Pacific Islands Longitudinal Families (PIF) Study

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Introduction – Prospective Studies

- Provide a temporal perspective

- Assess change/stability at cohort and individual trajectory levels

- Determination of incidence requires large-scale prospective studies

- General population incidence studies rare in mental health/addictions

- Provide estimates of problem onset – inflow (and cessation/outflow)

- Potential to identify risk/protective factors for problems onset (cross sectional studies include both new and extant disorders)

Prospective Studies

Have additional strengths including:

- Reduced recall error

- Stronger causal inferences

However

- Expensive

- Design sensitive to attrition and missing data points

- Changes in definitions/diagnoses/measurement over time

- Long time to generate useful data

- Administrative challenges – staff attrition/funding

Prospective Studies

Abbott & Volberg (1996, 1999)
Concluded major weakness in gambling research is heavy reliance on cross sectional correlation studies and lack of field research employing prospective, experimental and quasi-experimental designs. Also called for greater use of qualitative methodologies.

Taken up by Shaffer et al (2004)
"The road not (yet) taken."

Abbott & Clarke (2007) – review
"While few in number, recent in execution and typically methodologically compromised, findings from these studies significantly challenge core assumptions about the nature, development and measurement of problem gambling and raise important questions for future research."

"The potential (of prospective research) is profound – to serve as both catalyst and vehicle to move the field from its rather disjointed preoccupation with description and distribution to become a theory driven, cumulative science of problem gambling determinants and consequences."

Prospective Studies

- Approx 20 published gambling studies

- No jurisdiction – wide incidence studies

- Mostly non-representative small/moderate samples

- Various methodological problems including high attrition

- Psychological focus

- Large-scale general population studies underway in Sweden, Canada, Victoria and New Zealand

New Zealand Studies

Add-ons

- **Pacific Island Families (PIF) Study**

- **Dunedin Multidisciplinary Health and Development Study**

- **National Gambling Study (NGS)**

What is the PIF Study?

- An ongoing longitudinal study

- Tracks the health and development of 1,398 Pacific children born in South Auckland in 2000, and their families

- Collects data through structured interviews and other means

- Quantitative methodology

- 'Life course' approach

What are the aims?

- **Determine optimum pathways for children and families during critical developmental periods**

- **Identify risk and resilience factors that influence positive and negative outcomes**

- **Provide Pacific-specific evidence**

- **Make empirically-based strategic recommendations to improve the health and well-being of Pacific children and families and address social disparities**

What is investigated?

- **Demographics**
- **Child development**
- **Child behaviour**
- **Peer relationships**
- **Child and family health**
- **Family finances**
- **Cultural aspects**
- **Partner relationships**
- **Parenting and home environment**
- **School and community environment**

PIF Supplementary Studies

- **OME at 2 years**

- **Gambling (6 & 9 years)**

- **Nutrition and Body Size (4, 6 and 9 years)**

- **Physical Activity (6 years)**

- **Traffic & Indoor Air pollution (9 years)**

- **Oral health (9 years)**

- **Hearing (11 years)**

Who funds the PIF Study?

- **Core funding from the Foundation for Research, Science and Technology and the Health Research Council**

- **HRC Programme Grant for 5-year *Transition through Adolescence* phase at 14 and 16 years**

Who are the researchers?

Back left-right:
Fa'asisila Savila
Leon Iusitini
Dr El-Shadan Tautolo
Nick Garrett
Steve Taylor
Prof. Philip Schluter
Dr. Gerhard Sundborn

Front:
Shamshad Karatela
Amor Hirao
Prof. Janis Paterson

Absent:
Prof. Max Abbott
Dr. Melody Oliver
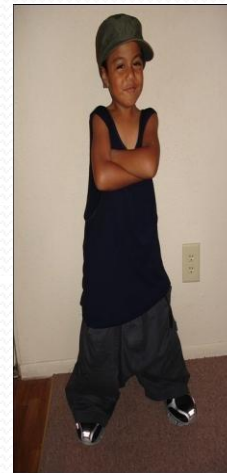**Upasana Jhagroo**

Phases of PIF Study

1,398	1,224	1,144	1,048	1,015	1,017	
6 weeks	1 Year	2 Years	4 Years	6 Years	9 Years	11 Years

PIF Family Fun Day 2011

Saturday 5th February 2011
AUT Manukau Campus

Special guests:
Tofiga
(from The Laughing Samoans)
Logan Swann
(former rugby player – Warriors)

Who participates and when?

