

# Boyfriends, fuckbuddies and casual sex: The structure of sexual partnering among gay and bisexual men in NZ

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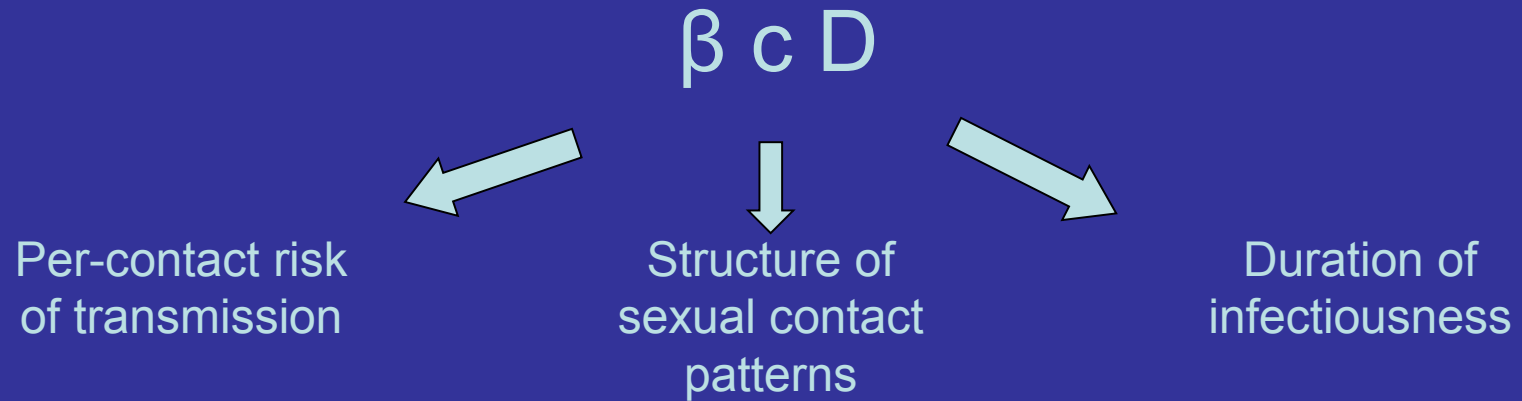
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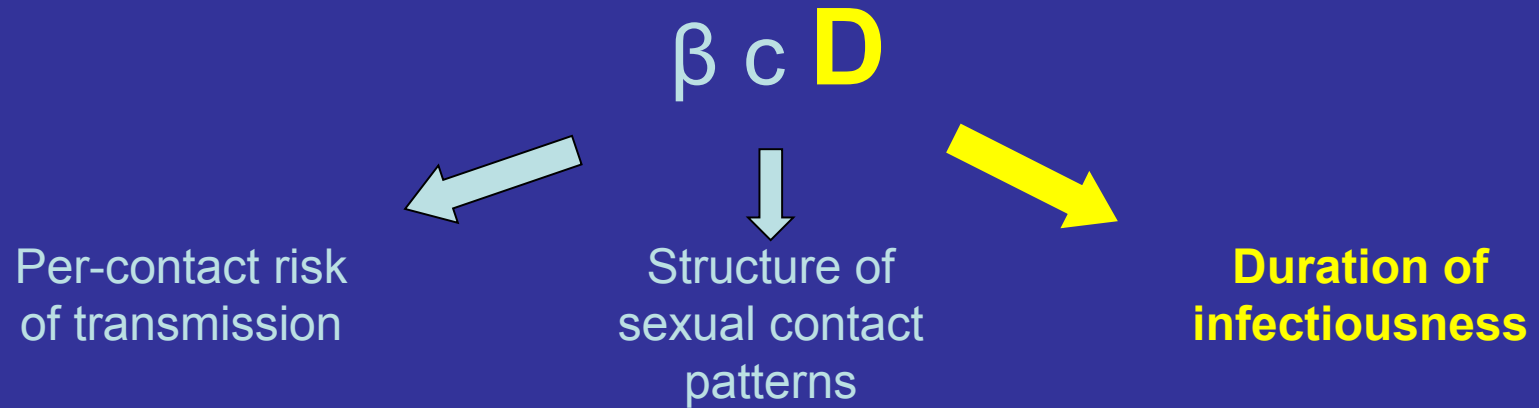
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University of Otago

