
Literature review of cervical screening barriers for older women: Brief report

Prepared by:
Jenny Anderson

for:
PapScreen Victoria

March 2007



Centre for Behavioural Research in Cancer
Cancer Control Research Institute
The Cancer Council Victoria

Table of contents

	<i>Page</i>
Introduction	3
Background.....	3
Method	4
Findings	4
What are the barriers for women aged 60 to 69 years?	4
Demographic	4
Medical/ Health Beliefs.....	5
Psychosocial.....	5
Provider / Clinic	6
Differences in barriers between women over and under 60 years	6
Messages to test with older women	7
References.....	8
Appendix	9

Introduction

Background

Statistics provided from the Victorian Cervical Cytology Registry (VCCR) consistently show that women aged 60 to 69 are less likely to screen than women aged 30 to 59 (see Figure 1) (Victorian Cervical Cytology Registry, 2006). In addition, the incidence of squamous cell cervical cancer increases steadily after the age of 30 and peaks in the mid-70s age group (VCCR, 2006). As a consequence PapScreen Victoria has identified older women as a target group for 2007.

One of the strategies planned to reach this group of women with the PapScreen message is to run a combined media and invitation letters campaign. The advertisement to be used in the campaign will be a modified version of the *Don't Just Sit There* advertisement run in 2004 and 2005 across Victoria, and in 2006 across the Grampians DHS region. A series of focus groups will be run to learn more about the key barriers associated with cervical screening for older women and to test new tailored messages that could be included in the advertisement modification. This literature review will inform the development of these messages and possible messages to include in a personalised letter that will accompany the campaign.

The aim of this review is to examine the literature for evidence of cervical screening barriers for older women and provide recommendations about the most appropriate messages to test with women 60 years and over. If possible, an additional aim is to collect any available evidence for any differences between the barriers for women aged 18 to 59 years and those aged 60 and over.

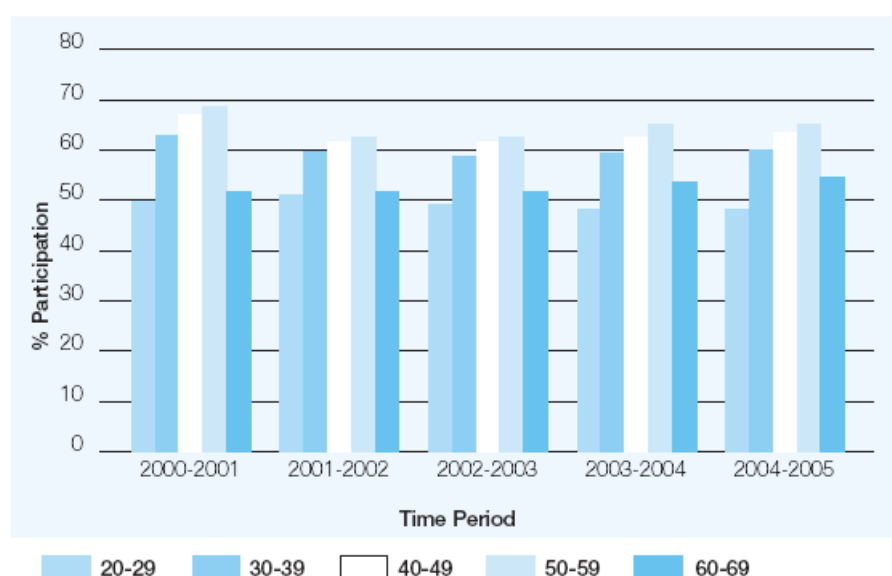


Figure 1: Estimated proportion of women with a cervix who have had at least one Pap test for two year periods from 2000 to 2005, by age group (source: VCCR, 2006, p.9).

Method

Two methods were used to search for relevant papers for this review. The first was to search through the list of research papers held at The Cancer Council Victoria that related to previous research conducted on cervical screening and barriers found for older women. The second was to conduct a literature search using electronic databases: PsychInfo and Medline. The following keywords were entered in different combinations consistently across the two databases: older, older women, age, elderly, barriers, predictors, Pap, cervical, and cervical screening. Papers were only included if they specifically mentioned Pap test barriers for older women (60 years and over) and used English-speaking participants not specifically identified with any CALD group. A total of eight relevant papers were identified using these methods.