- **Participants selected at birth where at least one parent identified as being of a Pacific ethnicity and was a NZ permanent resident**

	Mother	Child	Father	Teacher
6 weeks	✳	✳		
1 year	✳	✳	✳	
2 years	✳	✳	✳	
4 years	✳	✳		
6 years	✳	✳	✳	✳
9 years	✳		✳	✳
11 years	✳	✳	✳	✳

93% of eligible mothers consented and interviewed at 6 weeks.

Demographics of maternal cohort
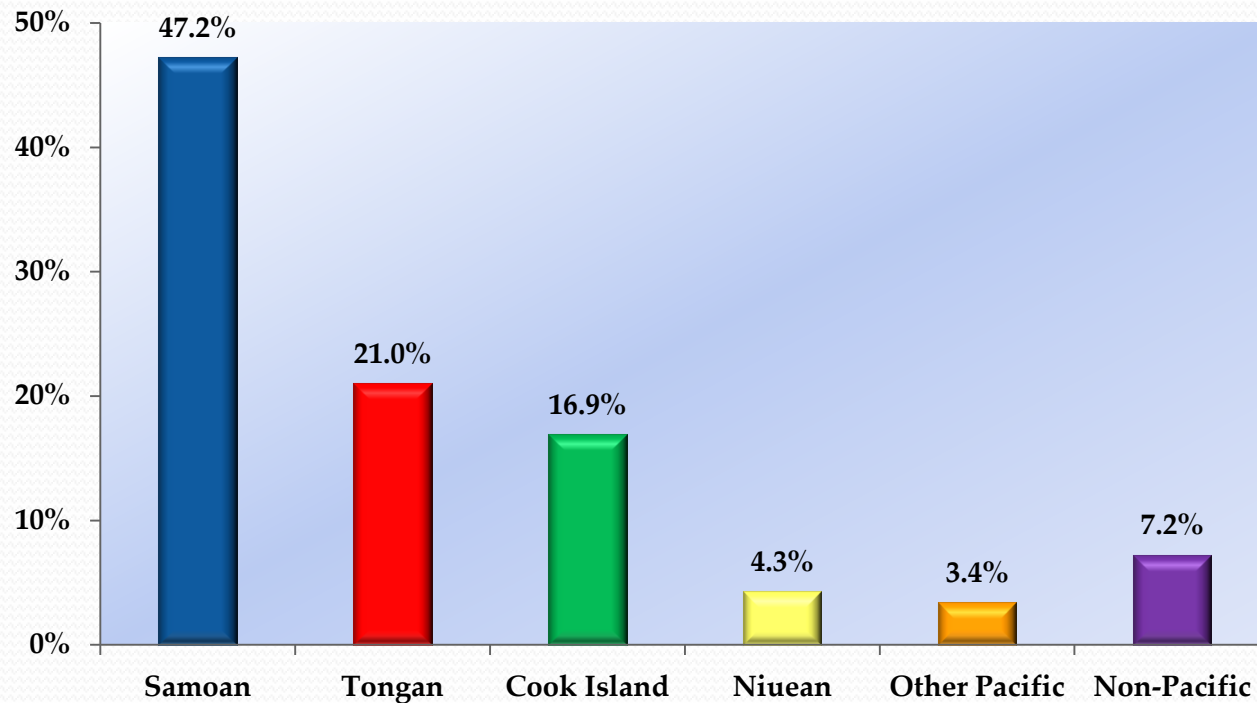
Mean age: **27 years**   NZ-born: **33%**

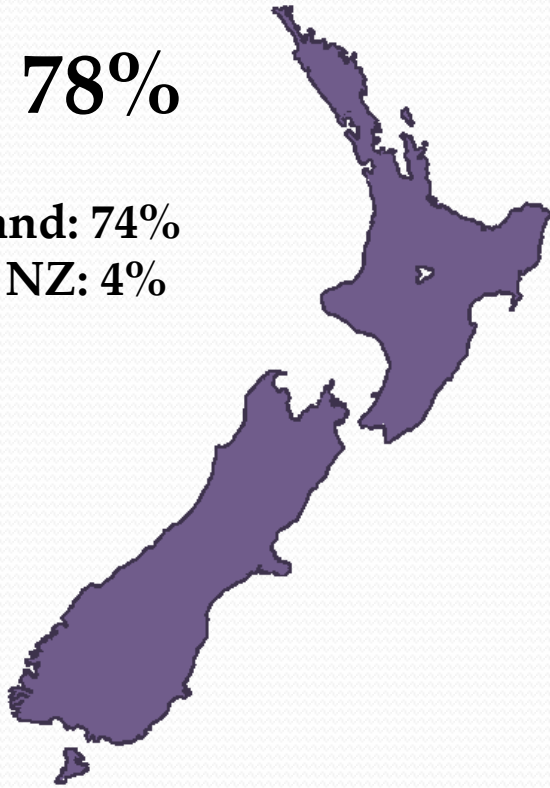Married or de facto couples: **81%**   Post-school qualifications: **27%**

Where does the cohort live?

