

# Time to Cervical Cancer Diagnosis and Treatment in the National Breast and Cervical Cancer Early Detection Program, 1996–2007

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## Background

### National Breast and Cervical Cancer Early Detection Program

- Established by the Breast and Cervical Cancer Mortality Prevention Act 1990 to provide underserved women access to breast and cervical cancer early detection
- Administered by CDC under cooperative agreements with state, tribal and territorial health departments
- Currently operating in all 50 states, 5 territories, District of Columbia, and 12 tribes and tribal organizations.
- Only national organized screening program in the US, has
  - Screened 3.7 million women
  - Diagnosed 123,563 precancerous cervical lesions and 2,554 cervical cancers

### Early Detection Continuum

- Screening for cervical cancer prevents most invasive cervical cancers
- Complete and timely follow-up of abnormal findings must occur to diagnose disease
- Once cancer is diagnosed, treatment must be initiated for maximum benefits from early detection to be realized

### Purpose

- To examine time intervals from cervical cancer screening, to diagnosis and treatment initiation among low income and uninsured women in the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) during two consecutive time periods

### Methods

- Data Source:** We used the Minimum Data Elements to examine time intervals. These data are collected annually to monitor the quality of services delivered by the program. The information is sent to our contractor and then to CDC in a standardized format.
- Dataset:** includes demographic, self-reported screening history, screening results using Bethesda system, diagnostic procedures and outcome, and initiation of treatment
- Two time periods examined:** Time 1:1996–2001, Time 2: 2002–2007
- Abnormal screening results:** Low-grade squamous intraepithelial (LSIL), High-grade squamous intraepithelial (HSIL) and squamous cancer (SqCa)
- Study Population:** Women 18–64 years old with an abnormal screening result
- Exclusion criteria:** Women with missing dates for screening, diagnosis or treatment

## Outcomes

- Diagnosis includes precancers (cervical intraepithelial neoplasia CIN II, III) or invasive cancer
- Intervals (Median days)
  - Screening to Diagnosis: Date of screening examination to date of diagnosis
  - Diagnosis to Treatment: Date of diagnosis to date of treatment initiation
  - Screening to Treatment: Date of screening examination to date of treatment initiation
- All results were compared to program benchmarks: Screening to Diagnosis and Diagnosis to Treatment (<60 days), Screening to Treatment (<120 days)

