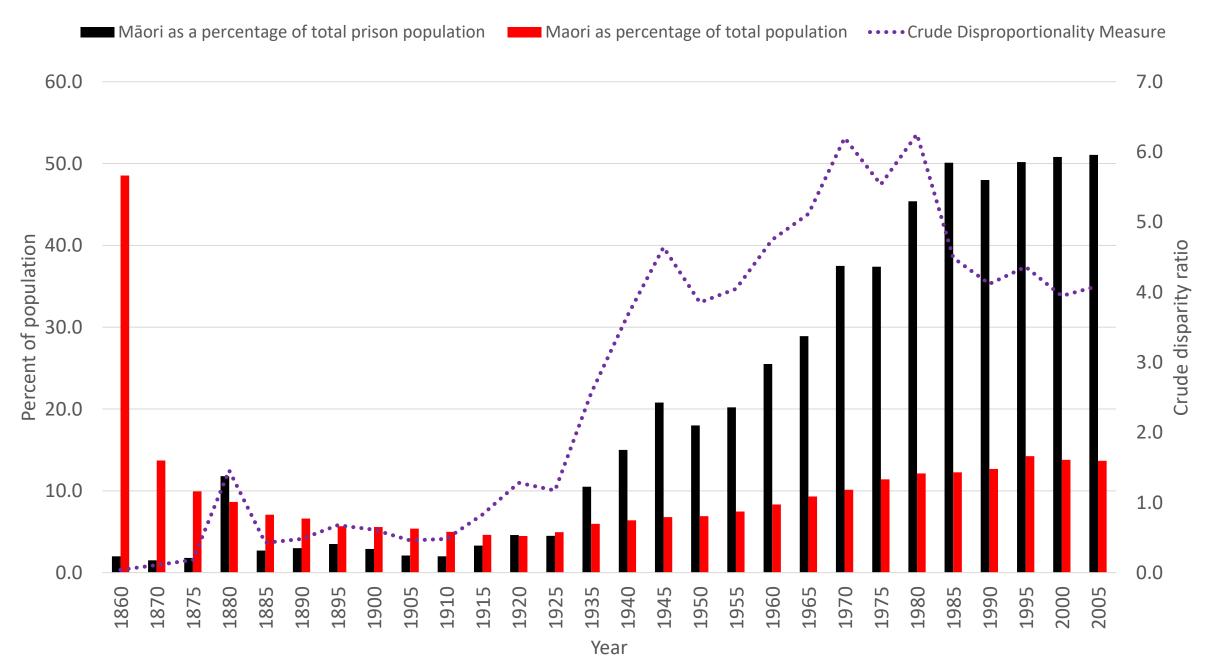


The extremes - 1960s to 1980s

### From individual effects to societal impacts

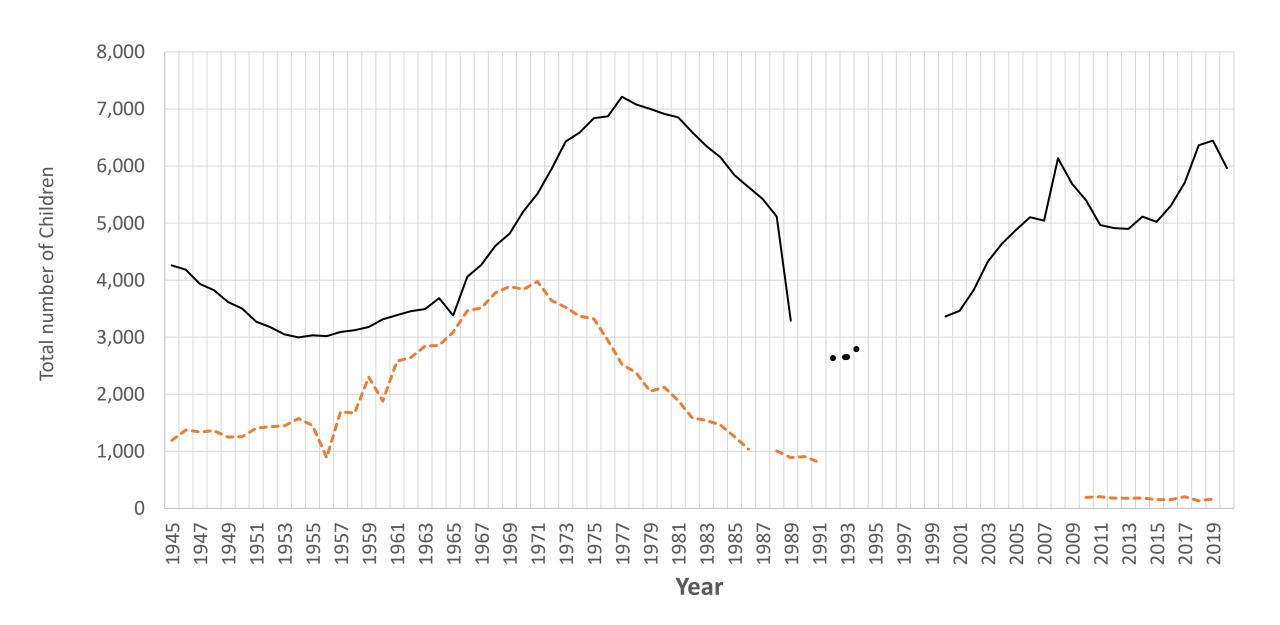
- By 1960, a sharp rise had begun in imprisoning Maori and non Maori young men in their late teens and 20s
- By 1970 a similar sharp rise was under way in the state custody of children.
- During the peak periods of state custody, nearly one percent of non-Maori and seven percent of Maori were taken into state custody between 1960 and the late 1980s
- Placing one percent of the young would be regarded as extreme.
- For Maori, by 1940 the rate of state custody was approximately four time that of non-Maori, but during the period 1960 to the late 1980s it peaked at seven times that of non-Maori
- The 1966 population census reported that half the Maori population then was under 15 years.
- The number of Maori children under 15 doubled between 1951 and 1966, while the number living in urban areas quadrupled over that time. This generation experienced the most extreme rates of state custody of any that has been recorded
- The consequent effects on imprisonment rates in later life are seen at age 30 and 40 years in both Maori and non-Maori trends, as is the amplification in the disproportionate effect on Maori from the period of heightened disparity.