NZ: 78%

Auckland: 74%
Other NZ: 4%

Australia: 16%

Rest of world: 2%

Where can I get further information?

www.aut-pif.ac.nz

Pacific Islander gambling Background – Ethnic differences in gambling

Gambling in the last 12 months among adults, by ethnic group and gender (unadjusted prevalence)

Ethnic group	Gender	Prevalence (%) for total adults (95% CI)
European/Other	Males	68.0 (66.0–69.9)
	Females	67.3 (65.7–68.9)
	Total	67.6 (66.2–69.0)
Māori	Males	71.6 (68.7–74.5)
	Females	71.9 (69.6–74.3)
	Total	71.8 (69.8–73.7)
Pacific	Males	55.1 (49.4–60.7)
	Females	55.2 (50.5–60.0)
	Total	55.2 (51.2–59.1)
Asian	Males	44.9 (40.0–49.8)
	Females	43.3 (39.1–47.5)
	Total	44.0 (41.0–47.1)

Source: 2006/07 New Zealand Health Survey

Note: Total response ethnic group has been used. Ethnic groups cannot be compared using the unadjusted prevalence estimates presented in this table.
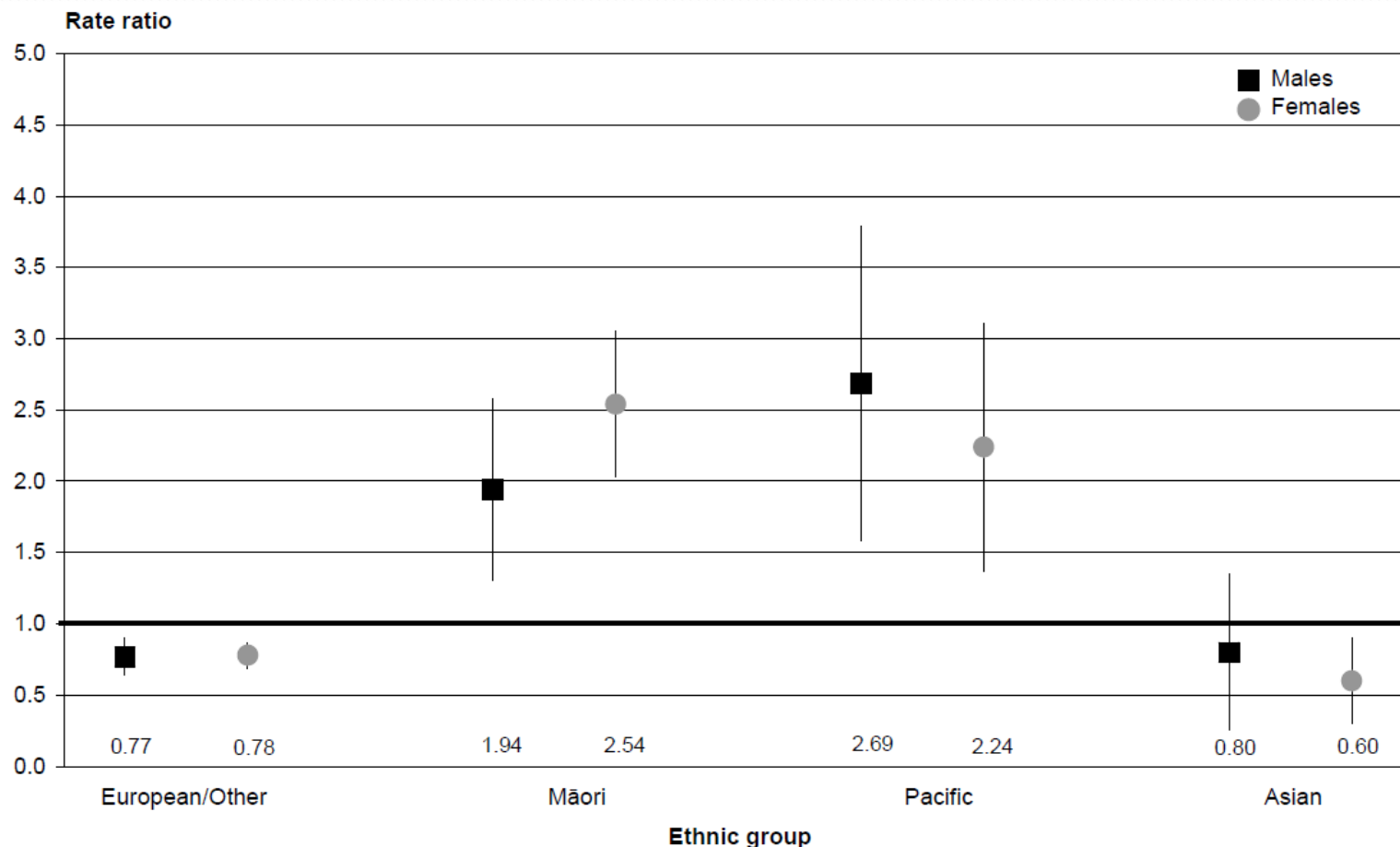
Combined problem and moderate-risk gambling, by ethnic group and gender (age-standardised rate ratio)
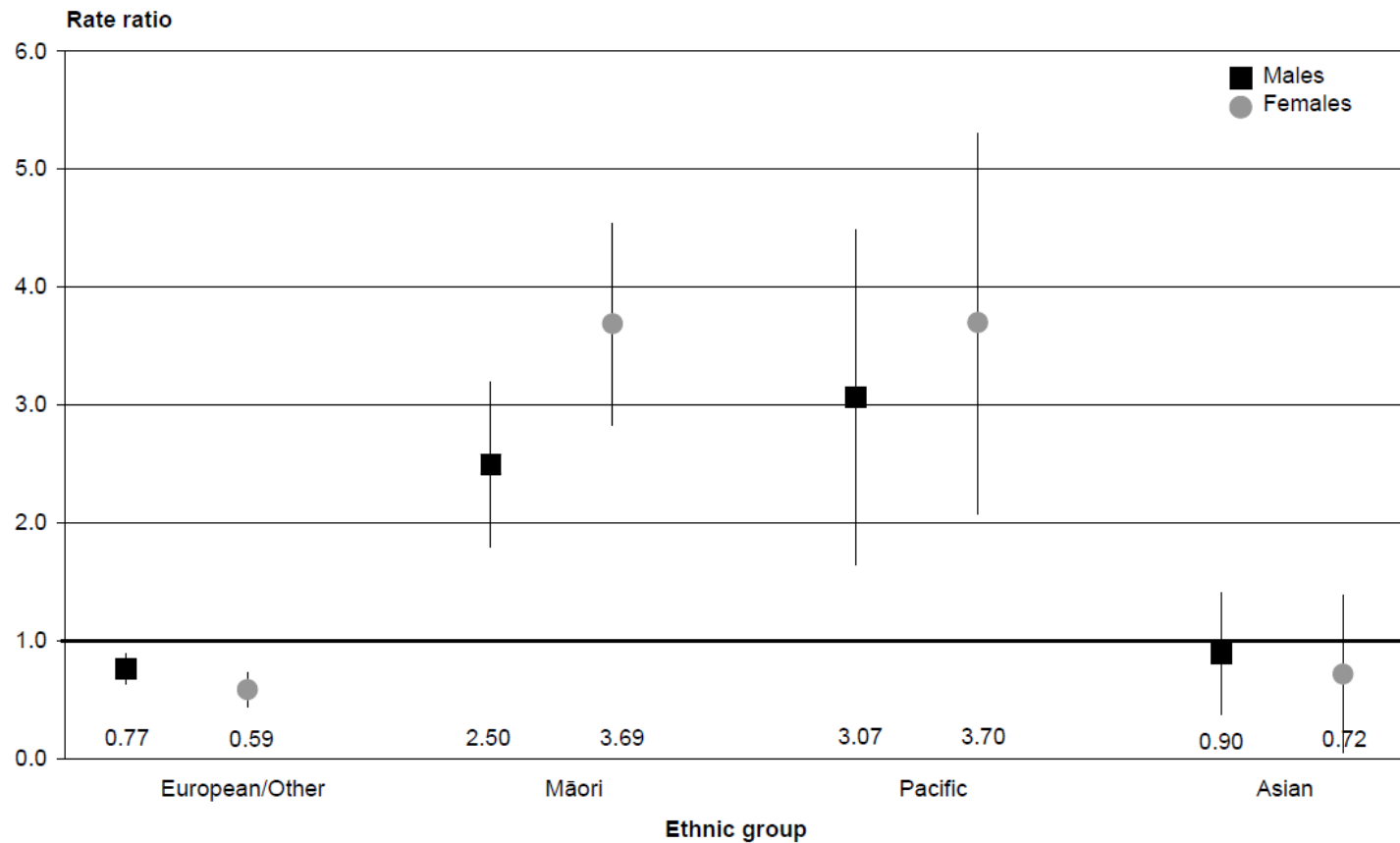
Source: 2006/07 New Zealand Health Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 15 years and over. Total response standard output for ethnic groups has been used.

