

Table 1: Quality Indicators by Site, Zone and Province, individuals ages 50-69, Screen Years 2016_2017

Indicator	Target	AM	AN	BR	Central [△]	KE	NG	SY	TR	YA	Western Zone 1	Northern Zone 2	Eastern Zone 3	Central Zone 4	Nova Scotia
Number of Exams	NA	2855	4249	5919	37256	6658	4357	10142	5857	5184	17761	13069	14391	37256	82477
Number of 1st Screens	NA	160	169	247	1394	345	164	464	168	174	766	492	633	1394	3285
Number of Screen Detected Cancers	NA	17	18	35	218	22	25	45	33	34	91	75	63	218	447
Coverage															
Participation Rate, 30 month*	≥ 70%	52.3%	57.0%	54.6%	58.0%	49.5%	55.2%	46.5%	48.6%	51.4%	51.6%	51.5%	49.2%	58.0%	53.8%
Retention Rate [†]															
Initial	≥ 75%	37.1%	24.5%	40.5%	36.4%	32.3%	40.2%	33.3%	27.3%	40.5%	36.3%	34.2%	35.8%	37.0%	36.0%
Subsequent	≥ 90%	80.0%	79.0%	82.2%	79.5%	76.6%	84.9%	65.5%	76.7%	81.3%	78.3%	80.2%	78.3%	79.2%	78.9%
Follow-Up															
Abnormal Call Rate															
Initial	< 10%	16.9%	21.9%	17.8%	11.1%	13.3%	19.5%	16.8%	28.6%	16.7%	15.5%	21.7%	18.2%	11.1%	14.4%
Subsequent	< 5%	7.2%	7.8%	6.0%	4.5%	4.7%	7.9%	5.2%	9.0%	6.2%	5.6%	8.3%	6.0%	4.5%	5.6%
Diagnostic Interval															
a) % notified within 2 weeks of screen	≥ 90%	90.3%	97.5%	94.8%	98.2%	98.2%	98.8%	95.4%	99.3%	96.9%	94.0%	93.5%	97.3%	98.5%	96.5%
b) Time from abnormal screen to definitive diagnosis															
◇without tissue biopsy (% diagnosed within 5 weeks)	≥ 90%	68.4%	80.5%	65.0%	86.7%	90.4%	92.7%	71.4%	83.0%	32.4%	66.3%	82.9%	75.1%	86.7%	78.4%
◇with tissue biopsy (% diagnosed within 7 weeks)	≥ 90%	61.0%	70.0%	73.4%	78.5%	70.8%	88.8%	74.8%	64.1%	25.0%	52.9%	71.4%	73.2%	78.5%	71.0%
Quality of Screening															
Benign: Malignant Core Biopsy Ratio															
a) Initial	None	Small Cell	Undefined	Small Cell	3.58 : 1	Small Cell	Undefined	Small Cell	Undefined	Small Cell	6.00 : 1	Small Cell	Small Cell	3.58 : 1	4.96 : 1
b) Subsequent	None	2.09 : 1	1 : 1	2.05 : 1	2.37 : 1	1.75 : 1	2 : 1	1.07 : 1	2.71 : 1	2.09 : 1	1.98 : 1	2.34 : 1	1.05 : 1	2.37 : 1	2.08 : 1
Benign : Malignant Open Surgical Biopsy Ratio															
a) Initial	≤ 1 : 1	Small Cell	Undefined	Small Cell	0 : 1	Small Cell	Undefined	Small Cell	Small Cell	Small Cell	Small Cell	Small Cell	Small Cell	0.00 : 1	Small Cell
b) Subsequent	≤ 1 : 1	Small Cell	Small Cell	0.23 : 1	0.09 : 1	0 : 1	Small Cell	0.15 : 1	0.16 : 1	Small Cell	0.10 : 1	0.11 : 1	0.12 : 1	0.09 : 1	0.10 : 1
PPV															
a) Initial	≥ 5%	Small Cell	0.0%	Small Cell	9.7%	Small Cell	0.0%	Small Cell	Small Cell	Small Cell	6.7%	Small Cell	Small Cell	9.7%	5.6%
b) Subsequent	≥ 6%	8.3%	5.7%	9.0%	12.7%	6.8%	7.5%	8.2%	6.0%	10.3%	8.7%	6.9%	7.2%	12.7%	9.4%