### Long term trends in crude disparity ratio Maori: European 1860-2005

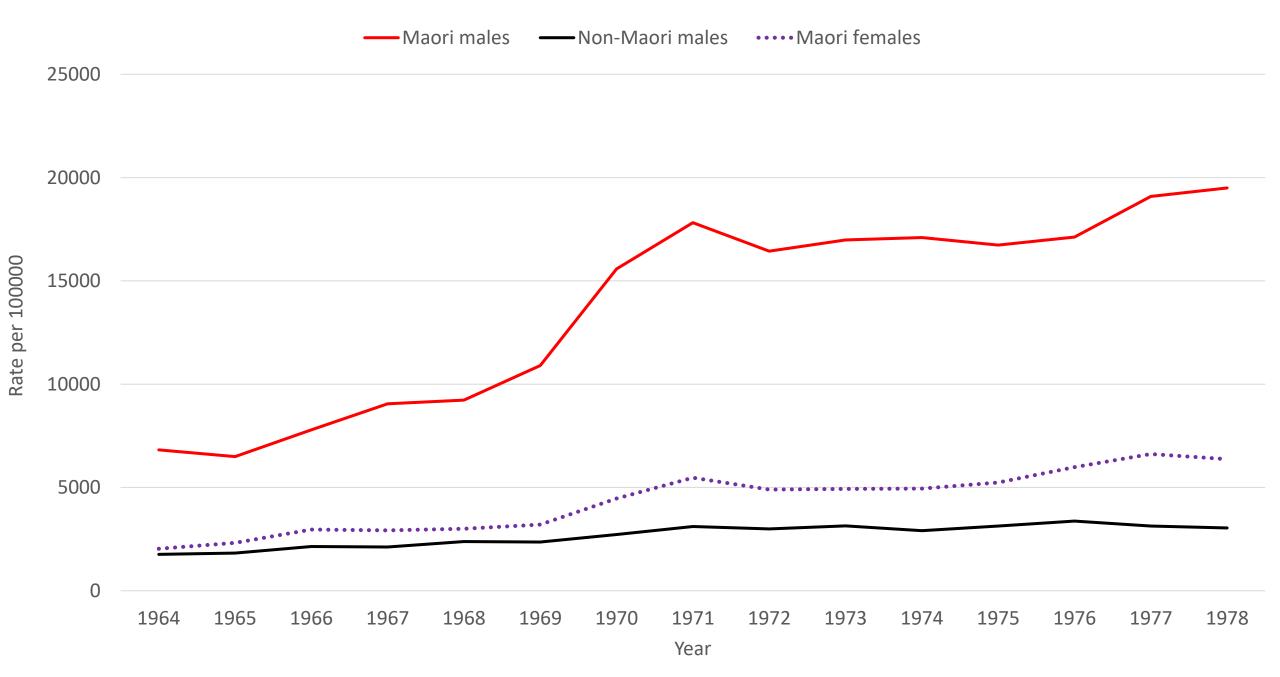


### Annual total: State Wards (Children in state care and custody) and Adoptions

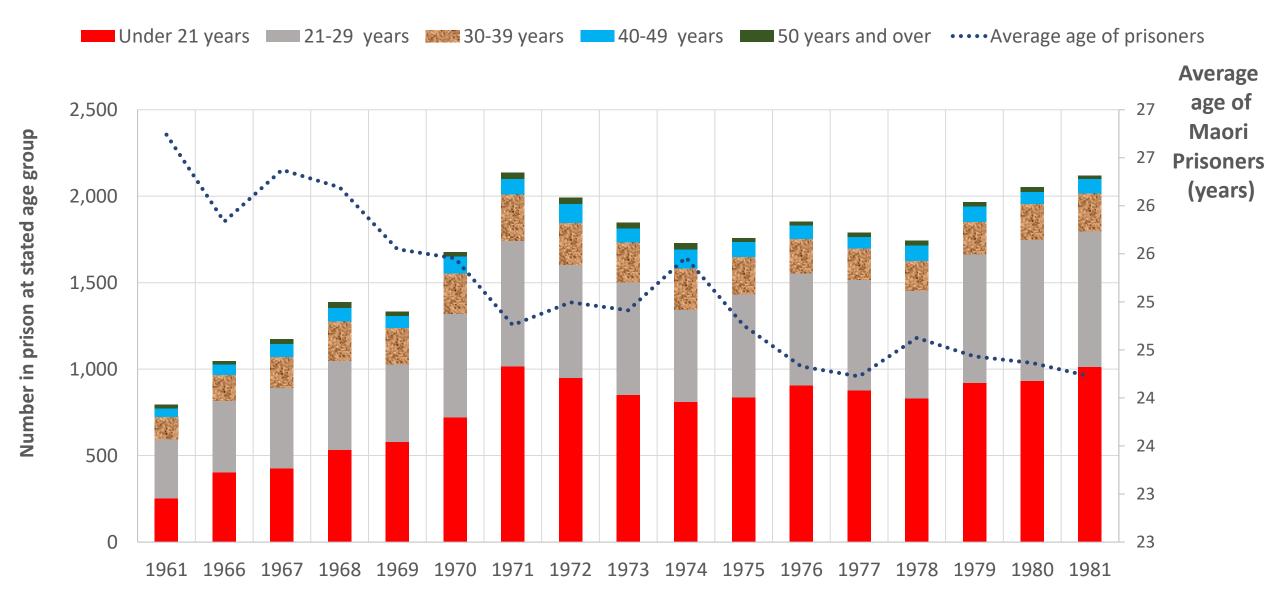
——State Wards —— Adoptions



### Rates of appearance before official bodies for juvenile offending