Experienced problems due to someone's gambling in the last 12 months, by ethnic group and gender (age-standardised rate ratio)

Source: 2006/07 New Zealand Health Survey

Notes: Age-standardised to WHO world population. Reference group, with a rate ratio of 1.0 (indicated by the bold line), is the total male or female population aged 15 years and over. Total response standard output for ethnic groups has been used.

2006 selected gambling data for mothers and fathers

- **Bimodal gambling distribution**

- **36% mothers; 30% fathers gambled**

- **Smoking and alcohol consumption linked**

- **Ethnic differences in gambling participation for mothers but not fathers**

- **Tongan mothers lower participation but those who gambled 2.4x odds of being at risk/problem gambler**

- **Cultural orientation related to gambling**

- **4% of mothers and 10% of fathers reported problems because of someone else's gambling**

- **Gambling and problem gambling associated with psychological distress**

- **Gambling associated with being perpetrator and victim of verbal aggression (fathers)**

- **At risk/problem gambling associated with physical violence (fathers)**

- **For mothers, risk/problem gamblers less likely to perpetrate violence**

2009 selected gambling data for fathers and changes 2006-2009

N = 591

- **Taking up drinking associated with starting gambling (OR 2.8) and increased expenditure**

- **Giving up drinking associated with giving up gambling (OR 3.8) and decreased expenditure**

- **Becoming depressed associated with starting gambling (OR 3.3) and increased expenditure**

2009 selected gambling data for mothers and changes 2006-2009

Results

- N=1,001 Year 6, N=957 Year 9

- **Gambling prevalence ↑**
  - **36% Year 6**
  - **50% Year 9**

- **Gambling incidence slightly ↑**
  - **199 non-gamblers Year 6 = gamblers Year 9**
  - **90 gamblers Year 6 = non-gamblers Year 9**

Results: Changes

- **15% changed PGSI classification from Year 6 to Year 9**

		Year 9 (N)			
		Non-problem gambler (0)	Low risk gambler (1-2)	Moderate risk gambler (3-7)	Problem gambler (8+)
Year 6 (N)	Non-problem gambler (0)	272	15	11	3
	Low risk gambler (1-2)	14	1	0	0
	Moderate risk gambler (3-7)	3	1	1	0
	Problem gambler (8+)	3	0	0	0

Results: Potential risk factors

- **Prior gambling associated with continued gambling (OR 4.4)**

- **Worsening financial situation associated with gambling (OR 2)**

- **Mild deprivation level and smoking also associated with higher odds for gambling**

- **At least one life event associated with higher expenditure (≥ $40/month)**

Results: Potential protective factors

- **Change in marital status from partnered to separated associated with lower odds for gambling (OR 0.65)**