New Zealand Sexual Health Society Conference, Dunedin, Aug 28-30 2008

# Reproductive rate of infection



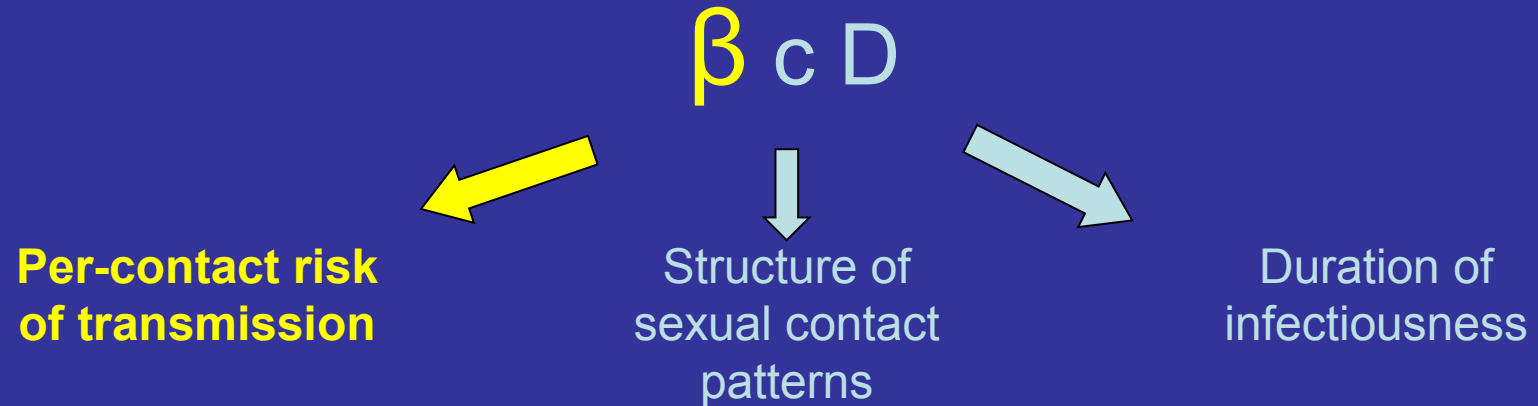
# Reproductive rate of infection



**HIV**

**~ 10 years**

# Reproductive rate of infection

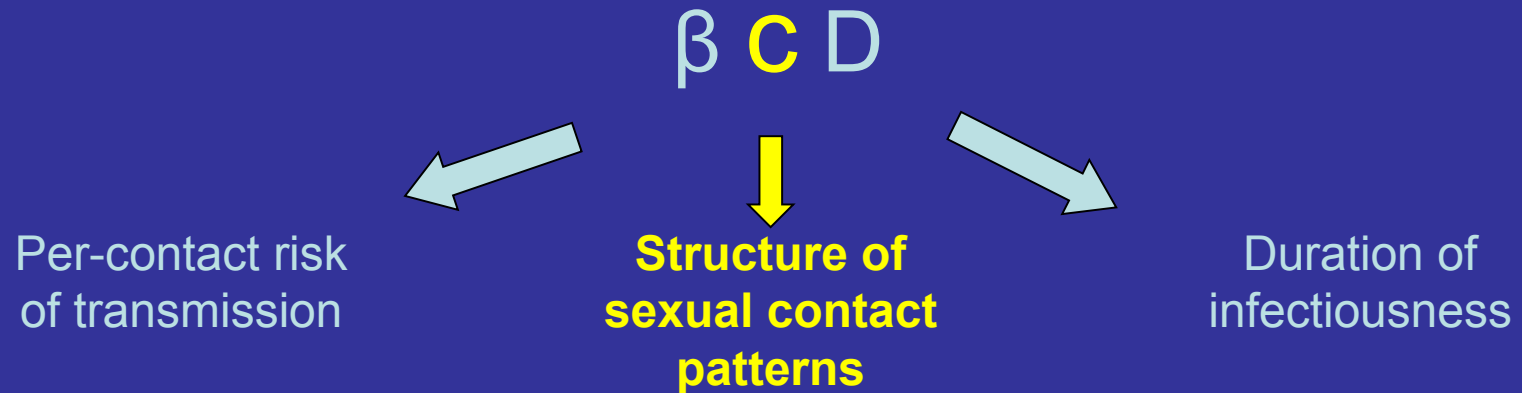


**HIV** 1 in 1000 ♀♂

1 in 200 ♂♂

~ 10 years

# Reproductive rate of infection



**HIV** 1 in 1000 ♀♂

1 in 200 ♂♂

**Dense**

**~ 10 years**

# We have an HIV epidemic among MSM in NZ

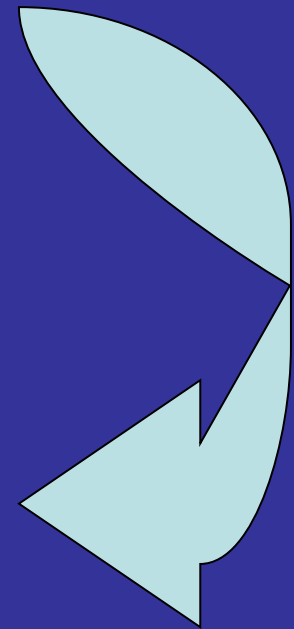
52 in 2004

66 in 2005

54 in 2006

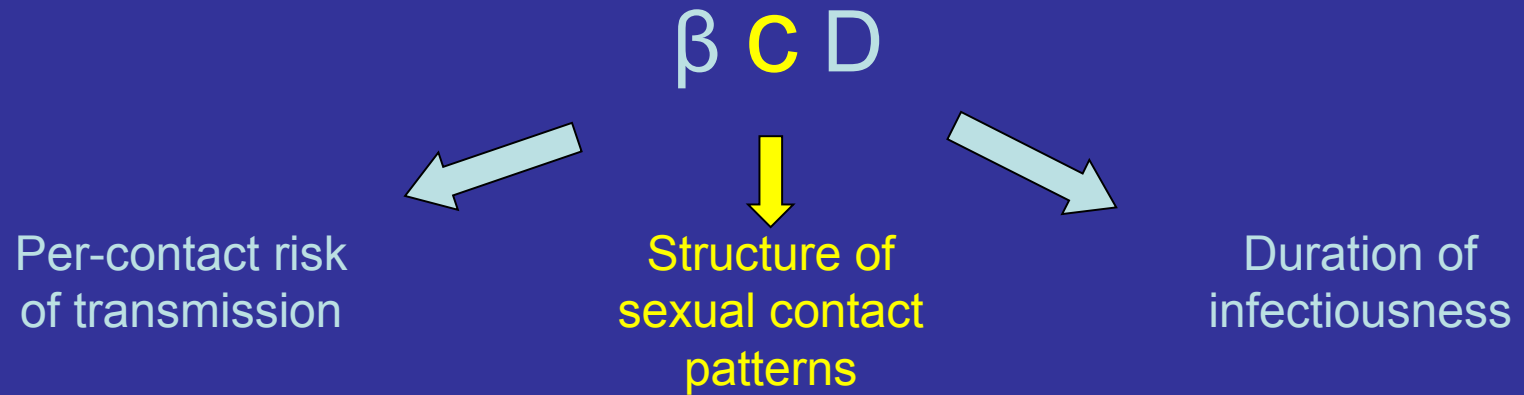
54 in 2007

MSM account for ~ **79%** of all locally-acquired HIV diagnoses in NZ



## So what do we know about partnering?

# What to measure?



# What to measure?

$\beta$  **C** D

Per-contact risk  
of transmission

Structure of  
sexual contact  
patterns

Duration of  
infectiousness

✓ GAPSS/GOSS 2006

**Rate of sexual partner change**



# What to measure?

$\beta$  **C** D

Per-contact risk  
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Structure of  
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**Concurrency**

✓ GAPSS/GOSS 2006

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**Duration of partnerships**

✓ GAPSS/GOSS 2006

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# What to measure?

$\beta$   $C$   $D$

Per-contact risk  
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Duration of  
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Rate of sexual partner change

Concurrency

Duration of partnerships

Sexual mixing preferences **GAPSS/GOSS 2008**

✓ GAPSS/GOSS 2006

✓ GAPSS/GOSS 2006

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# What to measure?