aged 10-16 years per 100000 in group

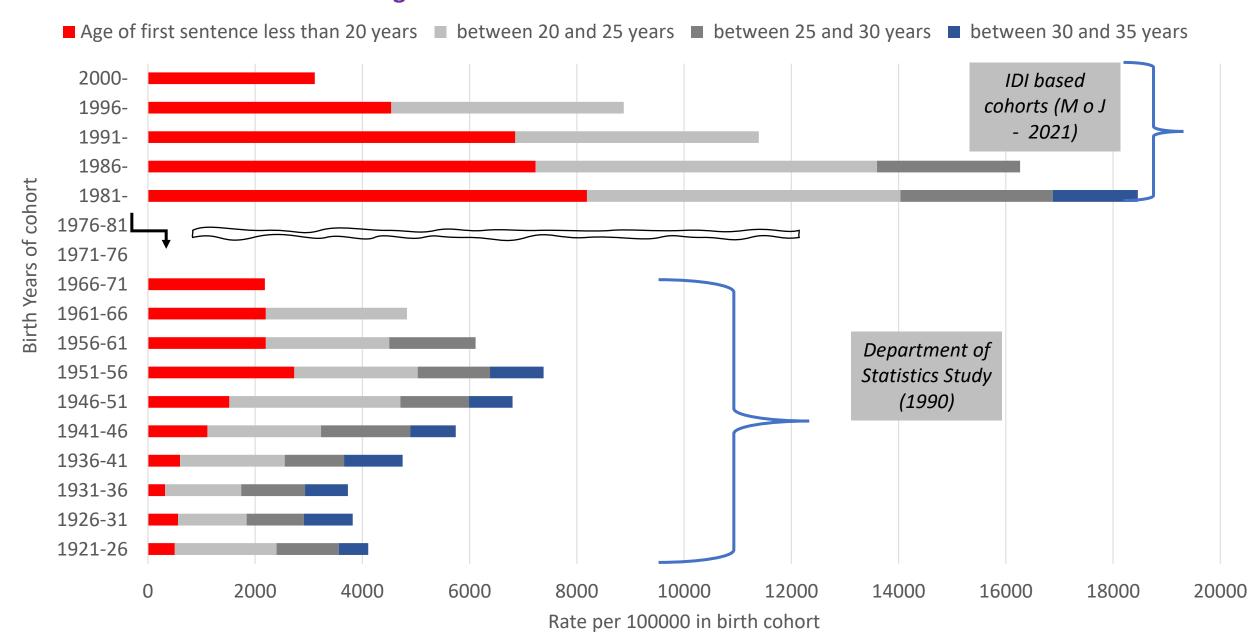


## Maori male prisoners - The crossover period 1961 to 1981



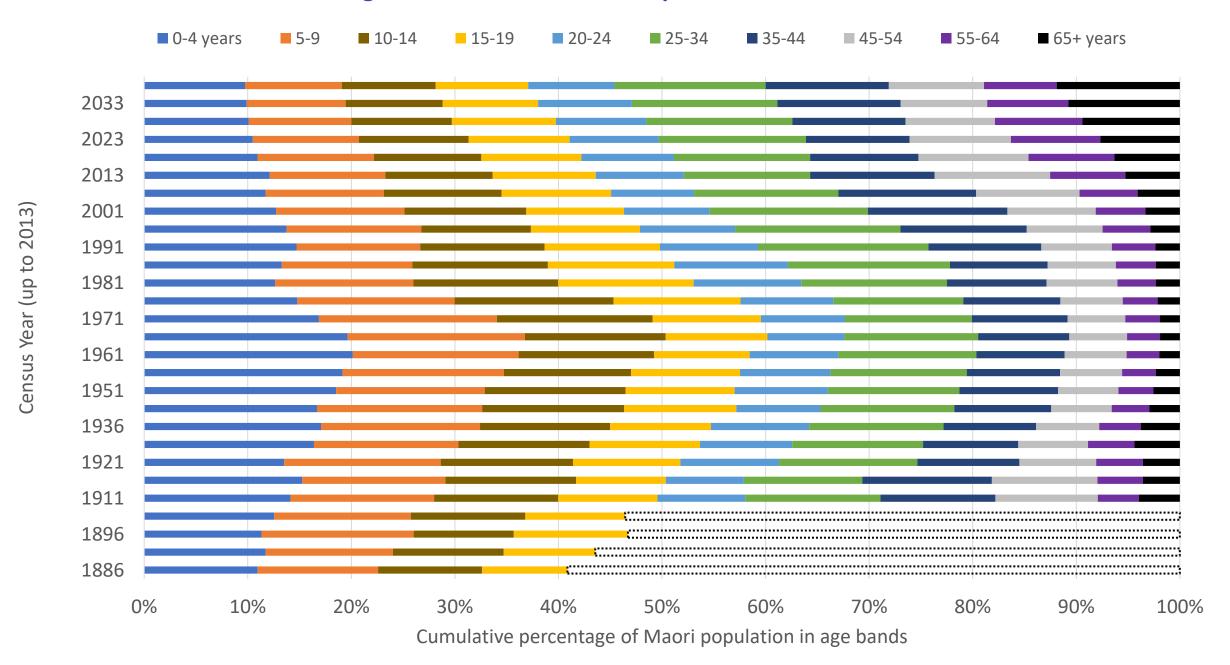
**March Year** 

# Rate per 100000 Maori males in stated birth cohort receiving first prison sentence at stated age for cohorts born between 1921 to 2000