A selection of four papers was also included on barriers for all ages to provide a comparison with the papers found on older women. Papers were selected if they were population-based surveys, included objective measure of screening or were focus group-based. A summary of findings is discussed below, with a summary table comparing the results of the papers using older women with those using women of all ages listed in the Appendix.

Findings

What are the barriers for women aged 60 to 69 years?

No study measured the barriers for this specific age group of women; however, the key findings for the studies that measured barriers for older women are discussed below. Therefore it should be noted that studies included in this section are those that sampled women aged 60 to 69, but also women of other ages. In general, these studies included women 50 and over; however, one study included those aged as young as 40 years (Cockburn et al, 1991).

Demographic

Being a widow was a barrier for the three studies that measured this variable (Cockburn et al., 1991; Ives, Lave, Traven, Schulz, & Kuller, 1996; Østbye, Greenberg, Taylor, & Lee, 2003). The Østbye et al. study converted marital status into a dichotomous variable (married, not married) for which the not married category was presumed to include widow. In the Cockburn et al (1992) study and the Ives et al. study, being separated or divorced was also a barrier to screening.

Having a low level of education was a barrier for three out of the four studies that measured it (Cockburn et al., 1991; Ives et al., 1996; Østbye et al., 2003). Only one study measured

income as an independent variable and they found that women who earned less were less likely to screen regularly (Østbye et al., 2003).

Surprisingly, being born overseas was found not to be a screening barrier for older women in the one US study that measured this variable (Østbye et al., 2003). One reason that may account for this finding may be that the women surveyed were well aculturated, thus even though they had been born in another country they may have spent enough years in the surveyed country to be similar to the population. Unfortunately, the study did not provide further information about the time since arrival of these overseas-born participants so this hypothesis cannot be checked.

Also, being of non-Anglo ethnicity was not found to be a screening barrier for the two studies that measured this demographic variable (Glasgow, Whitlock, Valanis, & Vogt, 2000; Østbye et al., 2003). In the Østbye et al. study, women classified as black were found to be 1.38 times as likely to screen than white women (HRS data; women aged 50-65 years). This finding is in contrast to the summary provided by Madelblatt and Yabroff (2004) who reported that older women, particularly those from minority groups, are generally found to have low screening rates.

Medical/ Health beliefs

The discussion paper by Mandelblatt and Yabroff (2000) reported that mixed evidence had been found for the presence of other disease or disability factors being a barrier for screening attendance. In this literature review, medical conditions in general did not appear to be a barrier for older women in the two studies that measured a variety of medically-related variables (Ives et al., 1996; Østbye et al., 2003), except for the Ives et al. study in which self-reported indicators of dementia was a barrier.

In terms of health beliefs, the belief that feeling healthy means that Pap tests are not necessary was found to be a barrier by three out of three self-report survey studies that measured it (Clarke & Savage, 1996; Cockburn et al., 1991; Glasgow et al., 2000). However, in contrast, one study found that self-perceptions of poor or fair health, and self-perceptions of short life-expectancy, were also barriers to regular screening (Østbye et al., 2003).

Psychosocial

Embarrassment was a key barrier to cervical screening for older women in four out of four studies that examined it (Clarke & Savage, 1996; Cockburn et al., 1991; Glasgow et al., 2000; Van Til, MacQuarrie, & Herbert, 2003). Fear of getting a Pap test result (Cockburn et al., 1991; Glasgow et al., 2000; Van Til et al., 2003) and being too busy to get a Pap test (Cockburn et al., 1991; Van Til et al., 2003) were other psychosocial barriers reported. A recent focus group study indicated that Canadian women still hold some inaccurate beliefs about Pap tests which inhibit them from screening, such as thinking the treatment for cervical

cancer is worse than the disease, and that Pap tests are not needed for older women (Van Til et al., 2003).

There were mixed results for fear of pain or discomfort, with two studies finding it to be a barrier, including one Australian study (Clarke & Savage, 1996; Glasgow et al., 2000) but with another Australian study finding it not to be a barrier (Cockburn et al., 1991).

