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Australian Collaboration
for Chlamydia Enhanced
Sentinel Surveillance

Family Planning Clinic Network Report

An update of chlamydia testing and positivity

Burnet Institute

July 2012

2008-2010

THE AUSTRALIAN COLLABORATION FOR CHLAMYDIA ENHANCED SENTINEL SURVEILLANCE (ACCESS)

Family Planning Clinic Network Report An update of chlamydia testing and positivity: 2008-2010

This annual report presents ACCESS chlamydia testing and test results in the Family Planning Clinic (FPC) Network of the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) system for January-December 2010 and reports on trends from 2008 to 2010. The data in this report remains governed by the ACCESS collaboration and is not for general dissemination.

Funding

ACCESS was originally funded by the Australian Government Department of Health and Ageing (DoHA) through the Chlamydia Targeted Grants Program as a pilot project from 2007 to 2010. Since 2010, ACCESS has continued operation through cooperation between Burnet Institute and the good will of participating Family Planning Clinics.

Governance and ethics

ACCESS is overseen by a national coordinating committee comprising of representatives from:

- Centre for Population Health, Burnet Institute, Melbourne, VIC
- The Kirby Institute, UNSW, Sydney, NSW
- National Serology Reference Laboratory Australia (NRL), Melbourne, VIC

The ACCESS FPC Network is governed by the FPC Network Steering Committee comprising representatives from state and territory-based family planning organisations under the Burnet Institute and the Kirby Institute to oversee the development and operation of the Network.

Approval for the FPC Network was gained from Human Research Ethics Committees (HREC) located at the Royal Australian College of General Practitioners, Family Planning NSW and Family Planning Victoria. Other FPCs endorsed the approvals given by the NSW and Victorian FPC HREC.

***Prepared by the Centre for Population Health, Burnet Institute
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Preface

ACCESS is an enhanced sentinel surveillance system designed to collect systematic data on uptake and outcome of chlamydia testing in clinical settings. First evaluated in 2010¹, in its current arrangement, ACCESS involves five networks made up of general practices, sexual health services, family planning clinics, and Aboriginal community controlled health services, and laboratories. Each network monitors chlamydia testing uptake and positivity in priority populations at risk of chlamydia: young people aged under 25 years, gay men and other men who have sex with men, Aboriginal and Torres Strait Islander peoples, and sex workers.²

Acknowledgements

We would like to acknowledge all participating clinics in the Family Planning Clinic Network and the Family Planning Clinic Network Steering Committee for their ongoing support of ACCESS.

Family Planning Clinic Network Steering Committee Membership

- Dr Caroline Harvey (chair), Medical Director, Family Planning Queensland, Fortitude Valley, Queensland
- Ms Robyn Wardle, Team Leader FP Welfare Association, Coconut Grove, Darwin, NT
- Dr Lynne Jordan, CEO, and Dr Kathy McNamee, Family Planning Victoria, Box Hill, Victoria
- Dr Anne Stephens, Medical Officer, Sexual Health information networking & education SA (SHine SA), Woodville SA
- Dr Deborah Bateson, Medical Director, Family Planning NSW, Ashfield, NSW
- A/Prof Margaret Hellard, Director, Centre for Population Health Research, Burnet Institute, Melbourne, VIC
- Dr Rebecca Guy, Senior Lecturer, NHMRC Post-doctoral Fellow, The Kirby Institute, University of New South Wales, Sydney, NSW
- Professor Basil Donovan, Head, Sexual Health Program, The Kirby Institute, University of New South Wales, Sydney, NSW
- Ms Caroline van Gemert, ACCESS Coordinator, Centre for Population Health, Burnet Institute, VIC
- Ms Emma Weaver, FPC Network Coordinator, Centre for Population Health, Burnet Institute, VIC

¹Guy, R., F. Kong, et al. A new national chlamydia surveillance system in Australia: Evaluation of the first stage implementation. *Communicable Disease Intelligence* 2010; 34(3): 319-328.

²Department of Health and Ageing. The Second National Sexually Transmissible Infections (STIs) Strategy 2010-2013. Canberra: Commonwealth of Australia 2010.

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KEY FINDINGS FOR FAMILY PLANNING CLINIC NETWORK, 2010

Report period:

- January-December 2010

Site participation:

- Seven Family Planning Clinics (FPCs) participated in ACCESS in 2010 and provided consultation and chlamydia testing data on attending 16-29 year old individuals. FPC Network results are based on seven sites for testing and six sites for positivity rates.