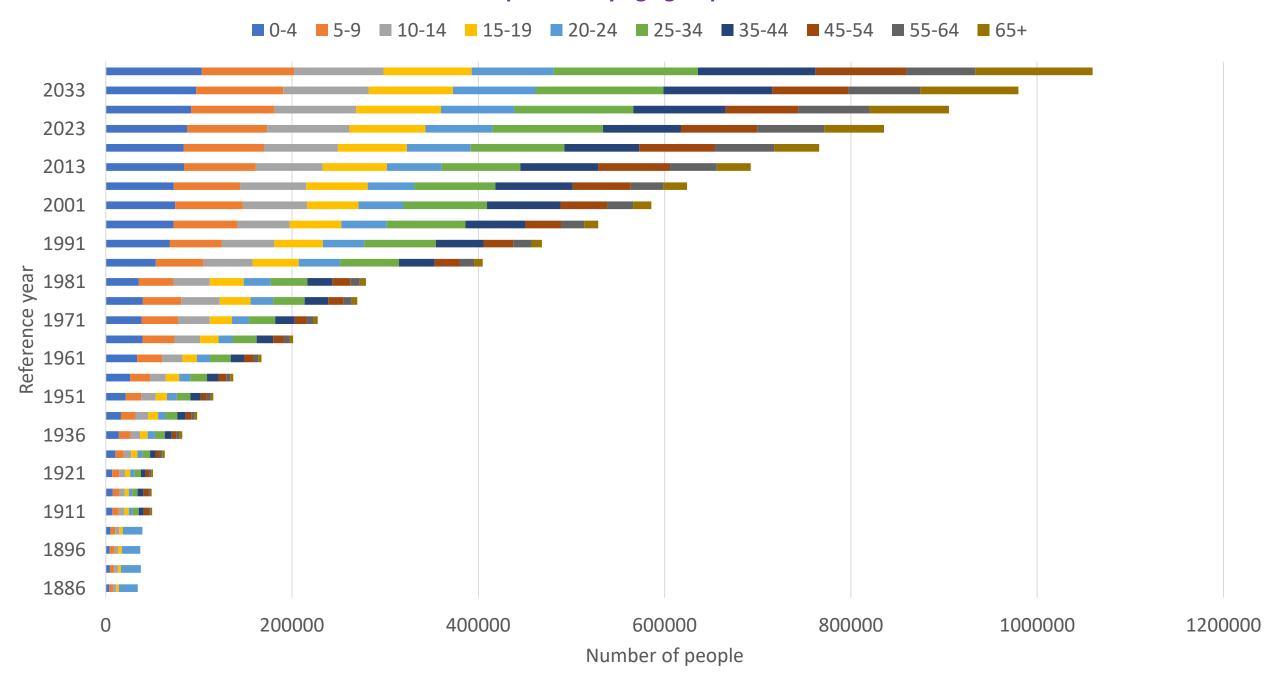


# Behind the trends

#### **Age Distribution of Maori Population 1886 to 2038**

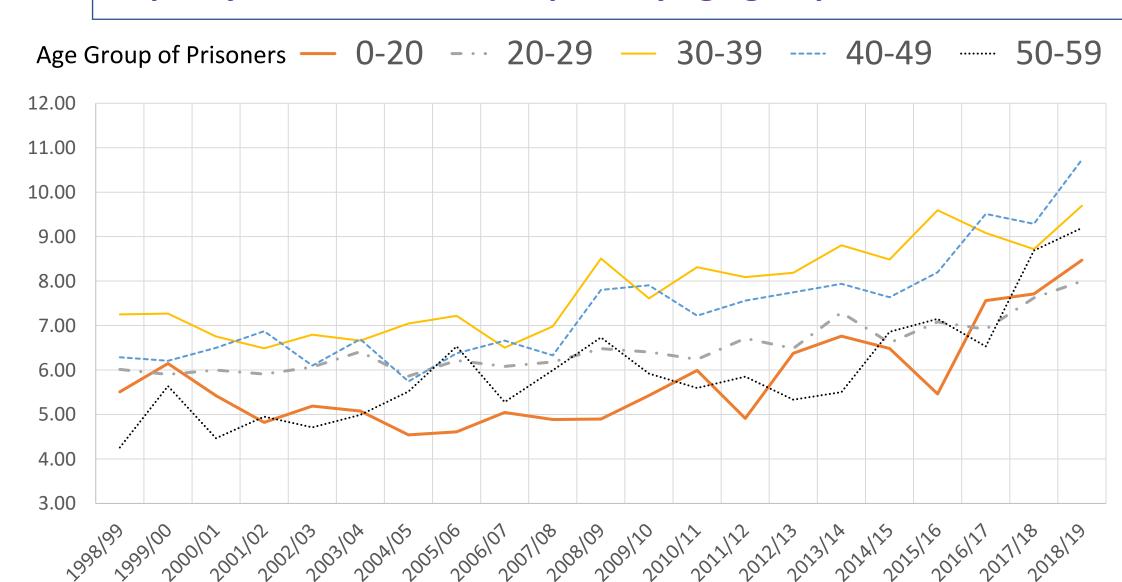


