

# The Basic facts of Korean breast cancer in 2013: Results of a nationwide survey and breast cancer registry database

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# Backgrounds

- Korean Breast Cancer Society (KBCS)
  - Nationwide, hospital-based breast cancer registry (1996~)
  - Biannual data announcement (1998~)
  - Online registration program (2001~)
- **Aim**
  - Analyze the basic facts of Korean breast cancer in 2013
  - Analyze trends in clinical characteristics and management of breast cancer (2002~2013)

# Methods

- Data collection
  - Newly diagnosed primary breast cancer patients (2013.01.01~2013.12.31)
    - **Nationwide questionnaire survey**  
: total number (invasive breast cancer + in situ cancer), age
    - **KBCS online registry** : clinical manifestation, diagnostic method, type of surgery, pathologic information (histological type, AJCC/TNM stage, biological markers)
- Statistical analysis
  - Linear regression analysis: trends in each parameter over time
  - Joinpoint regression method by Joinpoint Regression Program (ver.4.2.0.2)
  - $p$ -value  $<0.05$  was regarded as statistically significant

# Results

## Survey data of 2013

- **99 hospitals and clinics**
  - University hospital 73.2%
  - General hospital 23.7%
  - Private clinic 3.1%
- **19,273 female breast cancer cases**
  - Invasive ductal carcinoma (IDC): 16,012 cases
  - Ductal carcinoma in situ (DCIS): 3,264 cases
  - Male IDC & DCIS: 43 cases
- Crude rate of incidence (CR) : 76.2 women per 100,000

# Age distribution

Age	Survey data	KBCS Registry data
	No. of patients (%)	No. of patients (%)
<20	4 (0.02)	4 (0.03)
20-29	180 (1.0)	135 (1.1)
30-39	1,822 (10.0)	1,288 (10.3)
<b>40-49</b>	<b>6,559 (36.1)</b>	<b>4,620 (36.9)</b>
<b>50-59</b>	<b>5,767 (31.7)</b>	<b>3,889 (31.1)</b>
60-69	2,554 (14.0)	1,713 (13.7)
70-79	1,148 (6.3)	774 (6.2)
>80	150 (0.8)	99 (0.7)
Total	18,184 (100.0)	12,522 (100.0)

Unknown data of survey data were excepted.