2009 gambling data children

Project design

- **Children aged 9 years in 2009 (N = 996: 506 boys, 490 girls)**
- **A few gambling questions asked**
  - **Have you ever bet money?**
    - **Was this with family/friends/both?**
  - **Have you played Housie?**
    - **Was this with family/friends/both?**
    - **Did you play for money?**
  - **Have you played cards?**
    - **Did you play for money?**
  - **Have you received a scratch ticket as a present?**
  - **Have you ever bought a Lotto ticket?**
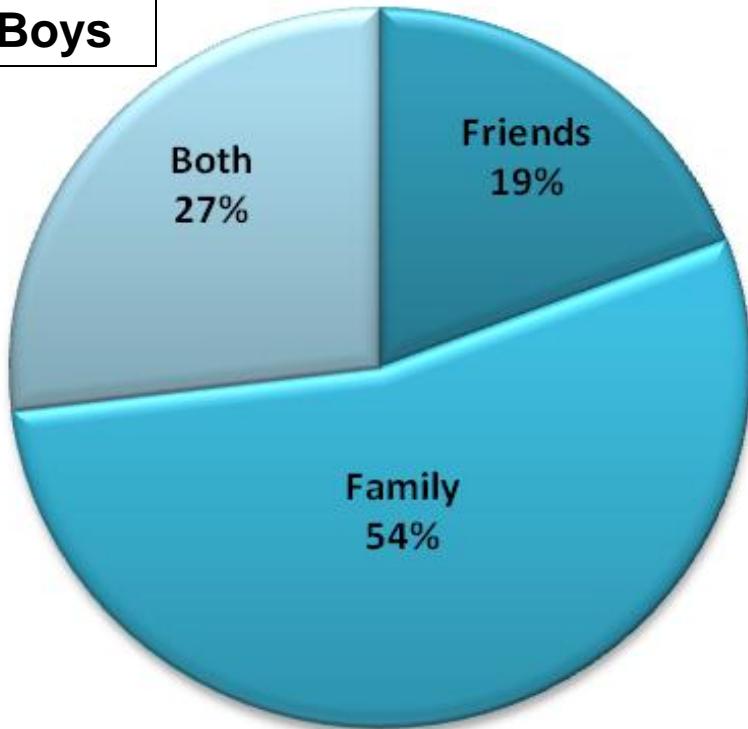
Results: Gambling participation
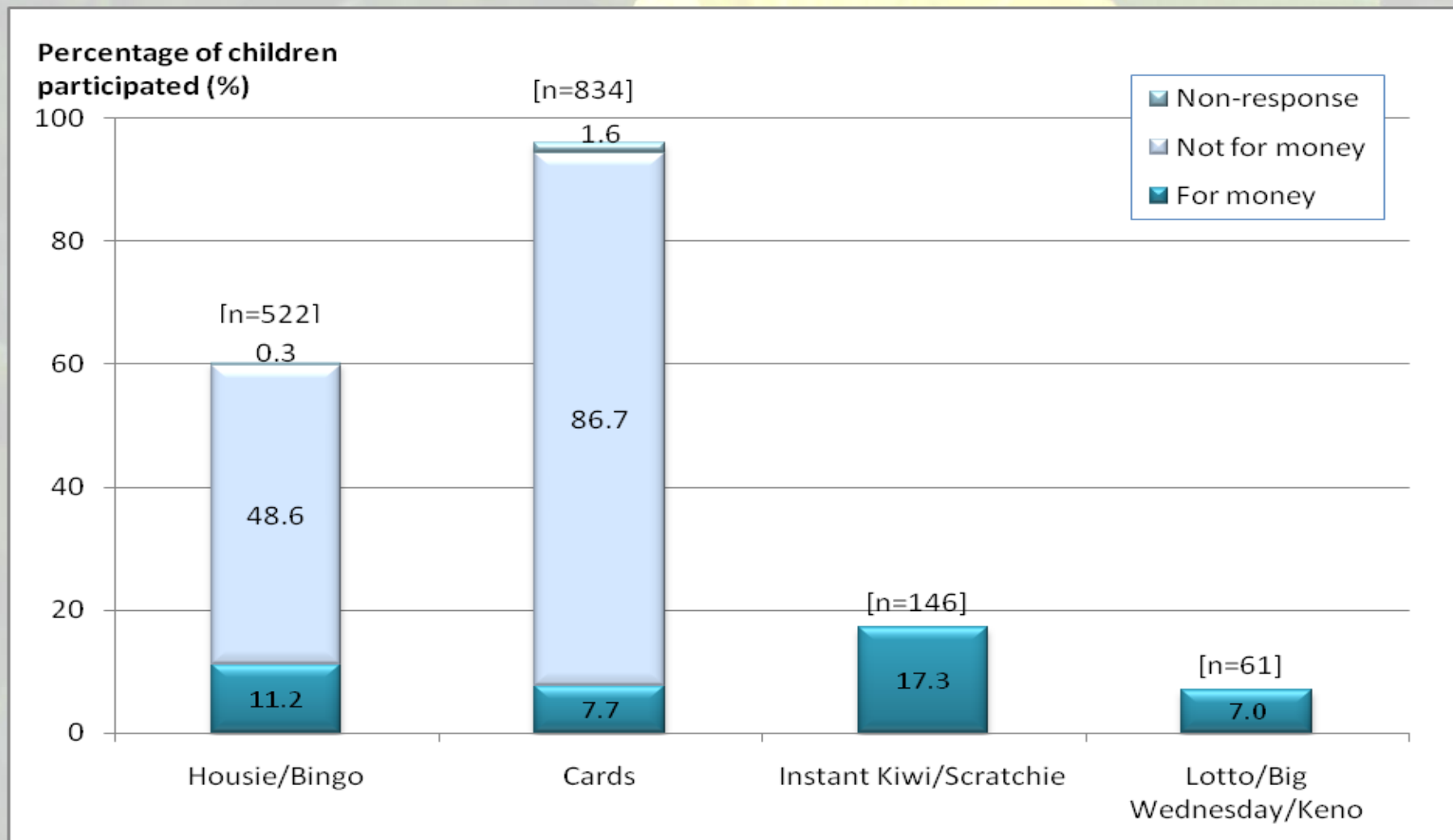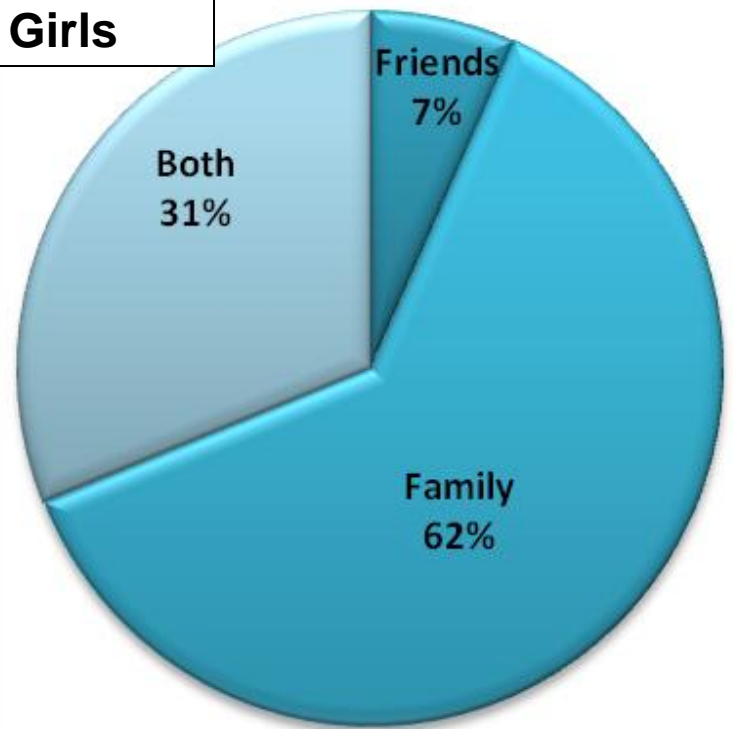
Results: Bet money with whom?
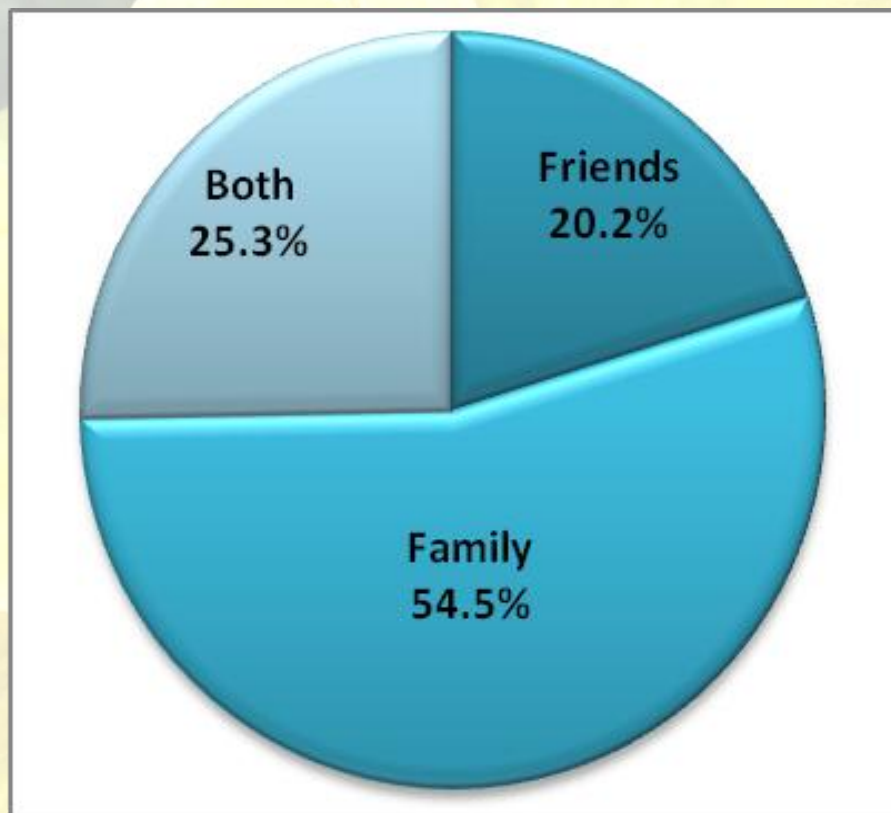
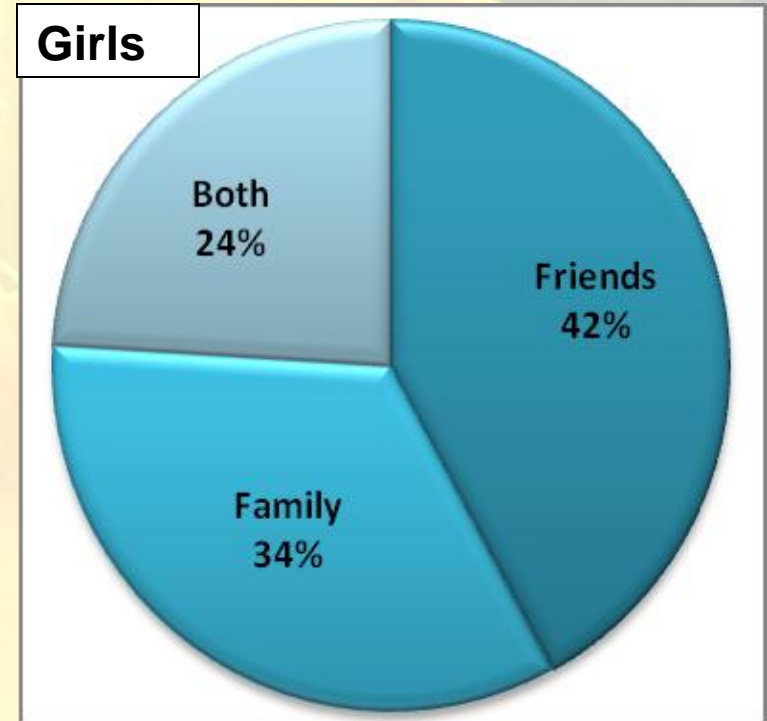**27% bet money (n=234)**