Provider / Clinic

Concern that a male provider might be performing the test was a barrier found in two out of two older women studies (Glasgow et al., 2000; Van Til et al., 2003). However, not having a regular Pap test provider had mixed support as a barrier, with two of the three older women studies finding it not to be a barrier to regular screening (Glasgow et al., 2000; Ives et al., 1996). There were several barriers associated with Pap test appointments: having to make an appointment (Glasgow et al., 2000; Van Til et al., 2003), having to ask for an appointment (Cockburn et al., 1991; Van Til et al., 2003), and various appointment-related time issues such as the time spent in the waiting room (Glasgow et al., 2000; Van Til et al., 2003).

Differences in barriers between women over and under 60 years

No paper specifically addressed the issue of whether barriers were different for women over and under the age of 60 years. To address this lack of evidence, papers that assessed the barriers of older women were compared to papers that assessed the barriers for women of all ages (see Appendix). The findings from this summary table are discussed below; however, the similarities and differences between the two groups of studies should be interpreted with caution as there were so few studies to compare (six for older women and four for women of all ages).

In general, most of the results for the studies with older women were similar to those of studies with women of all ages. Being a widow and having low education levels were both barriers across the two sets of studies. Similar knowledge deficits were found across the two groups of studies, and embarrassment, being too busy, and feeling too healthy to have a Pap tests, were also found to be barriers in multiple papers studying women of all ages.

A few differences were found for variables that were measured in more than one study within each set. Being born outside of Britain was found to be a barrier to screening for British women aged 30 to 64 years (Webb, Richardson, & Pickles, 2004). However, being non-Anglo or non-white was not a barrier for two studies of women over 60 years (Glasgow et al., 2000; Østbye et al., 2003, respectively). The fear of a positive test result was not a barrier for one of the three studies with women of all ages that measured that factor (Sutton & Rutherford, 2005); however, it was a barrier for all three studies that measured it with older women. One population study using registry data found that providers with large workloads was not a

barrier for women who regularly screen. However, women aged 45 to 70 attending focus groups spontaneously mentioned that decreased access to doctors due to reasons including doctors being overextended and not taking on additional patients, made finding a provider difficult (Van Til et al., 2003).

Messages to test with older women

Considering the barriers identified within the scope of this literature review, a set of message themes have been listed that could form the basis of future media campaigns. It is recommended that these themes could be tested during focus groups to determine whether they are relevant and motivating for older Australian women.

1. Normalise the embarrassment felt.
2. Promote women being assertive and asking for a test. Women tend to look to physicians to suggest the test. Older women visit physicians regularly, but tend not to ask and wait for the doctor to suggest a test.
3. Promote the value of preventative screening. Women often report they are too busy and put other priorities ahead of their health.
4. Address some myths that are still current:
 - (a) Older women do not need Pap tests
 - (b) Feeling healthy means that you do not need a Pap test
 - (c) Having no symptoms means that you do not need a Pap test
 - (d) A Pap test must not be important if the doctor does not mention it
 - (e) Pap tests are inaccurate
 - (f) The cure is worse than the disease.