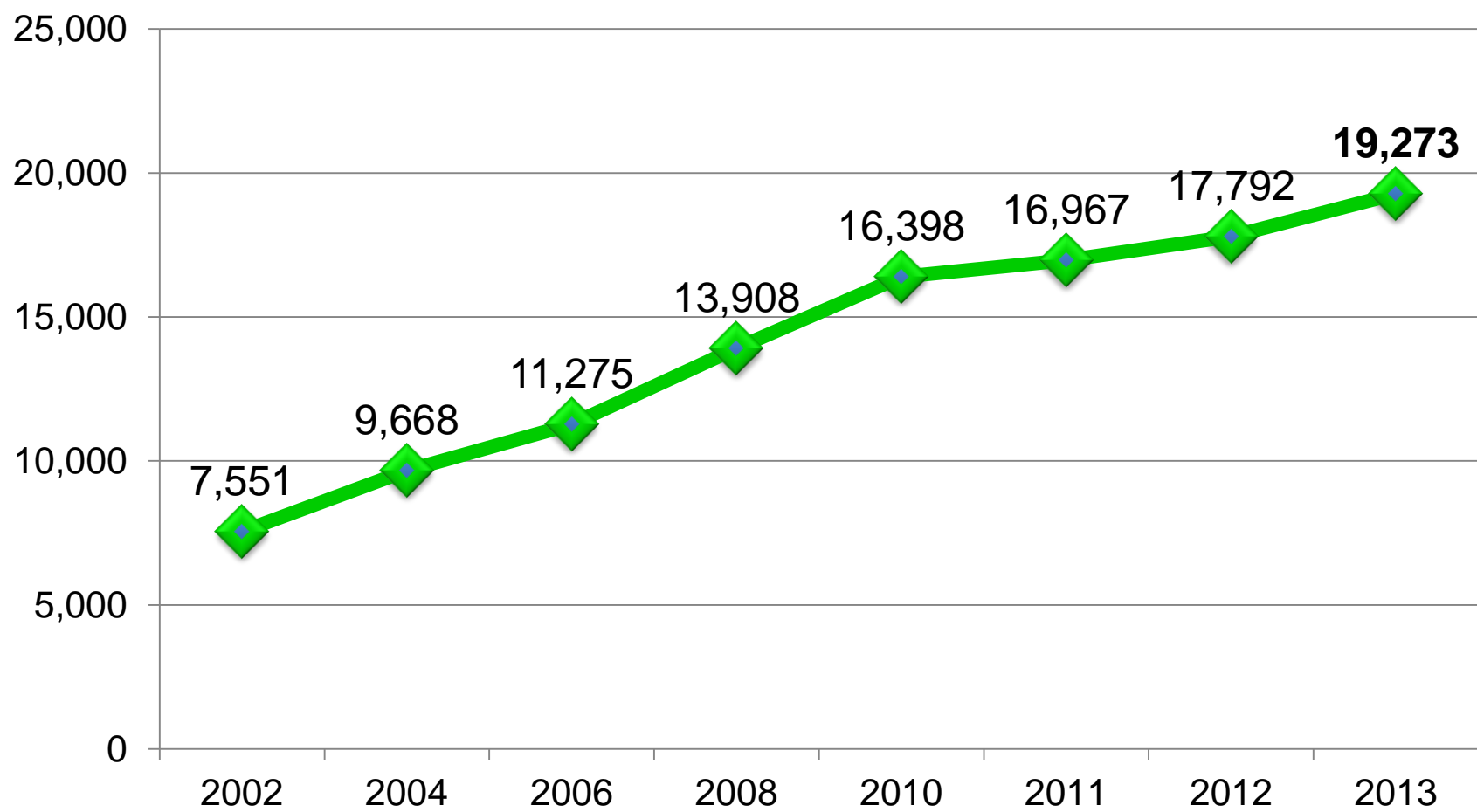
# Stage distribution

Stage	KBCS Registry data	
	No. of patients	%
0	1,749	14.5
1	5,152	42.6
2	3,895	32.2
3	1,121	9.3
4	175	1.4
Total	12,092	100.0