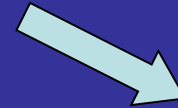
$\beta$  **C** D



Per-contact risk  
of transmission



Structure of  
sexual contact  
patterns



Duration of  
infectiousness



**Rate of sexual partner change**

**Concurrency**

**Duration of partnerships**

Mixing preferences

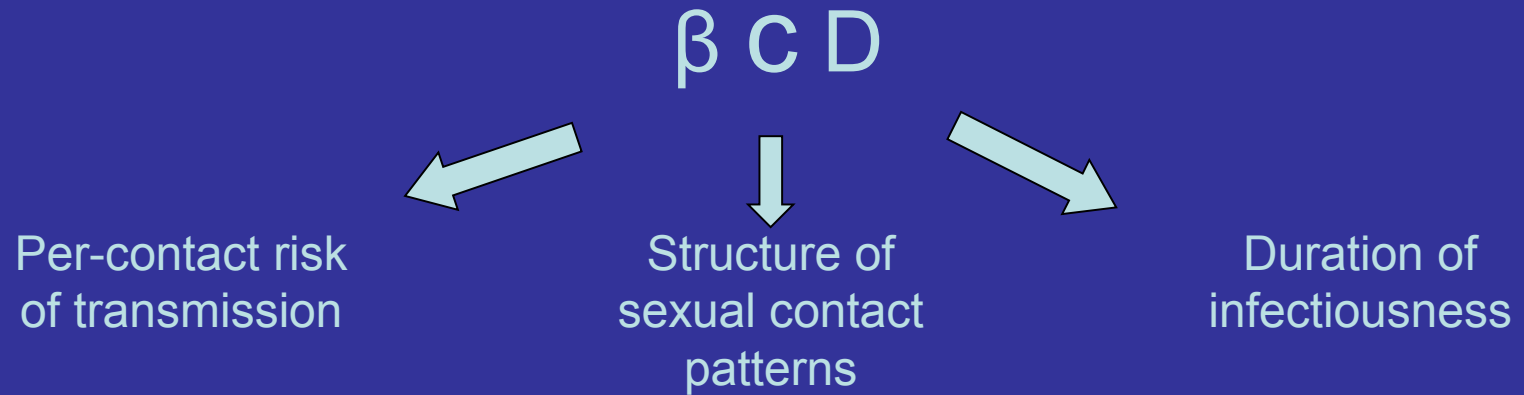


✓ GAPSS/GOSS 2006

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✓ GAPSS/GOSS 2006

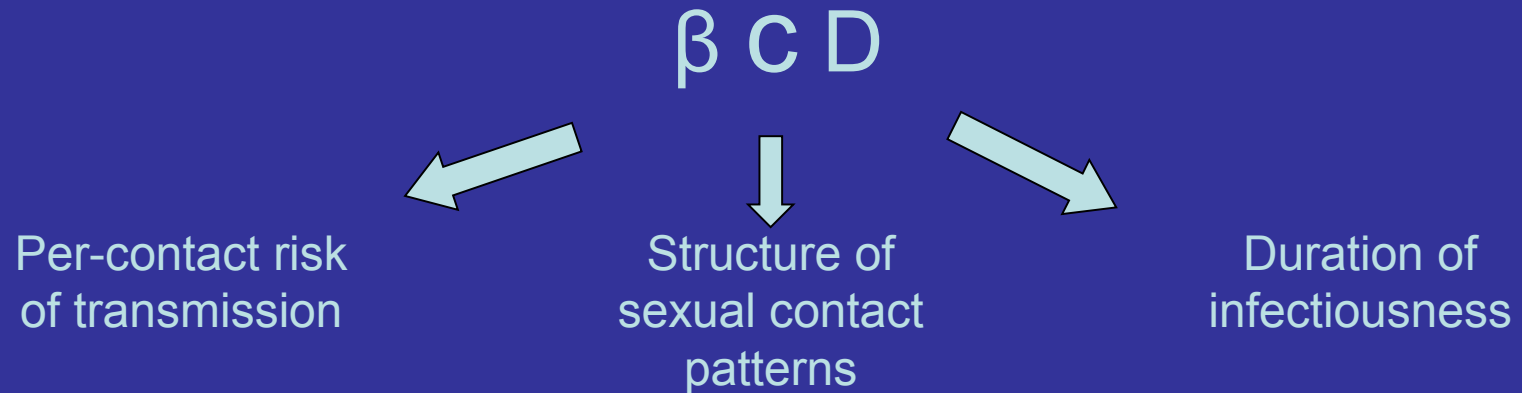
# Reproductive rate of infection



**HIV** 1 in 1000 ♀♂

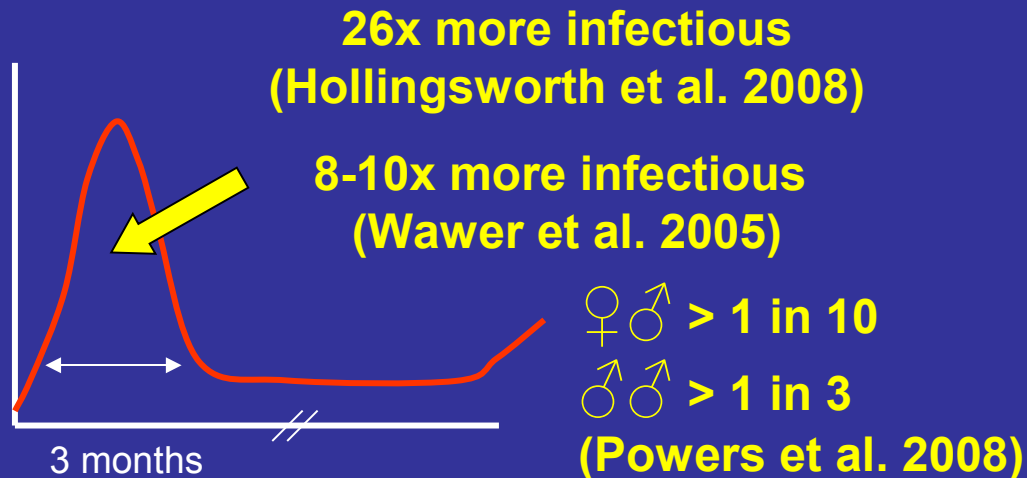
1 in 200 ♂♂

# Reproductive rate of infection



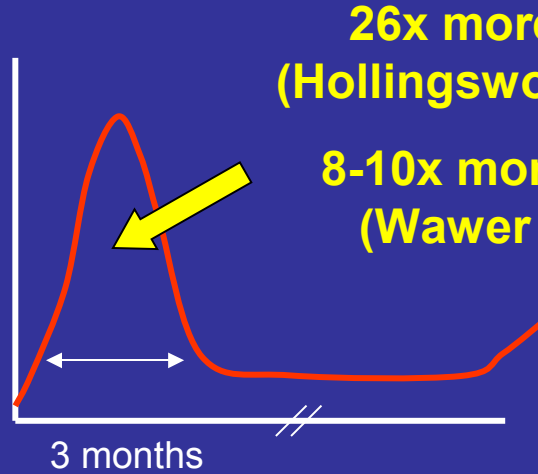
## Primary acute infection

HIV



# Primary acute infection

HIV



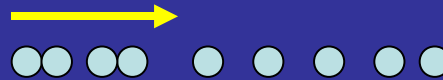
26x more infectious  
(Hollingsworth et al. 2008)