Patient characteristics:

- In 2010 a total of 10,338 individuals aged 16-29 years attended participating FPCs (94% female).
- Of individuals aged 16-29 years old attending FPCs in 2010, 74% were aged 16-24 years - the target population of the FPC Network.

Chlamydia testing:

- The overall chlamydia testing rate among 16-29 year olds was 44% among females and 59% among males.
- The testing rate was higher among 16-19 year old females (48%) than 20-24 year olds (46%) and 25-29 year olds (35%).

Chlamydia positivity:

- The overall positivity rate among 16-29 year olds was 8.9% among females and 27% among males.
- Among females, the positivity rate was highest in 16-19 year olds (14.8%) and decreased with each subsequent age group (8.1% among 20-24 years olds and 3.7% among 25-29 year olds).

FAMILY PLANNING CLINIC NETWORK REPORT

Family Planning Clinics (FPCs) are included as an ACCESS network because they see high risk, sexually active young people, particularly women. The target population in the FPC Network are young heterosexuals aged 16 to 29 years with a particular focus on women aged 16 to 24 years, given they account for the highest proportion of chlamydia notifications in Australia.³

1 OBJECTIVES

In this report, we provide an update of chlamydia testing and positivity in the FPC Network by age group and sex in 2010 and report on trends between 2008 and 2010.

2 METHODS

2.1 Participating clinics, 2010

At the end of 2011 there were seven participating clinics that provided retrospective data for 2010 (Table 1).

Table 1: Participating FPC sites providing data for January-December 2010

Family Planning Organisation	Site name (city)	State
Sexual Health and Family Planning ACT	SHFPACT (Canberra)	ACT
Family Planning NSW	Hunter (Newcastle)	NSW
Family Planning NT	Darwin clinic (Coconut Grove, Darwin)	NT
Family Planning Queensland	Toowoomba clinic (Toowoomba)	QLD
SHine SA	East/West team (Woodville)	SA
Family Planning Tasmania	Hobart clinic (Glenorchy, Hobart)	TAS
Family Planning Victoria	Action Centre (Melbourne)	VIC

2.2 Participating FPC sites

The seven participating FPCs comprising the FPC Network in 2010 are located in both metropolitan and regional areas and represent all jurisdictions with the exception of Western Australia (Figure 1).

³ Department of Health and Ageing. The Second National Sexually Transmissible Infections (STIs) Strategy 2010-2013. Canberra: Commonwealth of Australia 2010.

Figure 1: Locations of participating clinics in the FPC Network, 2010



2.3 Data collection, extraction and management

Data on all attending 16-29 year olds were collated from FPCs participating in ACCESS during the study period: 1 January 2008-31 December 2010. Non-identifiable routine attendance data (date of service, doctor name and provider number, clinic name, year of birth, sex and Aboriginal and/or Torres Strait Islander status) and chlamydia testing data (chlamydia test request and chlamydia test result) were retrospectively extracted from electronic patient records using the electronic data collection software tool, GRHANITE™.⁴

2.4 Data analysis

De-identified line listed data were analysed to determine the following rates according to age group and sex for 2010:

- **Chlamydia testing rates** (testing rates) as the proportion of attending individuals with at least one chlamydia test request in a 12 month period; and
- **Chlamydia positivity rates** (positivity) as the proportion of individuals tested, returning a positive result at any test within a 12 month period. Positivity rates are based on for whom a result is known.

In 2010, testing data was available from seven sites and positivity data from six sites. For analysis of trends between 2008 and 2010, testing and positivity rates are based on four sites with complete data for all years.

⁴ Boyle D, Kong F. A systematic mechanism for the collection and interpretation of display format pathology test results from Australian primary care records. *Electron J Health Inform* 2011;6:e18.

For two clinics, the chlamydia testing data extracted from the clinic PMS via the GRHANITE software was linked to pathology results from the corresponding laboratory, allowing validation of test requests collected through GRHANITE. For these two clinics 97.2% and 92.6% of laboratory chlamydia tests were record-linked to test requests extracted from the clinic PMS, demonstrating high sensitivity of the extraction interfaces.

3 RESULTS

3.1 Individuals attending

Of 10,338 individuals attending the FPC Network in 2010, 94% were female. In total 74% were aged between 16-24 years old, the age of particular interest to the FPC Network.

3.2 Testing and positivity rates, 2010

Chlamydia testing rates

Testing rates by sex and age group for 2010 are presented in Table 2.