# Types of surgical treatment

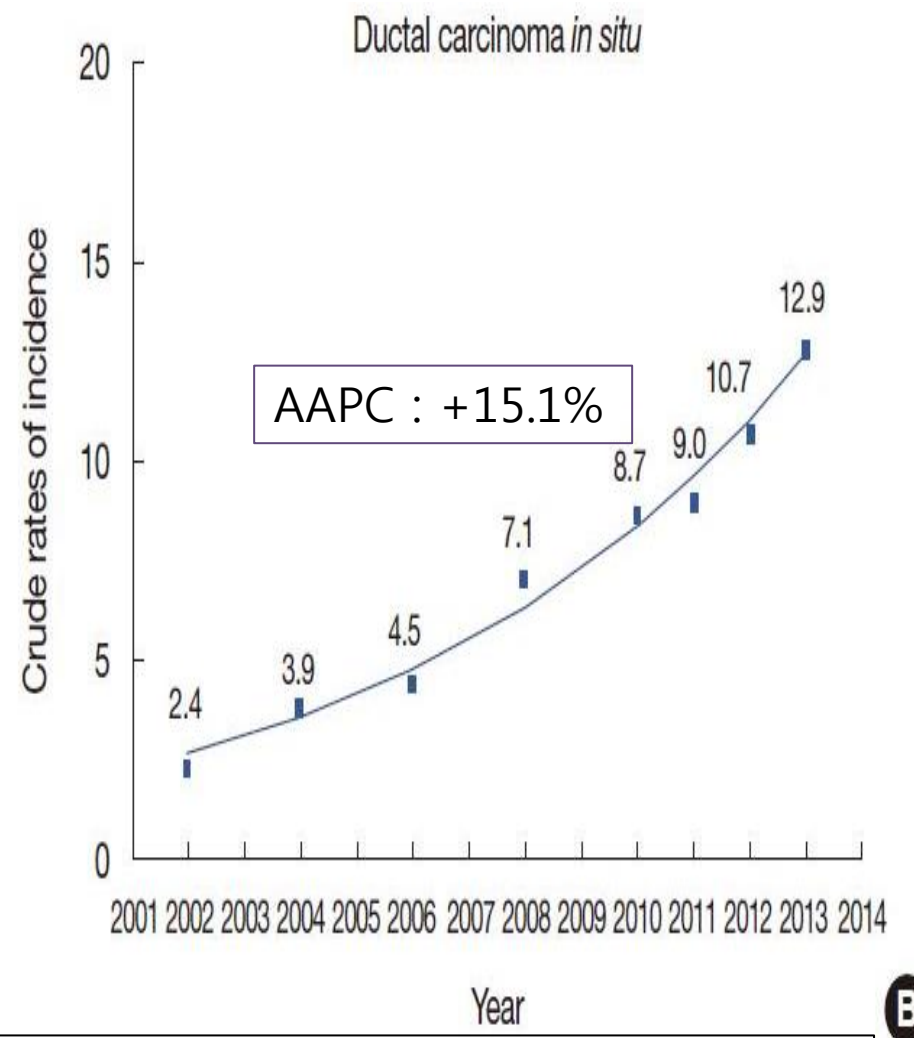
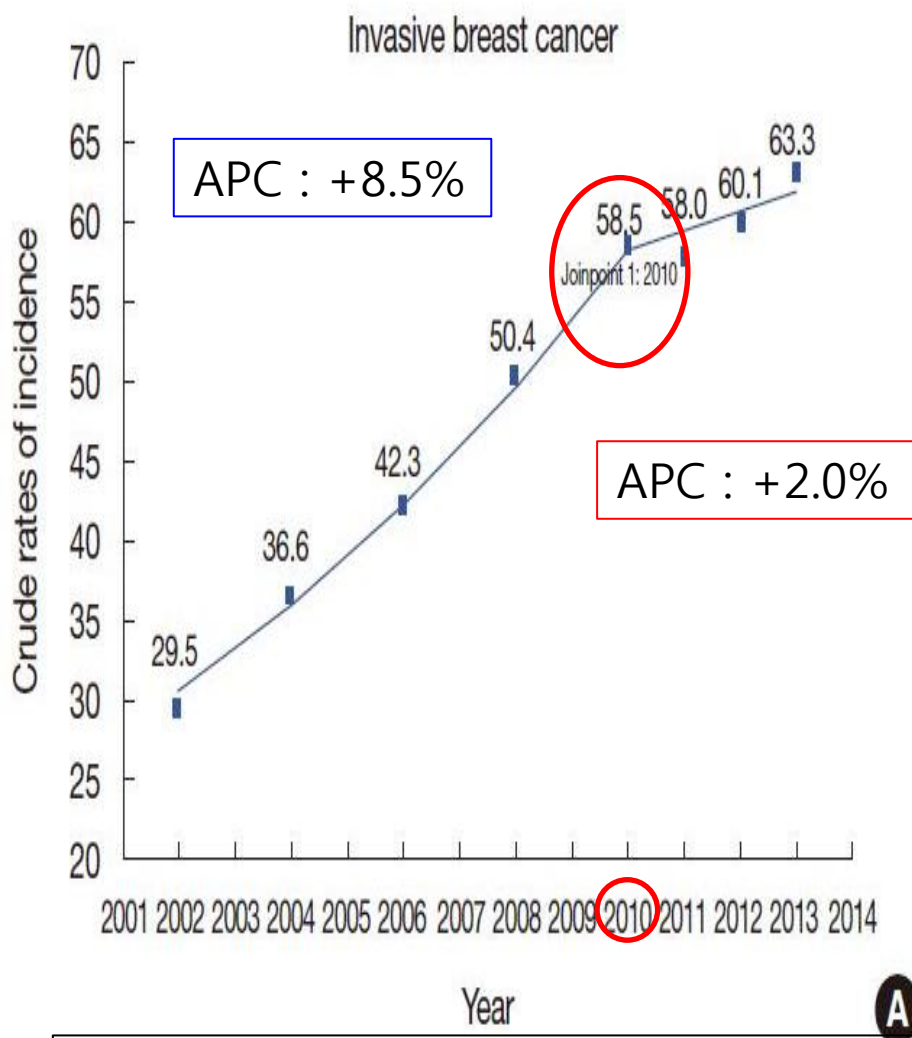
Surgery	KBCS Registry data	
	No. of patients	%
Mastectomy	4,036	32.4
<b>Breast conserving surgery</b>	<b>8,366</b>	<b>67.1</b>
Others	57	0.5
Total	12,459	100.0