References

- Clarke, V., & Savage, S. (1996). *Cancer beliefs and screening behaviours of older women*. Melbourne: Centre for Behavioural Research in Cancer, The Anti-Cancer Council of Victoria.
- Cockburn, J., White, V. M., Hirst, S., & Hill, D. (1991). Response of older rural women to a cervical screening campaign. *Health Promotion Journal of Australia*, 1(1), 29-34.
- Cockburn, J., White, V. M., Hirst, S., & Hill, D. (1992). Barriers to cervical screening in older women. *Australian Family Physician*, 21(7), 973-978.
- Fernbach, M. (1999). *Barriers to cervical screening*. Melbourne: Centre for Behavioural Research in Cancer, The Anti-Cancer Council of Victoria.
- Glasgow, R. E., Whitlock, E. P., Valanis, B. G., & Vogt, T. M. (2000). Barriers to mammography and Pap smear screening among women who recently had neither, one or both types of screening. *Annals of Behavioral Medicine*, 22(3), 223-228.
- Ives, D. G., Lave, J. R., Traven, N. D., Schulz, R., & Kuller, L. H. (1996). Mammography and Pap smear use by older rural women. *Public Health Reports*, 111(3), 244-250.
- Mandelblatt, J. S., & Yabroff, R. K. (2000). Breast and cervical cancer screening for older women: recommendations and challenges for the 21st Century. *Journal of the American Medical Women's Association*, 55(4), 210-215.
- Østbye, T., Greenberg, G. N., Taylor, D. H., & Lee, A. M. M. (2003). Screening mammography and Pap tests among older American women 1996-2000: results from the Health and Retirement Study (HRS) and Asset and Health Dynamics Among the Oldest Old (AHEAD). *Annals of Family Medicine*, 1(4), 209-217.
- Smith, M., Fench, L., & Barry, H. (2003). Periodic abstinence from Pap (PAP) Smear Study: women's perceptions of Pap smear screening. *Annals of Family Medicine*, 1(4), 203-208.
- Sutton, S., & Rutherford, C. (2005). Sociodemographic and attitudinal correlates of cervical screening uptake in a national sample of women in Britain. *Social Sciences & Medicine*, 61, 2460-2465.
- Van Til, L., MacQuarrie, C., & Herbert, R. (2003). Understanding the barriers to cervical cancer screening among older women. *Qualitative Health Research*, 13(8), 1116-1131.
- Victorian Cervical Cytology Registry. (2006). *Statistical Report 2005*. Melbourne: VCCR.
- Webb, R., Richardson, J., & Pickles, A. (2004). A population-based study of primary care predictors of non-attendance for cervical screening. *Journal of Medical Screening*, 11(3), 135-140.

Appendix

Pap tests barriers for older women and women in general, listed by author and year of publication, country of study, age of women, sample size and type of research

Authors and Year of Publication	Country	Age of women (years)	Sample size (n)	Type of Survey/ Research	Demographic Barriers								
					Older age	Widowed	Living alone	Low education	Low income	Born overseas	Ethnicity	Retired	Working full time
<i>Older Women:</i>													
Clarke & Savage (1996)	Australia	50 to 70	307	Telephone	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Cockburn et al. (1991)	Australia	40 to 60+	656	Telephone	✓	✓	Not IV	✓	Not IV	Not IV	Not IV	Not IV	X ^a
Glasgow et al. (2000)	USA	52 to 69	522	Written or telephone	X	Not IV	X	X	Not IV	Not IV	X (non-Anglo)	X	X
Ives, et al. (1996)	USA	65-79	317	Self-report ^b + registry	✓(70-79)	✓	Not IV	✓	Not IV	Not IV	Not IV	Not IV	Not IV
Østbye et al. (2003)	USA	51 to 90	10,485	Telephone	✓	✓ (not married)	Not IV	✓	✓	X (US vs abroad)	X (Black)	Not IV	Not IV
Van Til, MacQuarrie & Herbert (2003)	Canada	45 to 70	60	Focus groups	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given	✓
<i>Women in General:</i>													
Fernbach (1999)	Australia	25 to 69	41	Telephone	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given
Smith, French & Barry (2003)	USA	20 to 64	68	Focus groups	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given
Sutton & Rutherford (2005)	Britain	20 to 64	1307	Self-report ^b	X	✓	Not IV	✓	X	Not IV	Not IV	Not IV	X
Webb, Richardson & Pickles (2004)	Britain	30 to 64	72,613	Registry	✓ (50-64)	Not IV	✓	Not IV	✓ (high deprivation)	✓ (Great Britain vs overseas)	✓ (South Asian)	Not IV	Not IV

"Not IV" refers to a variable that was not measured as an independent variable in that study; "Not given" refers to a variable that was not mentioned spontaneously by participants during focus groups or at an open-ended question during a largely qualitative survey; ✓ refers to evidence that the variable was a barrier; X refers to evidence that the variable was not a barrier.

^a Overdue screeners tended to be unemployed, compared to up-to-date screeners.

^b Survey type not specified (telephone or written).