8-10x more infectious  
(Wawer et al. 2005)

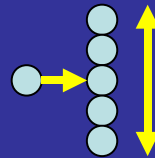
♀♂ > 1 in 10

♂♂ > 1 in 3

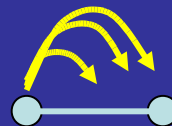
(Powers et al. 2008)



High rate of partner change



Simultaneous partnerships



Longer partnership length

# Study data

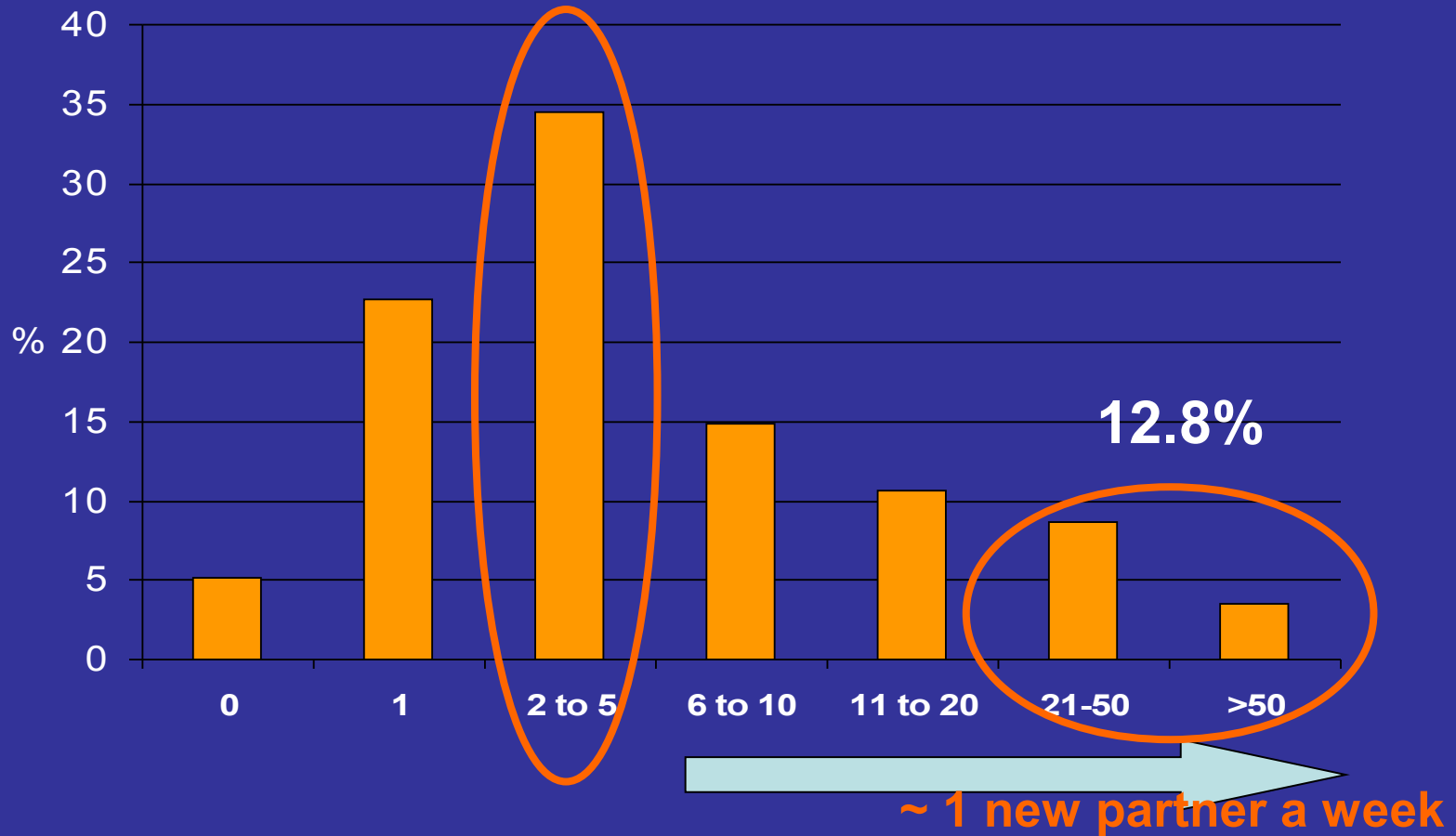
- Gay Auckland Periodic Sex Survey (GAPSS)
- Gay men's Online Sex Survey (GOSS)
- Collaboration between NZAF & AEG
- 2006 Auckland data (n=1875)
- Fair day, gay bars, gay saunas
- Anonymous self-completed 5-12 minutes
- Sexual partnering <6 months and at time of survey



# 1. How many male sexual partners?



# Partner numbers <6m



# Partner numbers by site

Site	Number of partners <6 months					
	0	1	2-5	6-10	11-20	>20
Big Gay Out	4.4	33.5	31.3	13.0	8.4	9.4
Gay bars	2.7	20.6	37.7	9.6	15.1	14.4
Gay saunas	3.7	5.6	32.6	22.8	15.8	19.5
Online dating	7.2	14.8	38.7	15.8	10.8	12.8

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Gay saunas	3.7	5.6	32.6	22.8	15.8	19.5
Online dating	7.2	14.8	38.7	15.8	10.8	12.8

Variation in tail  
(p=0.001)

# Partner numbers by age

Age	Number of partners <6 months					
	0	1	2-5	6-10	11-20	>20
16-29	6.6	21.5	41.2	12.8	9.3	8.7
30-44	3.5	24.6	31.2	15.8	11.0	13.9
45+	5.6	19.8	29.1	16.9	12.4	16.1

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30-44	3.5	24.6	31.2	15.8	11.0	13.9
45+	5.6	19.8	29.1	16.9	12.4	16.1