Indicator	Target	AM	AN	BR	Central [△]	KE	NG	SY	TR	YA	Western Zone 1	Northern Zone 2	Eastern Zone 3	Central Zone 4	Nova Scotia
Detection															
In Situ Cancer Detection Rate															
a) Initial	None	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Small Cell	0.00	0.00	Small Cell	0.00	0.00	Small Cell
b) Subsequent	None	Small Cell	Small Cell	Small Cell	1.00	Small Cell	Small Cell	Small Cell	Small Cell	1.20	0.82	0.64	0.36	1.00	0.86
Cancer Detection Rate															
a) Initial	>5 per 1,000 screens	Small Cell	0.0	Small Cell	10.8	Small Cell	0.0	Small Cell	Small Cell	Small Cell	10.4	Small Cell	Small Cell	10.8	8.1
b) Subsequent	> 3 per 1,000 screens	5.9	4.4	5.5	5.7	3.2	6.0	4.2	5.4	6.4	4.9	5.7	4.3	5.7	5.3
Disease Extent at Diagnosis															
Screen Detected Invasive Tumour Size															
<= 10mm †	>25% †	Small Cell	50.0%	26.1%	37.8%	31.8%	45.0%	60.0%	53.3%	34.8%	30.9%	43.8%	55.0%	37.8%	39.7%
<= 15 mm	>50%	42.9%	70.0%	47.8%	69.2%	77.3%	60.0%	70.0%	60.0%	47.8%	57.4%	56.3%	70.0%	69.2%	64.3%
Proportion of Node Negative Screen Detected Invasive Cancer	>70%	71.4%	70.0%	69.6%	82.0%	81.8%	85.0%	80.0%	63.3%	82.6%	77.9%	71.9%	75.0%	82.0%	77.1%

Small Cell: when cell size is between 1 and 4, it is suppressed to prevent potential identification of patients, especially in smaller communities/sites.

△ This includes three screening locations: Cobequid, Dartmouth and Halifax

The benign to malignant core biopsy ratio is undefined when the denominator is zero.

The benign to malignant open surgical biopsy ratio is undefined when the denominator is zero.

* Participation Rate is presented for a 30 month period ending December 31 2017

‡ Retention Rate is presented for women ages 50-67 who had a screen in 2015, and who were re-screened within 30 months of their previous screen

† No longer monitored at the national level, but NSBSP continues to monitor

Table 2: Quality Indicators by **Age Group**, Screen Years 2016_2017

Indicator	Target (Ages 50-69)	40 to 49	50 to 59	60 to 69	70+
Number of Exams	NA	29377	42553	40957	13852
Number of 1st Screens	NA	7023	2375	1318	316
Number of Screen Detected Cancers	NA	74	173	276	156
Coverage					
Participation Rate, 30 month*	≥ 70%	40.2%	52.5%	59.1%	20.1%
Retention Rate [†]					
Initial	≥ 75%	58.9%	33.9%	36.9%	17.4%
Subsequent	≥ 90%	85.0%	77.7%	74.6%	57.1%
Follow-Up					
Abnormal Call Rate					
Initial	< 10%	14.0%	15.1%	13.1%	13.3%
Subsequent	< 5%	10.6%	6.4%	6.7%	7.4%
Diagnostic Interval - Time from abnormal screen to definitive diagnosis					
◇ without tissue biopsy (% diagnosed within 5 weeks)	≥ 90%	79.0%	78.6%	78.3%	73.9%
◇ with tissue biopsy (% diagnosed within 7 weeks)	≥ 90%	66.6%	70.2%	71.7%	70.5%
Quality of Screening					
Benign : Malignant Core Biopsy Ratio					
a) Initial	None	9.12 : 1	5.82 : 1	2.76 : 1	1.57 : 1
b) Subsequent	None	4.47 : 1	2.30 : 1	1.59 : 1	1.19 : 1
Benign : Malignant Open Surgical Biopsy Ratio					
a) Initial	≤ 1 : 1	0.35 : 1	small cell	small cell	0.00 : 1
b) Subsequent	≤ 1 : 1	0.29 : 1	0.15 : 1	0.07 : 1	0.04 : 1
PPV					
a) Initial	≥ 5%	2.3%	4.2%	8.7%	19.0%
b) Subsequent	≥ 6%	3.1%	7.2%	11.5%	17.6%
Detection					
In Situ Cancer Detection Rate					
a) Initial	None	0.71	0.00	small cell	small cell
b) Subsequent	None	0.45	0.73	1.30	2.11