#### Maori Population by age group 1886 to 2038



# Proportionality tests

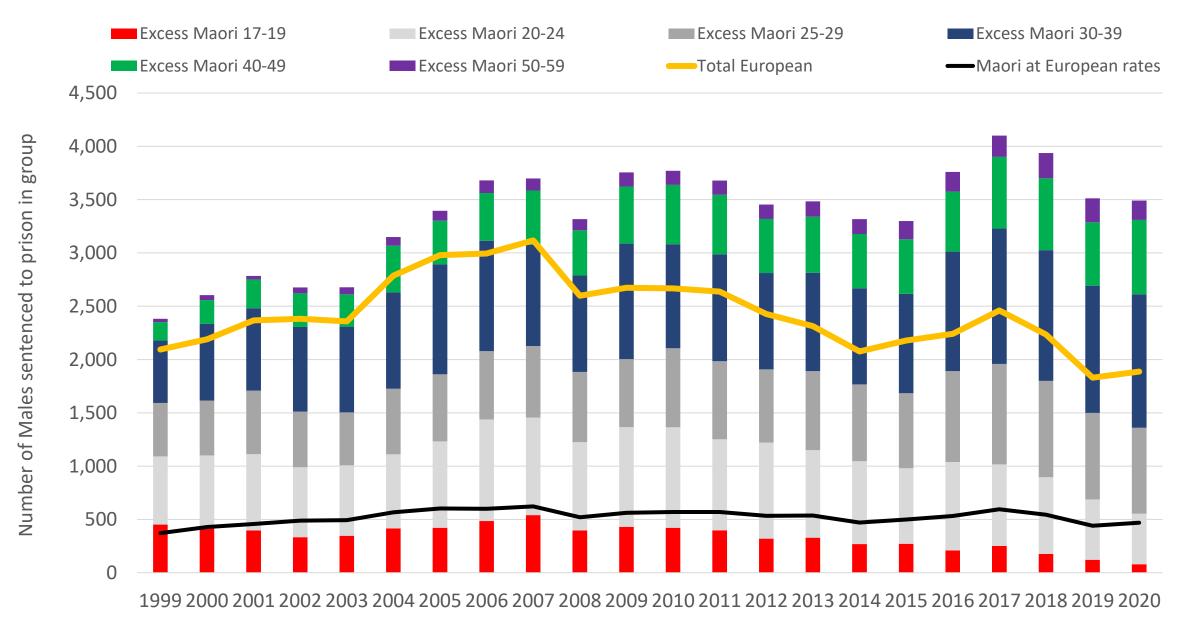
### Disparity rates - Maori: European by age group 1998 to 2019