High partner change among older MSM (p<0.001)



Take-out:

Many MSM have high partner turnover; some have very high

## 2. Recent sexual histories



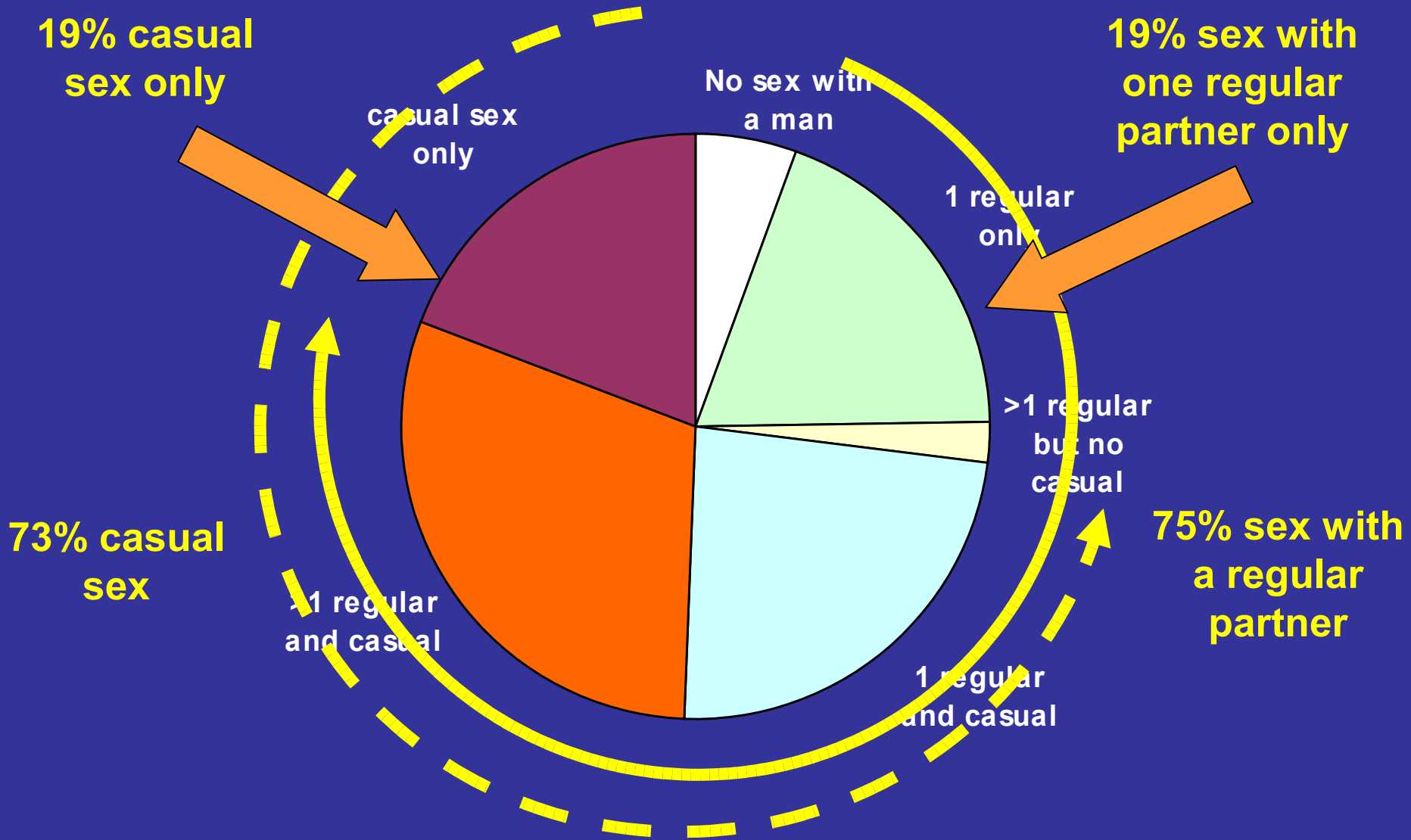
## <6 months...

- Casual sex partner (sex 1-3 times with same man)
- Regular sex partner (sex 4+ times with same man)



- Number of regular partners <6 mths

# Partnering history <6m



Take-out:  
Partnering histories complex for  
majority of MSM

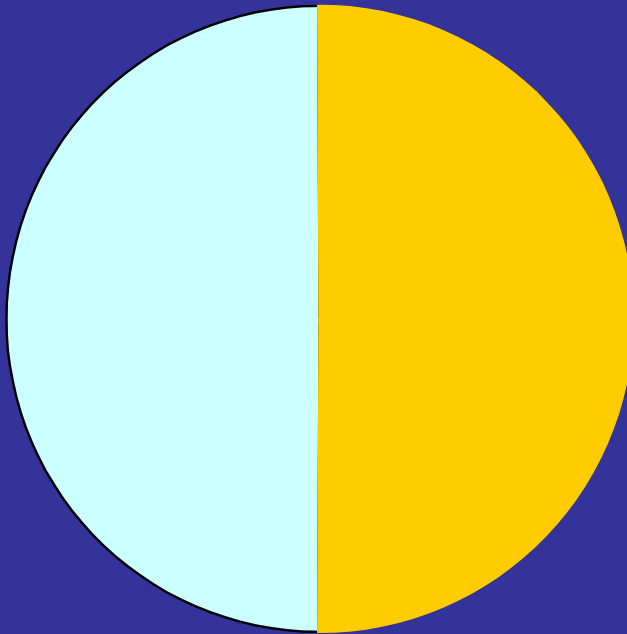
### 3. Overlapping partnerships?