# Total number of newly diagnosed breast cancer patients



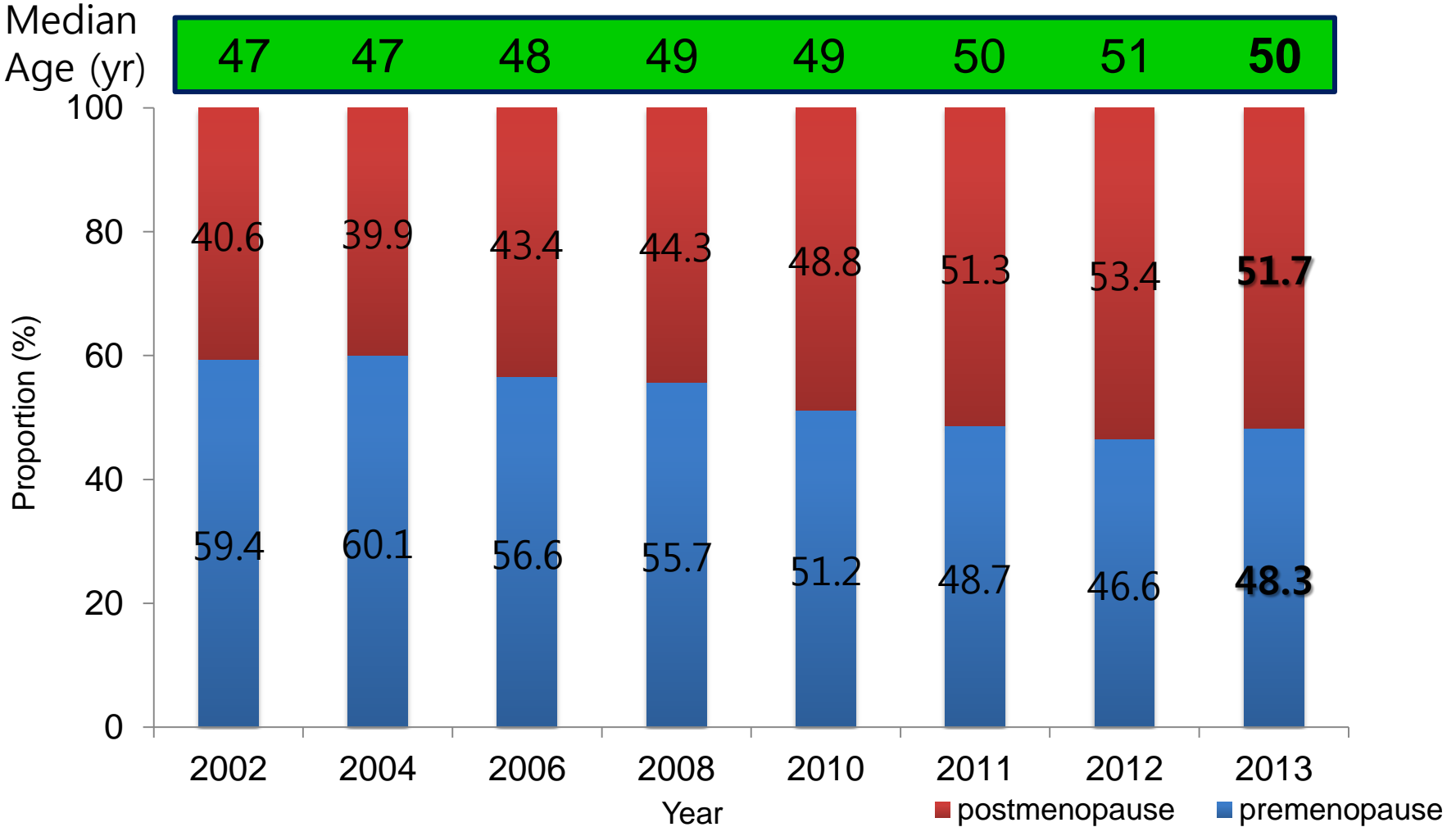