Māori: European Rate Ratio

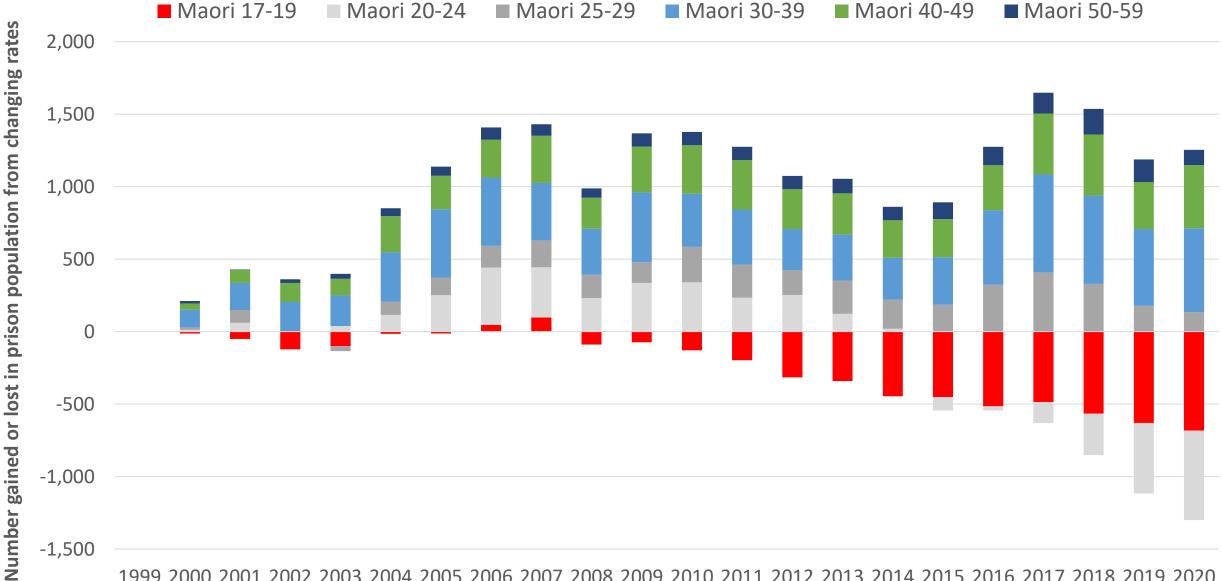
**Financial Year** 

#### Sentenced Prisoner Population - analysis of Maori excess by age group 1999-2020

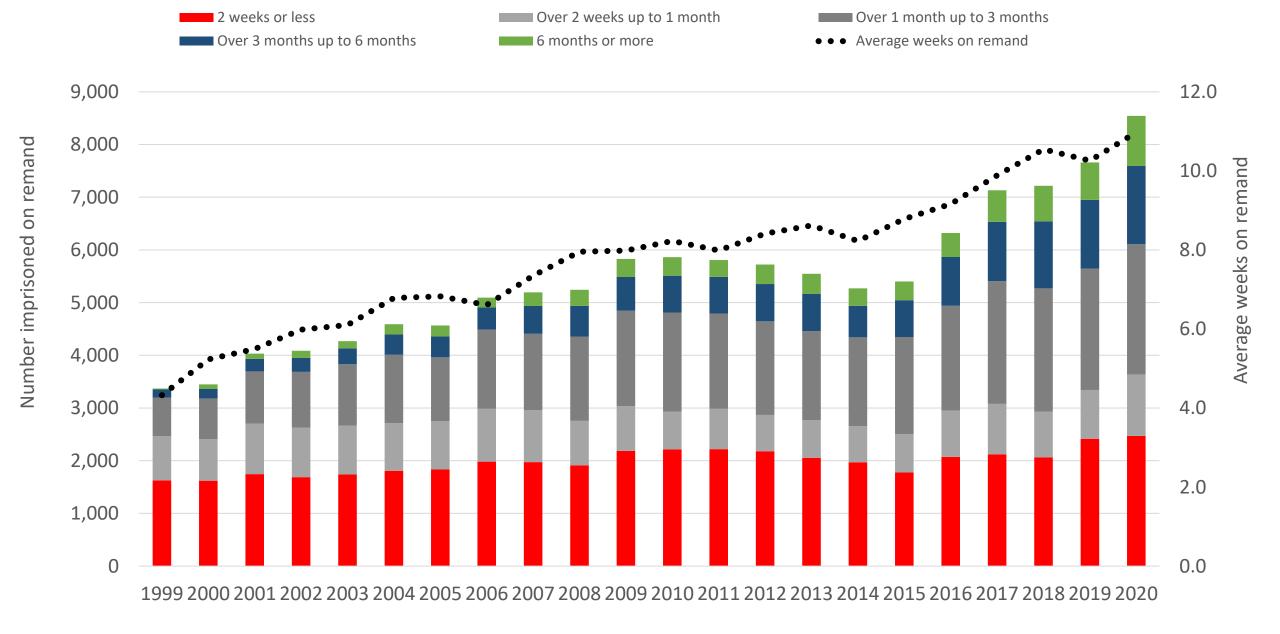


Fiscal Year

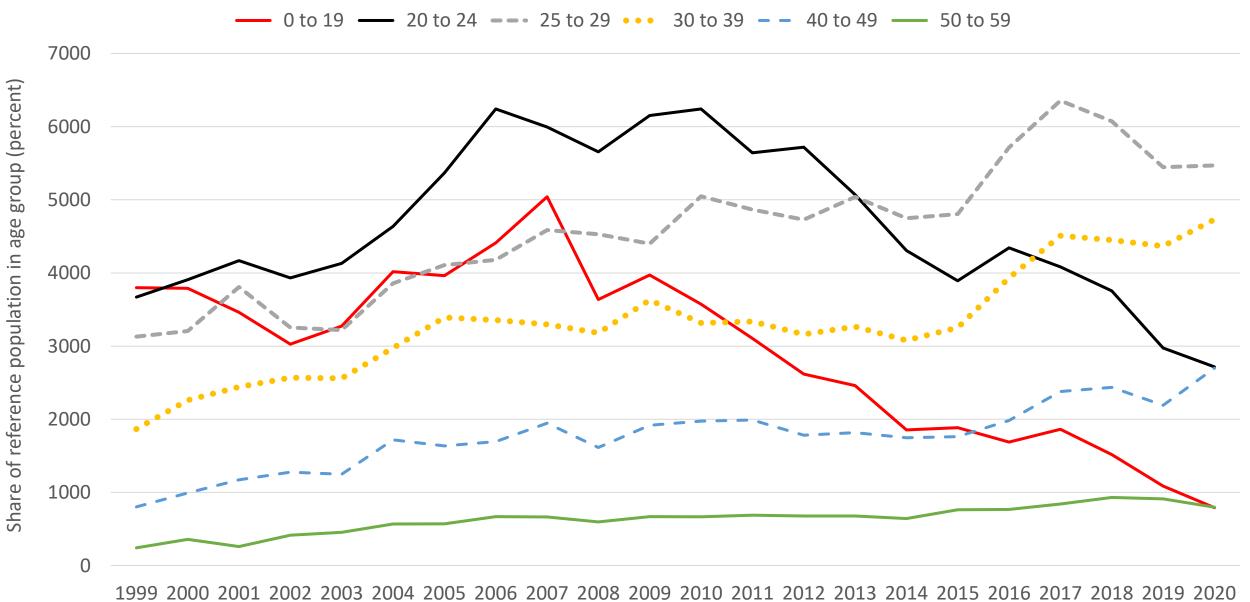
### Sentenced prisoner excess gains/losses from changing prison rates after 1999: Maori males