Results: Played Housie for money

Results: Played Housie not for money

Boys

Both 41%
Friends 31%
Family 28%

Girls

Both 24%
Friends 42%
Family 34%
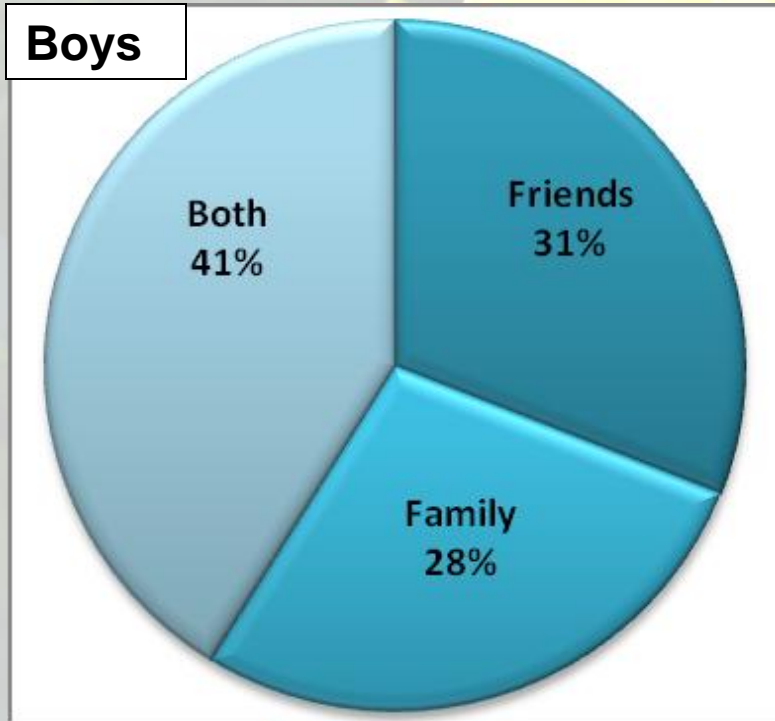
Results: Potential risk factors for gambling

- Gang involvement (OR 2.6)
  - Gang: "Any street club that carries a name, wears particular colours etc"
  - Other negative behaviours examined: Bullying, delinquency, substance misuse (NS)
- CBCL: Externalising (OR 1.9), Hyperactivity (OR 1.3)
- Paid work every day/almost every day (OR 2.4)
- Spend time with friends after school (OR 1.8)
- Attend after school activities (OR 1.9)

Results: Potential risk factor – Low parental monitoring

- **Parental monitoring – 1.5 x greater odds for gambling per unit decrease in parental monitoring**

Results: Potential protective factor – Cognitive ability

- **Similarities test score (recognising how two words are alike/similar) – 0.95 x lower odds for gambling per unit increase in score**

Conclusion

- **Some potential risk and protective factors identified**

- **Plan to continue longitudinal follow-up of mothers and fathers**

- **Plan to follow the children to see how gambling behaviours change with time and how they are associated with parental gambling and other familial, social, health and environmental factors**