# Trends in crude incidence rates of Korean female breast cancer from 2002 to 2013

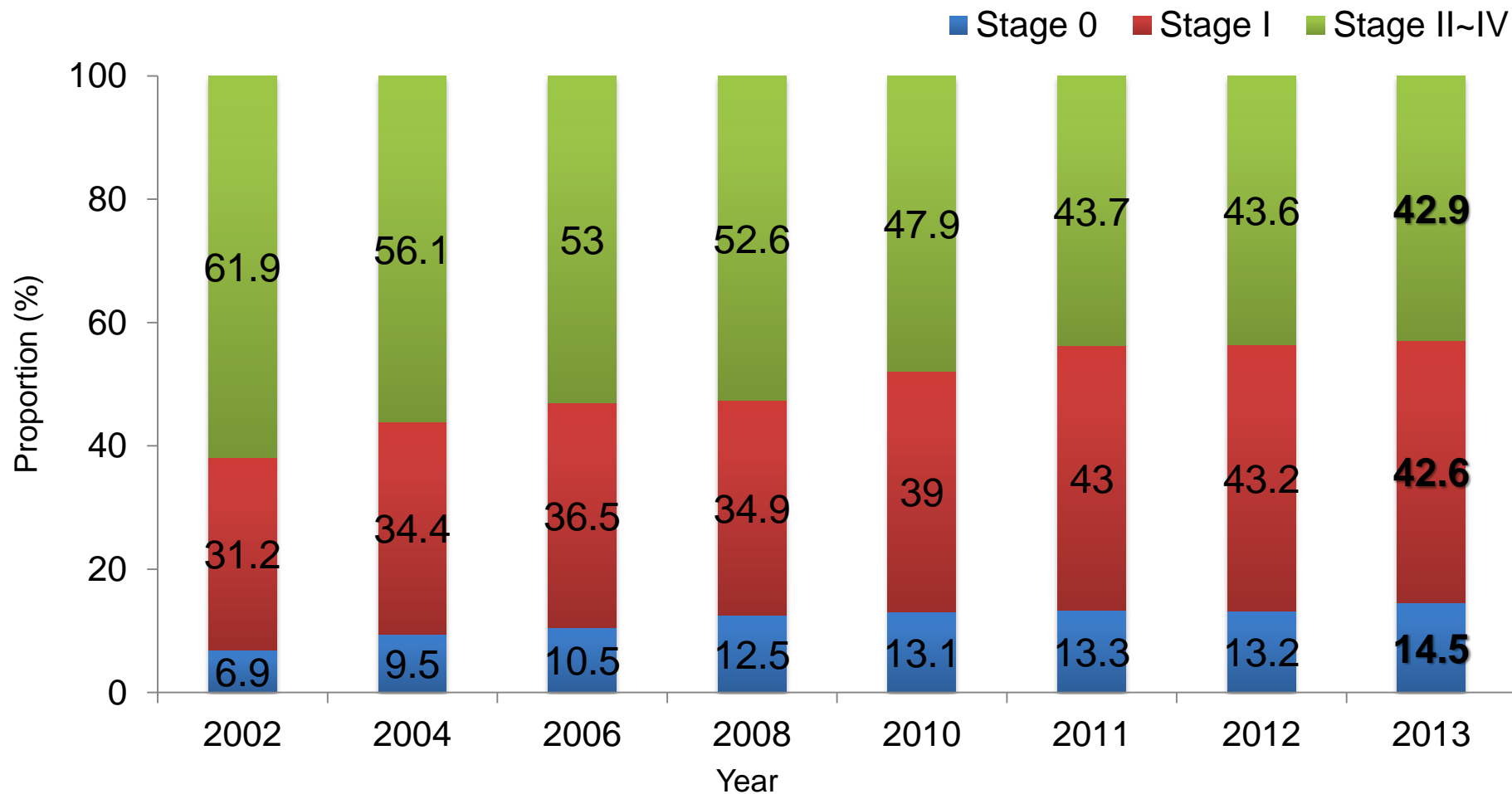