Indicator	Target (Ages 50-69)	40 to 49	50 to 59	60 to 69	70+
Invasive Cancer Detection Rate					
a) Initial	>5 per 1,000 screens	3.3	6.3	11.4	25.3
b) Subsequent	> 3 per 1,000 screens	3.3	4.6	7.7	13.0
Disease Extent at Diagnosis					
Screen Detected Invasive Tumour Size					
<= 10mm †	>25% †	29.0%	40.4%	39.3%	42.0%
<= 15 mm	>50%	50.0%	65.8%	63.3%	70.2%
Proportion of Node Negative Screen Detected Invasive Cancer	>70%	64.5%	75.3%	78.2%	84.0%

Small Cell: when cell size is between 1 and 4, it is suppressed to prevent potential identification of patients, especially in smaller communities/sites.

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Table 3: Quality Indicators Time Trend, 2013 to 2017

Indicator	Target	2013	2014	2015	2016	2017
Number of Exams	NA	41431	41817	41671	43544	39966
Number of 1st Screens	NA	1943	2482	2001	2028	1665
Number of Screen Detected Cancers	NA	216	273	271	222	227
Coverage						
Participation Rate, 30 month*	≥ 70%	55.5%	55.4%	56.1%	54.6%	53.8%
Retention Rate [†]						
Initial	≥ 75%	43.9%	39.7%	36.7%	44.4%	36.0%
Subsequent	≥ 90%	78.2%	77.8%	77.0%	81.1%	78.9%
Follow-Up						
Abnormal Call Rate						
Initial	< 10%	16.3%	14.8%	14.7%	13.7%	15.3%
Subsequent	< 5%	5.4%	5.0%	5.2%	5.3%	5.8%
Diagnostic Interval - Time from abnormal screen to definitive diagnosis						
◇ without tissue biopsy (% diagnosed within 5 weeks)	≥ 90%	76.5%	78.6%	80.6%	83.9%	72.9%
◇ with tissue biopsy (% diagnosed within 7 weeks)	≥ 90%	67.9%	62.6%	70.7%	75.9%	65.8%
Quality of Screening						
Benign : Malignant Core Biopsy Ratio						
a) Initial	None	4.21 : 1	2.90 : 1	1.94 : 1	4.15 : 1	4.50 : 1
b) Subsequent	None	2.29 : 1	1.80 : 1	1.66 : 1	2.03 : 1	1.71 : 1
Benign : Malignant Open Surgical Biopsy Ratio						
a) Initial	≤ 1 : 1	0.1 : 1	0.1 : 1	0.2 : 1	0.2 : 1	small cell
b) Subsequent	≤ 1 : 1	0.2 : 1	0.1 : 1	0.1 : 1	0.1 : 1	0.06 : 1
PPV						
a) Initial	≥ 5%	8.8%	8.7%	11.5%	6.8%	4.3%
b) Subsequent	≥ 6%	8.9%	12.4%	11.7%	9.4%	9.7%
Detection						
In Situ Cancer Detection Rate						
a) Initial	None	3.08	2.01	1.50	0.00	small cell
b) Subsequent	None	0.86	1.07	1.01	0.75	1.02

Indicator	Target	2013	2014	2015	2016	2017
Invasive Cancer Detection Rate						
a] Initial	>5 per 1,000 screens	11.3	10.9	15.5	9.4	7.2
b] Subsequent	> 3 per 1,000 screens	3.9	5.0	4.8	4.9	5.7
Disease Extent at Diagnosis						
Screen Detected Invasive Tumour Size						
<= 10mm †	>25% †	34.0%	42.6%	36.3%	37.3%	41.9%
<= 15 mm	>50%	63.2%	64.9%	62.1%	60.4%	67.2%
Proportion of Node Negative Screen Detected Invasive Cancer	>70%	79.5%	83.6%	81.4%	77.8%	80.6%

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