Appendix cont'd: Pap tests barriers for older women and women in general, listed by author and year of publication, country of study, age of women, sample size and type of research

<i>Authors and Year of Publication</i>	<i>Country</i>	<i>Age of women (years)</i>	<i>Sample size (n)</i>	<i>Type of Research</i>	<i>Medical / Health Belief Barriers</i>				
					<i>Possible dementia</i>	<i>Other medical conditions</i>	<i>Belief that health is poor or fair</i>	<i>Feel too healthy/ check my own body</i>	<i>Self-perceived short life expectancy</i>
<i>Older Women:</i>									
Clarke & Savage (1996)	Australia	50 to 70	307	Telephone	Not IV	Not IV	Not IV	✓	Not IV
Cockburn et al. (1991)	Australia	40 to 60+	656	Telephone	Not IV	Not IV	Not IV	✓ ^e	Not IV
Glasgow et al. (2000)	USA	52 to 69	522	Written or telephone	Not IV	Not IV	Not IV	✓	Not IV
Ives, et al. (1996)	USA	65 to 79	317	Self-report + registry	✓	X ^c	Not IV	Not IV	Not IV
Østbye et al. (2003)	USA	51 to 90	10,485	Telephone	Not IV	X ^d	✓	Not IV	✓
Van Til, MacQuarrie & Herbert (2003)	Canada	45 to 70	60	Focus groups	Not given	Not given	Not given	Not given	Not given
<i>Women in General:</i>									
Fernbach (1999)	Australia	25 to 69	41	Telephone	Not given	Not given	Not given	✓	Not given
Smith, French & Barry (2003)	USA	20 to 64	68	Focus groups	Not given	Not given	Not given	Not given	Not given
Sutton & Rutherford (2005)	Britain	20 to 64	1307	Self-report	Not IV	Not IV	Not IV	✓	Not IV
Webb, Richardson & Pickles (2004)	Britain	30 to 64	72,613	Registry	Not IV	Not IV	Not IV	Not IV	Not IV

^c Medical variables measured were history of myocardial infarction, diabetes, arthritis and depression.

^d Cognitive impairment was the only medical variable measured, and it was only significant in the bivariate analyses but not in the multivariate analyses.

^e Found more likely to be a barrier for women who did not respond to the campaign at Time 2 (i.e., those who did not have a Pap test during the three months of the campaign).

Appendix cont'd: Pap tests barriers for older women and women in general, listed by author and year of publication, country of study, age of women, sample size and type of research

Authors and year of publication	Country	Age of women (years)	Sample size (n)	Type of research	Psychosocial Barriers						
					Previous bad experience	Embarrassment / Physical appearance	Fear of pain/ Previous pain / Discomfort	Fear of the result / Previous ca experience	Too busy/ Looking after others first	Knowledge deficits	Low value of preventive care
<i>Older Women:</i>											
Clarke & Savage (1996)	Australia	50 to 70	307	Telephone	Not given	✓	✓	Not given	Not given	Not given	Not given
Cockburn et al. (1991)	Australia	40 to 60+	656	Telephone	Not IV	✓	X	✓	✓	Not IV	Not IV
Glasgow et al. (2000)	USA	52 to 69	522	Written or telephone	✓	✓	✓	✓	Not IV	✓ ^f	Not IV
Ives, et al. (1996)	USA	65 to 79	317	Self-report + registry	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Østbye et al. (2003)	USA	51 to 90	10,485	Telephone	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Van Til, MacQuarrie & Herbert (2003)	Canada	45 to 70	60	Focus groups	✓	✓	✓	✓	✓	✓ ^g	✓
<i>Women in General:</i>											
Fernbach (1999)	Australia	25 to 69	41	Telephone	✓	✓	✓	✓	✓	✓	✓
Smith, French & Barry (2003)	USA	20 to 64	68	Focus groups	✓	✓	Not given	✓	✓	Not given	Not given
Sutton & Rutherford (2005)	Britain	20 to 64	1307	Self-report	Not IV	✓	X	X	Not IV	✓	✓
Webb, Richardson & Pickles (2004)	Britain	30 to 64	72,613	Registry data	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV

^f The cure is worse than the disease; not necessary for my age.^g Not knowing what a Pap test is for; believing not being sexually active meant you no longer needed Pap tests; that cervical cancer cannot be cured; that older women did not need Pap tests.