Females: The testing rate among females aged 16-29 years old was 43.6% in 2010 (figure 2). The testing rate was higher among 16-19 year old females (47.9%) than 20-24 year olds (45.7%) and 25-29 year olds (35.1%).

Males: The testing rate among males aged 16-29 years old was 59.1% in 2010 (figure 3). The testing rate was higher among 20-24 year old males (70.6%) than 25-29 year olds (56.8%) and 16-19 year olds (47.3%).

Chlamydia positivity rates

Positivity rates by sex and age group for 2010 are presented in Table 2. Chlamydia positivity rates are based on where a result is known. In 2010, 98.1% of individuals with a test request had a known result.

Females: The positivity rate among 16-29 year old females was 68.9% in 2010 (figure 2). Positivity rates were higher among 16-19 year old females (14.8 %) compared to females aged 20-24 years (8.1%) and 25-29 years (3.7%).

Males: The positivity rate among 16-29 year old males was 27% in 2010 (figure 3), which is more than three times greater than the positivity in females (6.7%). Positivity rates were lowest among 25-29 year old males (21.6%).

Figure 2: FPC Network chlamydia testing and positivity rates among females, 2010

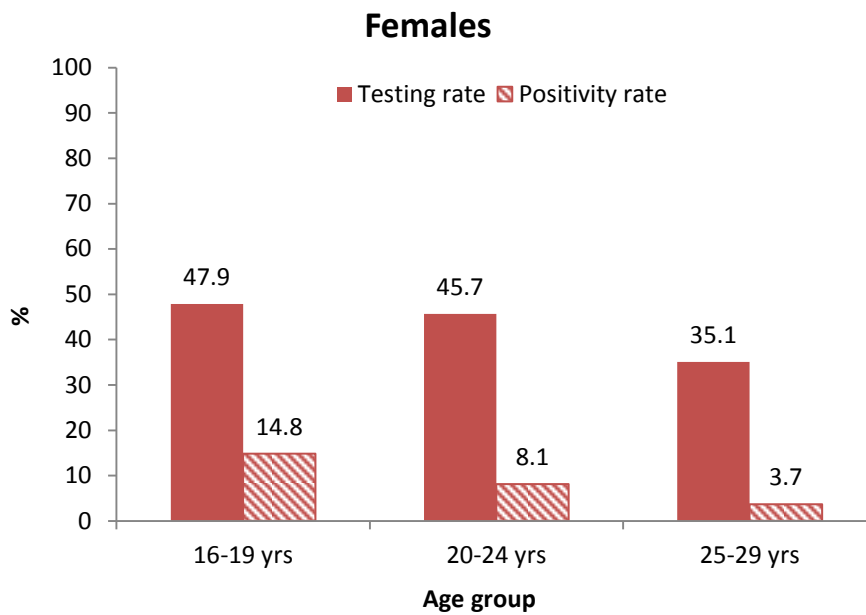


Figure 3: FPC Network chlamydia testing and positivity rates among males, 2010

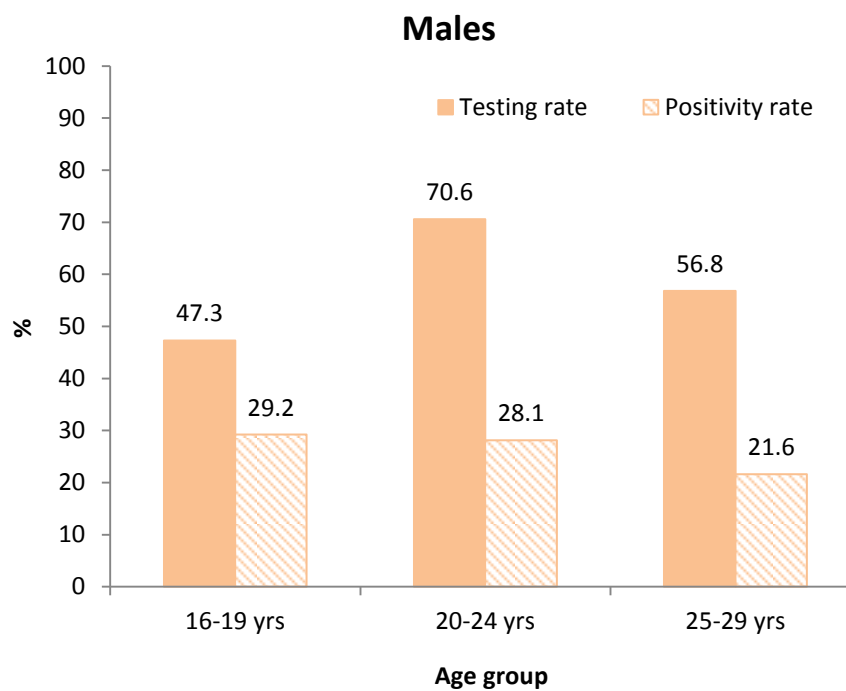


Table 2: FPC Network chlamydia testing and positivity rates by sex and age group, 2010. Based on seven FPC sites for testing and six sites for positivity.

		2010				
	Age group	Individuals	Chlamydia testing rate*		Chlamydia positivity rate**	
	Years	n	n	%	n	%
Overall	all (16-29)	10,338	4,596	44.5	327	9.8
Females	16-19	3,123	1,497	47.9	142	14.8
	20-24	4,017	1,837	45.7	105	8.1
	25-29	2,616	918	35.1	33	3.7
	all (16-29)	9,756	4,252	43.6	280	8.9
Males	16-19	243	115	47.3	14	29.2
	20-24	265	187	70.6	25	28.1
	25-29	74	42	56.8	8	21.6
	all (16-29)	582	344	59.1	47	27

*Chlamydia testing rates (testing rates) as the proportion of attending individuals with at least one chlamydia test request in a 12-month period.

**Chlamydia positivity rates (positivity) as the proportion of individuals tested, returning a positive result at any test within a 12 month period.

Chlamydia testing and positivity rates by site