# Concurrent partnering <6m

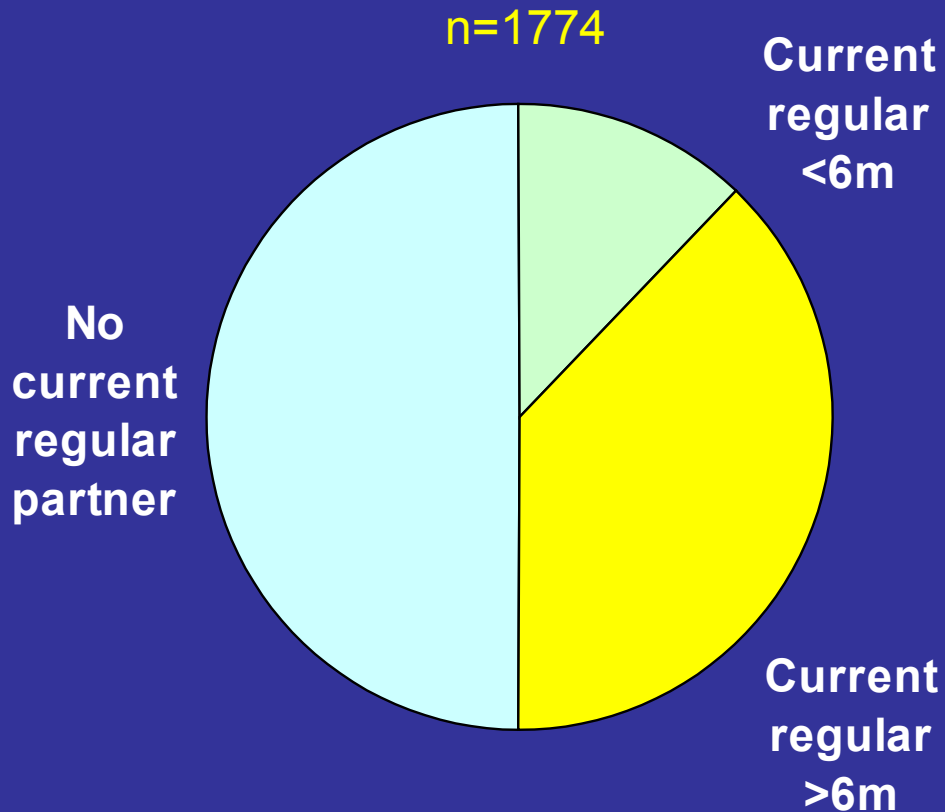
n=1774

No  
current  
regular  
partner



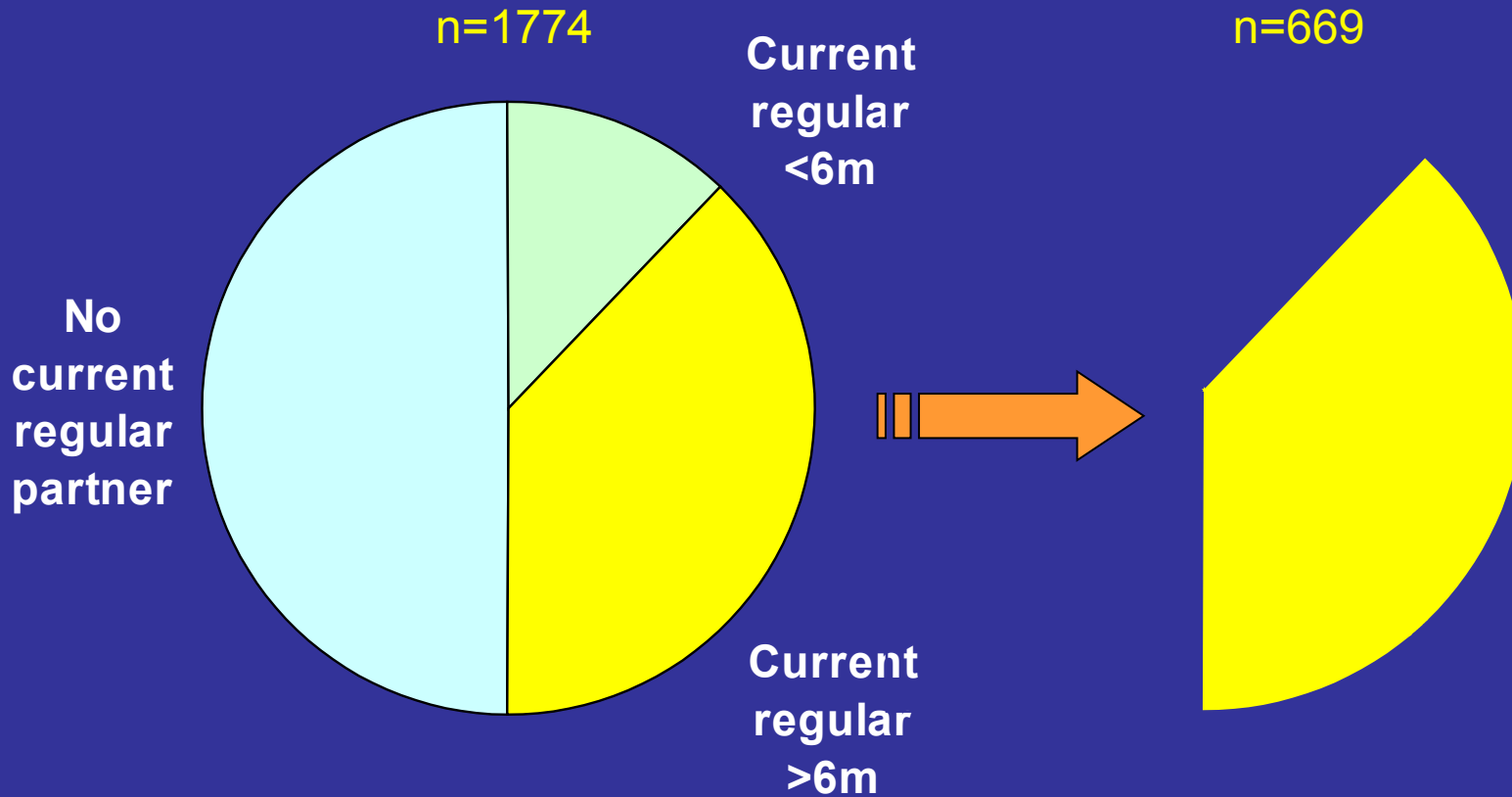
Current  
regular  
partner

# Concurrent partnering <6m

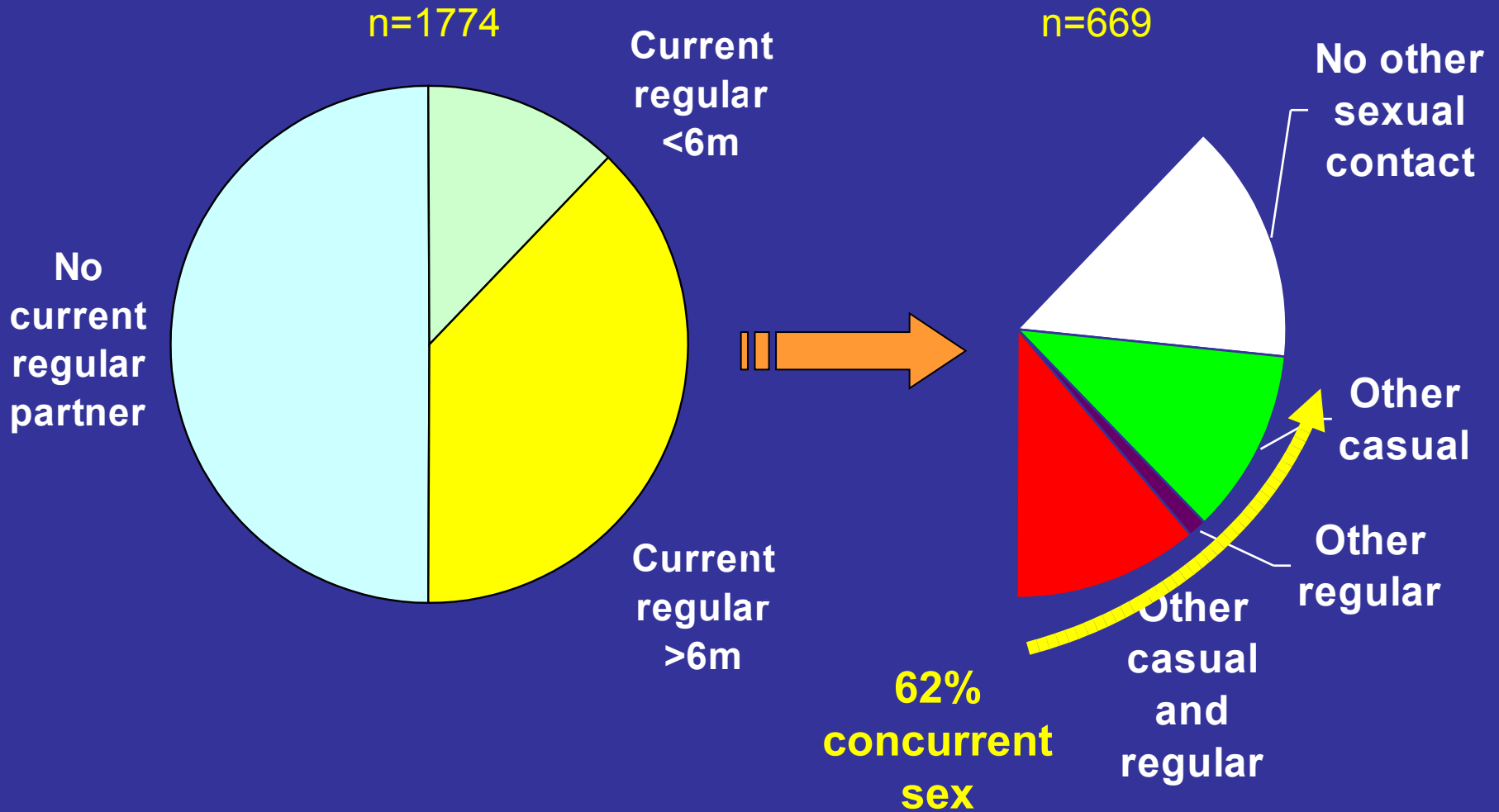




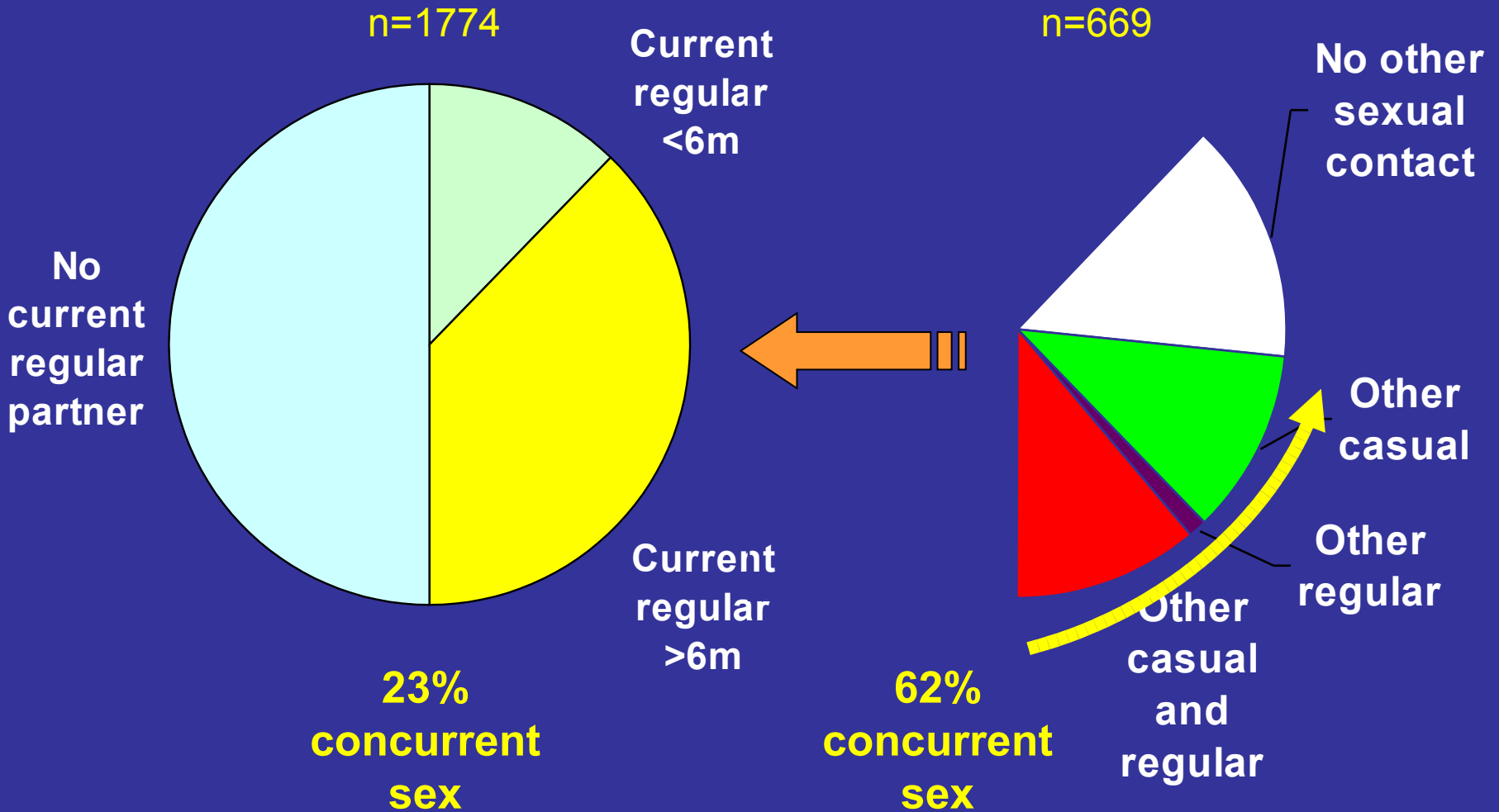
# Concurrent partnering <6m



# Concurrent partnering <6m



# Concurrent partnering <6m



## Take-out:


Over half of MSM currently in long-term regular relationships have sex with other men

## 4. Types of partnerships



# Casual vs Fuckbuddy vs Boyfriend

Regular partner  
at time of  
survey?