Appendix cont'd: Pap tests barriers for older women and women in general, listed by author and year of publication, country of study, age of women, sample size and type of research

Authors and Year of Publication	Country	Age of women (years)	Sample size (n)	Type of Research	Provider / Clinic Barriers								
					Large practice	Large workload	Single-handed practice	Part-time physician	Male physician/ male might be doing test	Female physician available < 40 years old	Does not have regular provider	Gynae retired / Don't want local doctor to do test	
<i>Older Women:</i>													
Clarke & Savage (1996)	Australia	50 to 70	307	Telephone	Not IV	Not IV	Not IV	Not IV	Not given	Not IV	Not IV	Not given	
Cockburn et al. (1991)	Australia	40 to 60+	656	Telephone	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	
Glasgow et al. (2000)	USA	52 to 69	522	Written or telephone	Not IV	Not IV	Not IV	Not IV	✓	Not IV	X	Not IV	
Ives, et al. (1996)	USA	65-79	317	Self-report + registry	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	X	Not IV	
Østbye et al. (2003)	USA	51 to 90	10,485	Telephone	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	
Van Til, MacQuarrie & Herbert (2003)	Canada	45 to 70	60	Focus groups	Not given	✓	Not given	Not given	✓	Not given	✓	✓	
<i>Women in General:</i>													
Fernbach (1999)	Australia	25 to 69	41	Telephone	Not given	Not given	Not given	Not given	Not given	Not given	✓	✓	
Smith, French & Barry (2003)	USA	20 to 64	68	Focus groups	Not given	Not given	Not given	Not given	Not given	Not given	Not given	Not given	
Sutton & Rutherford (2005)	Britain	20 to 64	1307	Self-report	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV	
Webb, Richardson & Pickles (2004)	Britain	30 to 64	72,613	Registry data	✓ (over 4000 patients)	X	✓	✓	✓ ^h	X	Not IV	Not IV	

^h Only having a South-Asian male doctor was a barrier. Having a male non-South Asian, or a female South Asian, or a female non-South Asian doctor, were not barriers.

Appendix cont'd: Pap tests barriers for older women and women in general, listed by author and year of publication, country of study, age of women, sample size and type of research

Authors and year of publication	Country	Age of women (years)	Sample size (n)	Type of research	Provider / Clinic Barriers					
					Cold clinical environment	Appointment time issues ⁱ	Having to make an appointment	Having to ask for a Pap test	Not being told negative results	Belief that test is inaccurate
Older Women:										
Clarke & Savage (1996)	Australia	50 to 70	307	Telephone	Not given	Not given	Not given	Not given ^j	Not given	Not given
Cockburn et al. (1991)	Australia	40 to 60+	656	Telephone	Not IV	Not IV	Not IV	✓ ^e	Not IV	X
Glasgow et al. (2000)	USA	52 to 69	522	Written or telephone	Not IV	✓	✓	Not IV	Not IV	✓
Ives, et al. (1996)	USA	65 to 79	317	Self-report + registry	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Østbye et al. (2003)	USA	51 to 90	10,485	Telephone	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Van Til, MacQuarrie & Herbert (2003)	Canada	45 to 70	60	Focus groups	✓	✓	✓	✓	✓	Not given
Women in General:										
Fernbach (1999)	Australia	25 to 69	41	Telephone	Not given	✓	Not given	Not given	Not given	✓
Smith, French & Barry (2003)	USA	20 to 64	68	Focus groups	Not given	✓	Not given	Not given	Not given	✓
Sutton & Rutherford (2005)	Britain	20 to 64	1307	Self-report	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV
Webb, Richardson & Pickles (2004)	Britain	30 to 64	72,613	Registry data	Not IV	Not IV	Not IV	Not IV	Not IV	Not IV

^e Found more likely to be a barrier for women who did not respond to the campaign at Time 2 (i.e., those who did not have a Pap test during the three months of the campaign).

ⁱ Time to wait for an available appointment; time spent in the waiting room; time spent waiting during the consultation after undressing.

^j This was not spontaneously mentioned as a barrier, but 29% indicated they could be persuaded by someone to have a Pap test, of which 79% said that person would be a medical profession