**APC : Annual Percentage Change (calculated using Joinpoint Regression Program)**

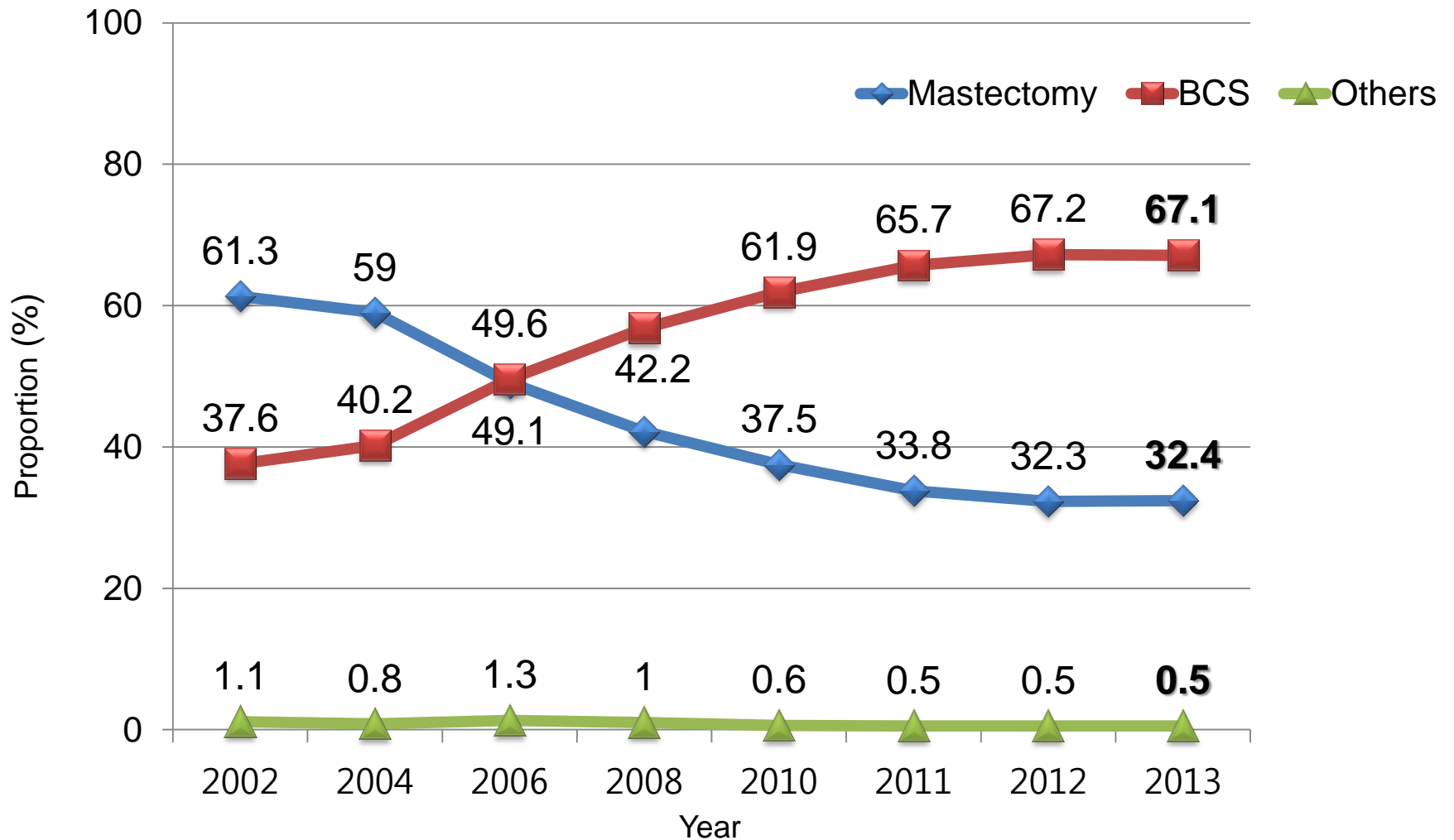