Casual sex only

**Casual**

n=339

**vs**

“Fuckbuddy, friend I  
have sex with”

**Fuckbuddy**

n=269

**(30%)**

**vs**

“Boyfriend, long-  
term lover, life  
partner, civil union  
partner”

**Boyfriend**

n=614

**(70%)**

# Casual vs Fuckbuddy vs Boyfriend

## *Sexual behaviour*

	Casual only %	Fuckbuddy %	Boyfriend %
<b>Recruited online</b>	42.8	46.8	23.1
<b>&gt;20 sexual partners &lt;6m</b>	8.0	22.3	9.0
<b>Anal sex</b>	68.1	82.9	82.7
<b>Any unprotected anal sex*</b>	40.3	42.6	76.2
<b>Low condom use*</b>	6.9	24.6	59.0

\* Of those having anal sex

# Casual vs Fuckbuddy vs Boyfriend

## *Sexual behaviour*

	Casual only	Fuckbuddy	Boyfriend
	%	%	%
<b>Recruited online</b>	42.8	46.8	23.1
<i>OR</i>			<i>0.3 (0.3-0.5)</i>
<b>&gt;20 sexual partners &lt;6m</b>	8.0	22.3	9.0
<i>OR</i>	<i>0.3 (0.2-0.5)</i>		<i>0.3 (0.2-0.5)</i>
<b>Anal sex</b>	68.1	82.9	82.7
<i>OR</i>	<i>0.4 (0.3-0.7)</i>		
<b>Any unprotected anal sex</b>	40.3	42.6	76.2
<i>OR</i>			<i>4.3 (3.1-6.0)</i>
<b>Low condom use</b>	6.9	24.6	59.0
<i>OR</i>	<i>0.2 (0.1-0.4)</i>		<i>4.4 (3.1-6.3)</i>



# Casual vs Fuckbuddy vs Boyfriend

## *Testing*

	<b>Casual only</b>	<b>Fuckbuddy</b>	<b>Boyfriend</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>Ever tested for HIV</b>	70.8	71.4	76.0
<b>Tested for HIV &lt;12m</b>	35.5	47.7	40.1
<b>Sexual health checkup &lt;12</b>	34.0	60.0	42.7
<b>STIs &lt;12m</b>	6.7	9.2	7.7

# Casual vs Fuckbuddy vs Boyfriend

## Testing

	Casual only %	Fuckbuddy %	Boyfriend %
<b>Ever tested for HIV</b>	70.8	71.4	76.0
<b>Tested for HIV &lt;12m</b>	35.5	47.7	40.1
<i>OR</i>	<i>0.6 (0.4-0.8)</i>		<i>0.7 (0.6-0.9)</i>
<b>Sexual health checkup &lt;12</b>	34.0	60.0	42.7
<i>OR</i>	<i>0.3 (0.3-0.5)</i>		<i>0.5 (0.4-0.7)</i>
<b>STIs &lt;12m</b>	6.7	9.2	7.7

# Casual vs Fuckbuddy vs Boyfriend

## *Partnering*

	Casual only	Fuckbuddy %	Boyfriend %
<b>Live together</b>		6.0	71.2
<b>Been in relationship &lt;6m</b>		42.8	16.1
<b>Reported that partner had tested –ve</b>		44.7	73.3
<b>Concurrent sex &lt;6m*</b>		92.8	52.9

\* Of those with partners >6m duration

# Casual vs Fuckbuddy vs Boyfriend

## *Partnering*

	<b>Fuckbuddy</b> %	<b>Boyfriend</b> %
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# Casual vs Fuckbuddy vs Boyfriend

## *Partnering*

	<b>Fuckbuddy</b>	<b>Boyfriend</b>
	<b>%</b>	<b>%</b>
<b>Live together</b>	6.0	71.2
<i>OR</i>		39 (23-66.5)
<b>Been in relationship &lt;6m</b>	42.8	16.1
<i>OR</i>		0.3 (0.2-0.4)
<b>Reported that partner had tested -ve</b>	44.7	73.3
<i>OR</i>		3.4 (2.5-4.6)
<b>Concurrent sex &lt;6m*</b>	92.8	52.9
<i>OR</i>		0.1 (0.1-0.2)

\* Of those with partners >6m duration

Take-out:

Fuckbuddies are a unique  
partnering context presenting  
challenges to prevention

# Conclusion 1

- Volume of partnering by MSM acknowledged.
  - Rapid partner change **normative** in MSM communities
  - Makes HIV spread at a population level **always viable** in absence of condom use

# Conclusion 2

- Understand the implications of complex partnering patterns.
  - **HIV control**: Concurrency accelerates growth rate of epidemic
  - **Prevention**: Universal protection vs partner-specific approaches
  - **Primary care**: GPs more responsive & MSM more forthcoming



# Conclusion 3

- Fuckbuddy partnerships different partnering context
  - sit “in between” casual and boyfriend-type partnerships.
  - Do protective effects of ↑ condom use in context of regular sexual activity and ↑ testing offset the ↑ concurrency, ↑ anal sex and ↓ knowledge of partner’s status, or not?

# Limitations

- Generaliseability
- Delineation of casual/regular arbitrary
- Concurrency data represents an underestimate
- No mixing data
- Not the number or concurrency of sexual partners per se that is important in HIV spread, but the number and nature of **unprotected anal sex** partnerships.

# Acknowledgements

- 1875 respondents and recruitment team
- Co-authors
- Ministry of Health (funding)
- NZAF (funding and support)
- AEG (funding and support)

Photos from Brickell, C. (2008) *Mates and Lovers: A History of Gay New Zealand*. Random House: Auckland.

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