### Maori male remand prisoners by duration of remand and annual average duration

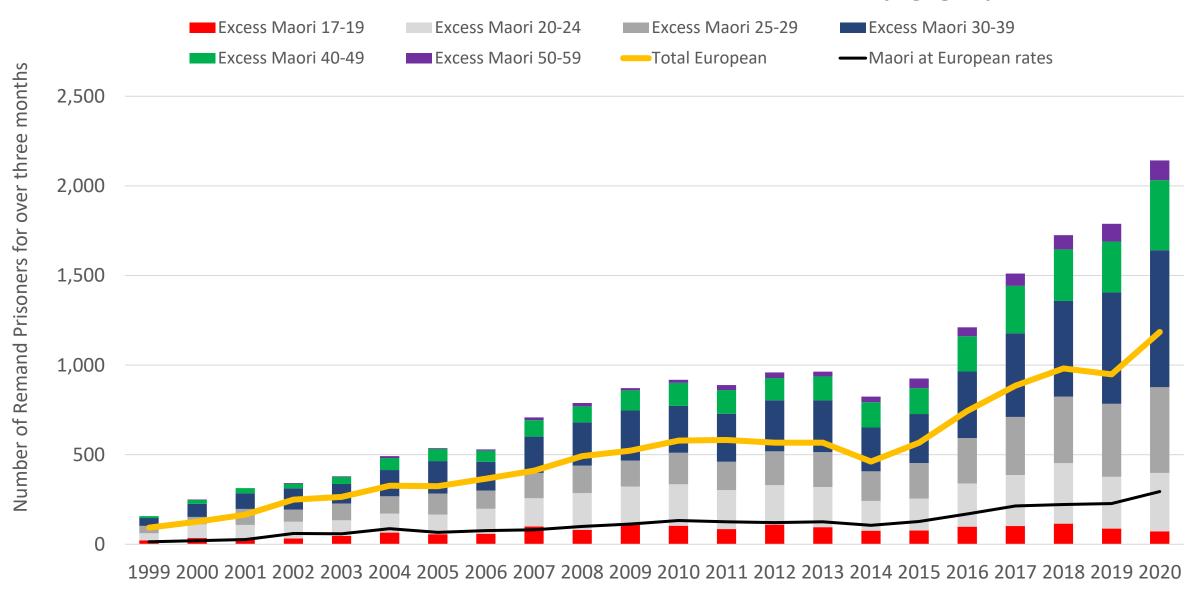


### Maori male prisoners (remand +sentenced) as share of age group 1999-2020

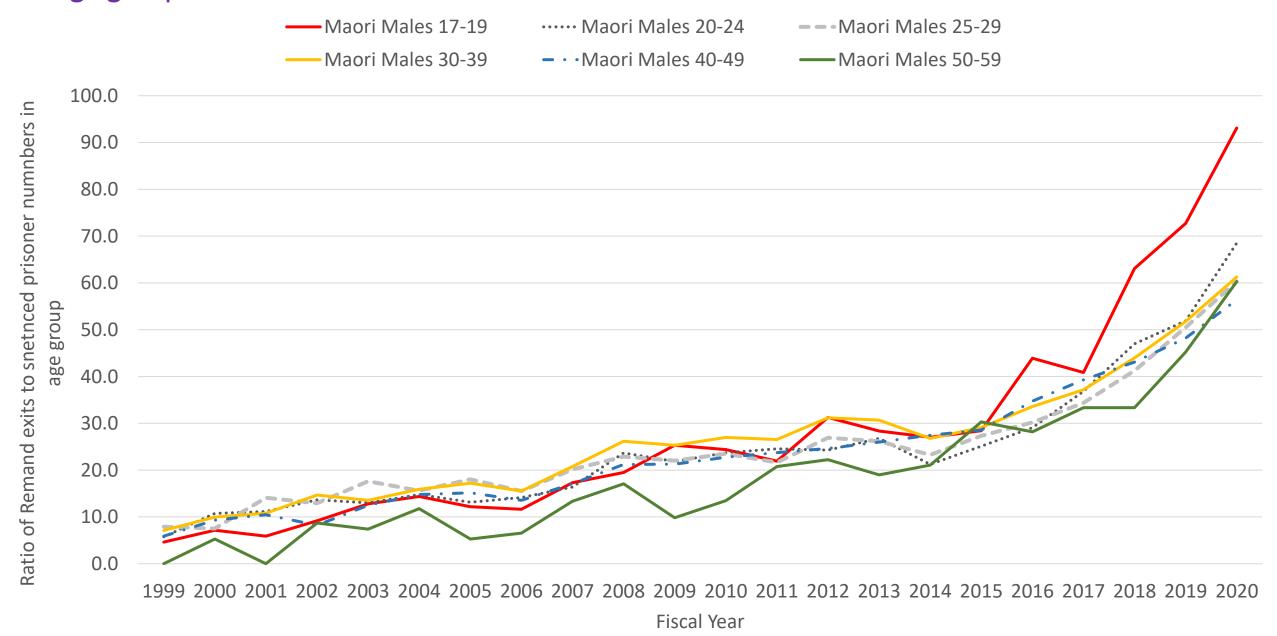


1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 Fiscal year

#### Prisoners on remand for more than three months Maori excess by age group



Remand ratio - Ratio of remand exits after 3 or more months to sentenced prisoners in age group



# Evidence and statistics

# Why a statistician's eye on evidence and the administration of justice, and of other statutory social services

Scientific foundations: statistics helps get rid of bad theories (Popper)

- Provide a counterweight to slogans, anecdote, sentinel events and fears
- Counter the narrowness of Ministerially-determined performance measures
- Enable informed curiosity, focus research, challenge and reflection

Practitioner experience: statistics enables governments to make more efficient/effective policies (the economist's justification).

- Bridge the gap between research and operational experience
- Enable transparent responses to volatile demand pressures

Public Trust: 'I don't know whether statistics rule the world, but they do tell us how well the world is ruled.' (Goethe)

- Inform, respect and meet obligations of the Treaty of Waitangi
- Monitor proportionality between cultures
- Know when past extremes in policy endure to the present for Maori

### The connection between evidence, trustworthiness and public legitimacy

Accessible, transparent, comprehensive, timely information about outcomes and context	Monitor effectiveness, proportionality of outcomes and NZ relevance of evidence system, especially Māori
	Vindication of system capability for integrated outcomes/ process (including reintegration) across multiple agencies, family and whanau
Operational assurance	Assurance of proportionality of surveillance, screening and selection practices
	Capacity to manage process variability
	❖ Assurance of compliance with obligations of NZ Laws
Public legitimacy and	❖ Validation of science and evidence behind practice