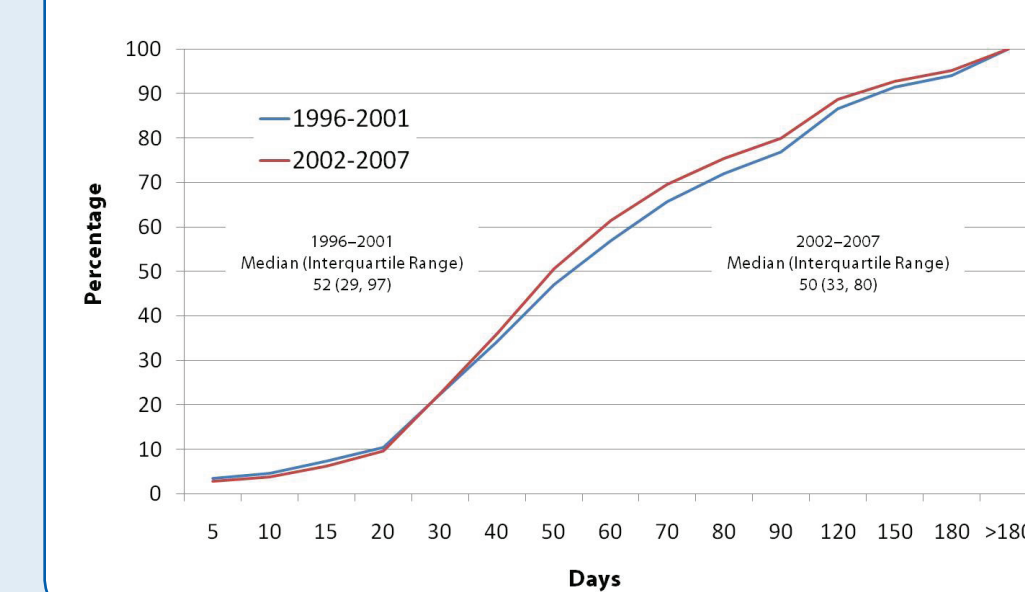
## Results

For the entire study period

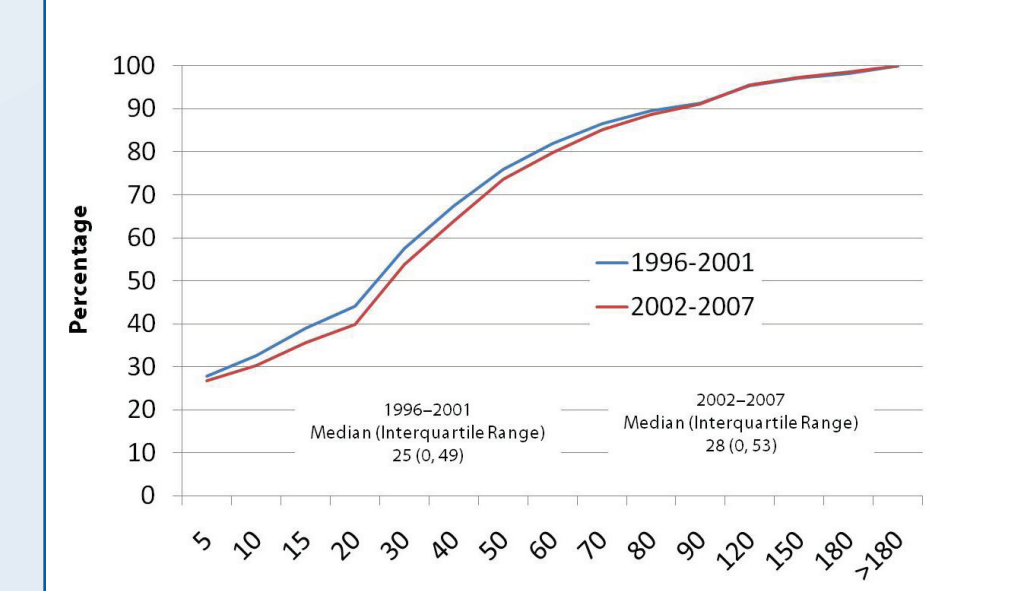
- 83,206 women screened for cervical cancer through the NBCCEDP had abnormal screen results
- 22,958 were diagnosed with CIN II or III
- 1,134 were diagnosed with invasive cancer

	1996–2001		2002–2007	
	N= 27,190	%	N= 56,016	%
<b>Age at Screen</b>				
18-29	11,998	44.1	29,430	52.5
30-39	4,689	17.2	8,701	15.5
40-49	5,678	20.9	10,834	19.3
50-64	4,487	16.5	6,859	12.2
65+	338	1.2	192	0.3
<b>Race/Ethnicity</b>				
White	16,014	58.9	33,082	59.1
Black	3,192	11.7	5,941	10.6
Asian	442	1.6	1,114	2
American Indian	756	2.8	2,070	3.7
Hispanic	6,786	25	13,809	24.7
<b>Residence</b>				
Metropolitan	17,769	65.4	38,507	68.7
Urban	7,941	29.2	15,589	27.8
Rural	1,480	5.4	1,920	3.4
<b>Pap Test Result</b>				
LSIL	17,716	65.2	40,600	72.5
HSIL	8,913	32.8	14,698	26.2
SqCa	561	2.1	718	1.3