Testing and positivity rates among females by FPC site for 2010 are presented in Figure 4. Table 3 presents testing and positivity rates for both females and males by site for 2010.

Testing rate: Between sites, testing rates among females ranged from 30.6% to 54.6% (see figure 4 and table 3); testing rates among males ranged from 26.6% to 88.9% (table 3).

Positivity rate: Between sites, positivity rate among females ranged from 4.2% to 30.6% (see figure 4 and table 3); positivity rate among males ranged from 23.1% to 50.5%.

Figure 4: Chlamydia testing and positivity rates among females by FPC site, 2010



Table 3: Chlamydia testing and positivity rate by FPC site, 2010

	Females					Males						
	Individuals		Chlamydia testing rate		Chlamydia positivity rate		Individuals		Chlamydia testing rate		Chlamydia positivity rate	
	n		n	%	n	%	n		n	%	n	%
Site 1	1,711		681	39.8	28	4.2	192		51	26.6	5	10.2
Site 2	2,200		1,025	46.6	126	12.4	82		69	84.2	25	37.3
Site 3	1,358		500	36.8	46	9.4	45		25	55.6	7	28.0
Site 4	985		362	36.8	37	11.0	18		16	88.9	3	23.1
Site 5	942		440	30.6	19	4.4	17		6	35.3	0	0
Site 6	638		195	54.6	24	12.4	26		14	53.9	7	50.0
Site 7	1,922		1,049	43.6	-	-	202		163	80.7	-	-
Overall	9,756		4252	43.6	280	8.9	582		344	59.1	47	27.0

NB. Chlamydia test outcomes (positivity rate) were not available at site 7 in 2010.

3.3 Testing and positivity trends, 2008-2010

Chlamydia testing rates

Testing rates by sex and age group from 2008 to 2010 are presented in Figure 5 and Table 4.

Females: The testing rate among females 16-29 years increased from 37.8% in 2008 to 40.9% in 2010.

Males: The testing rate among males 16-29 years remained consistent between 2008 and 2010 at 47%.

Chlamydia positivity rates

Positivity rates by sex and age group from 2008 to 2010 are presented in Figure 6 and Table 5.

Females: The positivity rate among females aged 16-19 years old increased substantially between 2008 and 2010 from 9.2% to 15.2%. A slight increase in positivity among females aged 20-24 years and 25-29 years between 2008 and 2010 was also observed.

Males: The positivity rate among 16-29 year old males increased between 2008 and 2010, from 20.5% to 28%.

Table 4: FPC Network chlamydia testing rates among 16-29 year old individuals, by sex and age group, 2008-2010. Based on four FPC sites.