proportionality of science and	Monitoring proportionality, human rights and other Treaty and
research that shapes practice.	international obligations
	❖ Treaty of Waitangi

## The nature of disproportionality

- Invisibility
- Loss of human rights
- Group or societal effects
- Excess prevalence
- Simple ratios

# Autonomy and co-ordination – the limited options of the justice sector

- Justice sector predominantly a mix of variously autonomous bodies (plus, NGOs and other community organisations, professional associations
  - i. Constrained capacity for affirming a common focus on sector wide change
  - ii. Limited Parliamentary obligation for system-wide practices and policies
- Options for supporting some commonality of direction in such a sector include:

	Commonality of purpose and partnership
Sector	Sector wide information standards
Leadership	Regular sector wide reporting of outcomes
	Sustained professional capability
	Continuous improvement commitment that spans all
	bodies in sector
Parliamentary	Clarity and consistency in political goals
Leadership	Established capability for independent third party review

### Key conclusions

- ❖ Past policies continue to influence prisoner numbers.
  - Policy extremes between 1960 and mid 1980s involved state custody for children and young men
  - For Maori, demographic structures at the time have resulted in societal impacts
- Change in recent years in sentenced numbers has been dominated by a continuing decline since 2008/9 in prisoners aged <25</p>
  - Further reductions in younger prisoners will not bring about a significant drop in prisoner numbers
- Older prisoner numbers have declined to a lessor extent for European, but have increased for Maori aged 25 years and older
- Remand populations are on a strong upwards track, and disproportionately affect Maori and older prisoners.
- ❖ Of Maori males aged between 25-29 years, some 5.6 percent are in prison on remand for > 3 months or sentenced.
- ❖ The impact on children of 1 in 20 Maori males being in prison in this way needs greater study.
- The volatility in child welfare notifications and remand prisons places unmeasured pressure on service quality