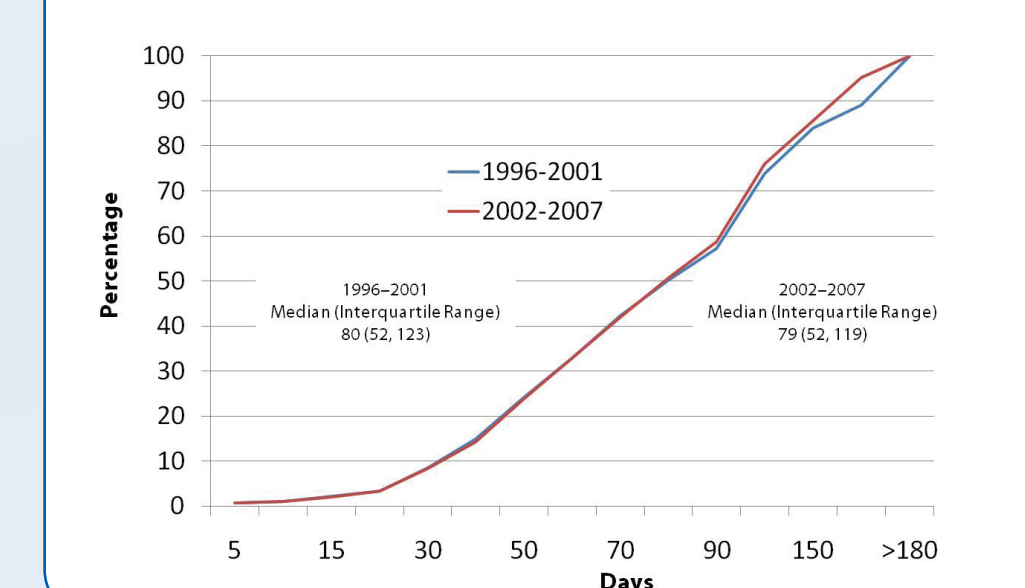
Days from Abnormal Pap Test to Diagnosis of CIN II, III or Invasive Cancer



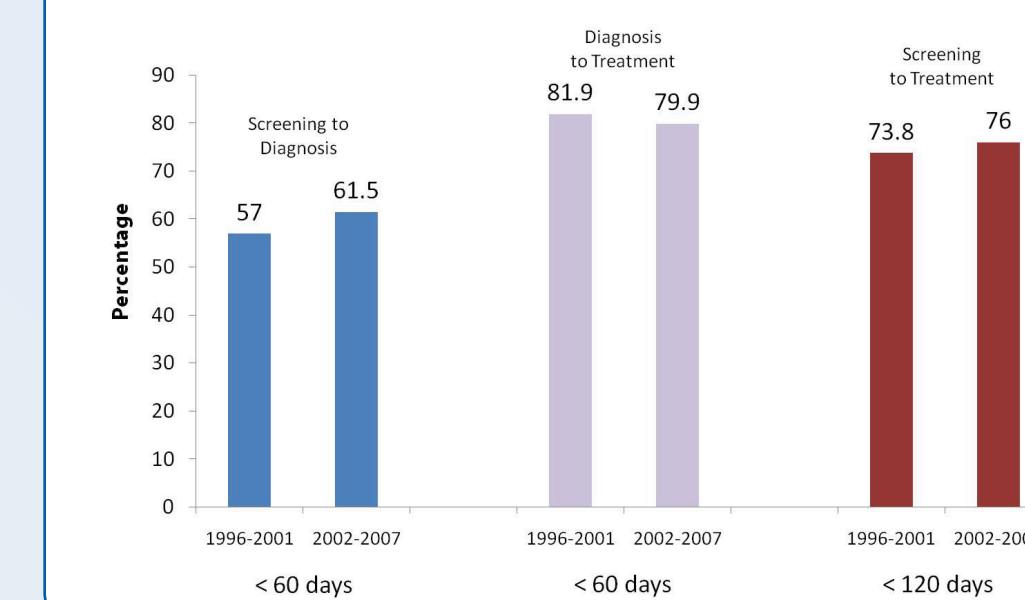
Days from Diagnosis of CIN II, III or Invasive Cancer to Treatment Initiation



Days from Abnormal Pap Test to Treatment Initiation



Percentages of NBCCEDP Women Meeting Quality Benchmarks



## Conclusions

- Diagnostic intervals have shortened over time while treatment initiation intervals have increased slightly
- Total intervals from screening to treatment initiation have remained stable
- The proportion of women receiving follow-up meeting program benchmarks has improved over time for diagnosis

## Strengths

- Services are delivered in a community setting by a wide range of providers
- Only national organized screening program reported in the United States to date
- Data represents results of the NBCCEDP program monitoring activities to assure quality services to women screened for cervical cancer

## Limitations

- Results may not be representative of other populations
- Results may be conservative as women may receive follow-up outside the program

Information about CDC's Cancer Prevention & Control Programs [www.cdc.gov/cancer](http://www.cdc.gov/cancer)