	Age group Years	2008			2009			2010		
		Individuals n	Chlamydia testing rate*		Individuals n	Chlamydia testing rate*		Individuals n	Chlamydia testing rate*	
			n	%		n	%		n	%
Overall	All (16-29)	5,587	2,137	38.0	5,717	2,187	38.0	5,852	2,413	41.0
Females	16-19	1,393	551	39.6	1,423	549	38.6	1,651	720	43.6
	20-24	2,248	922	41.0	2,180	924	42.4	2,171	964	44.4
	25-29	1,674	535	32.0	1,812	571	31.5	1,712	579	33.8
	All (16-29)	5,315	2,008	37.8	5,415	2,044	37.8	5,534	2,263	40.9
Males	16-19	117	35	29.9	123	30	24.4	136	37	27.2
	20-24	107	67	62.6	119	81	68.1	128	78	60.9
	25-29	48	27	56.3	60	32	53.3	54	35	64.8
	All (16-29)	272	129	47.4	302	143	47.4	318	150	47.2

*Chlamydia testing rate is the proportion of attending individuals with at least one chlamydia test request in a 12-month period.

Figure 5: FPC Network chlamydia testing rates by sex and age group, 2008-2010



Figure 6: FPC Network chlamydia positivity rates by sex and age group, 2008-2010

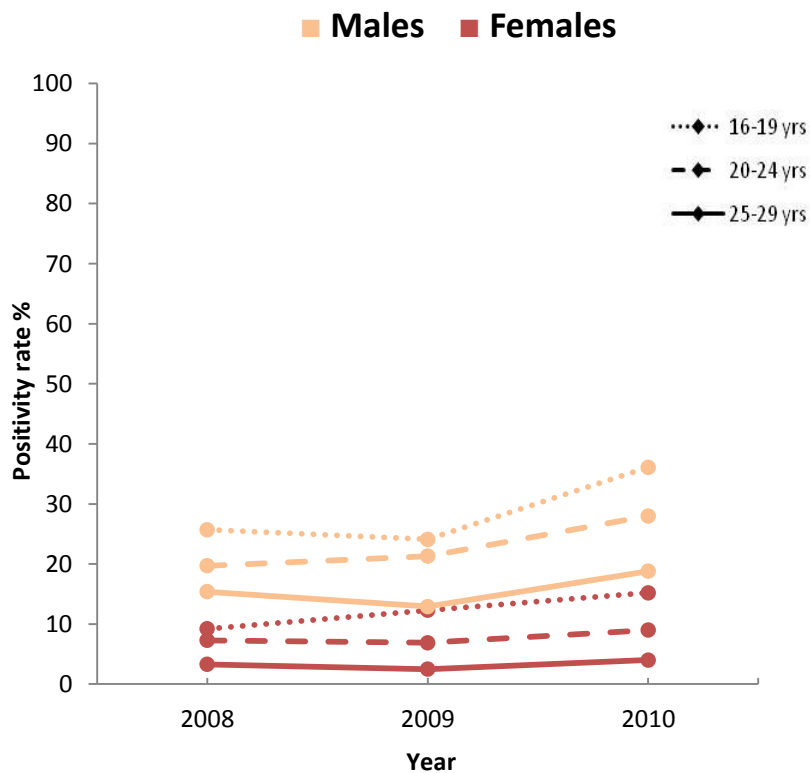


Table 5: FPC Network chlamydia positivity rates among 16-29 year old individuals, by sex and age group, 2008-2010. Based on four FPC sites.

Characteristics		2008			2009			2010		
		Individuals tested*	Chlamydia positivity rate**		Individuals tested*	Chlamydia positivity rate**		Individuals tested*	Chlamydia positivity** rate	
		n	n	%	n	n	%	n	n	%
Total	All (16-29)	2,093	159	8.0	2,160	172	8.0	2,362	255	11.0
Females	16-19	545	50	9.2	543	67	12.3	697	106	15.2
	20-24	899	66	7.3	914	63	6.9	951	86	9.0
	25-29	522	17	3.3	563	14	2.5	571	23	4.0
	All (16-29)	1,966	133	6.8	2,020	144	7.1	2,219	215	9.7
Males	16-19	35	9	25.7	29	7	24.1	36	13	36.1
	20-24	66	13	19.7	80	17	21.3	75	21	28.0
	25-29	26	4	15.4	31	4	12.9	32	6	18.8
	All (16-29)	127	26	20.5	140	28	20.0	143	40	28.0

* Individuals tested is the number of individuals tested for whom a test result is known.

** Chlamydia positivity rate is the proportion of individuals tested, returning a positive result at any test within a 12 month period.