# Changes in the median age



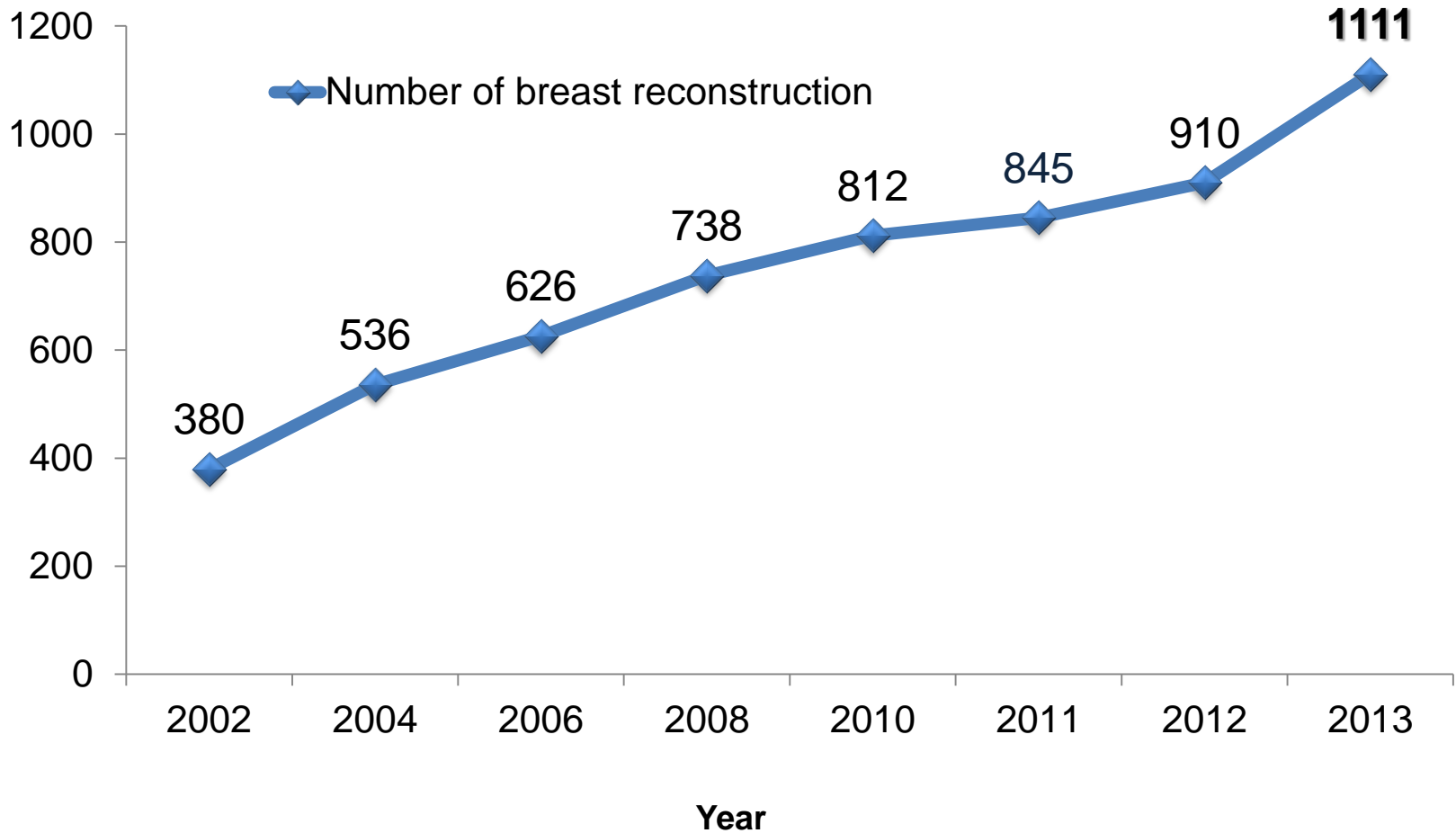
# Changes in the stage distribution



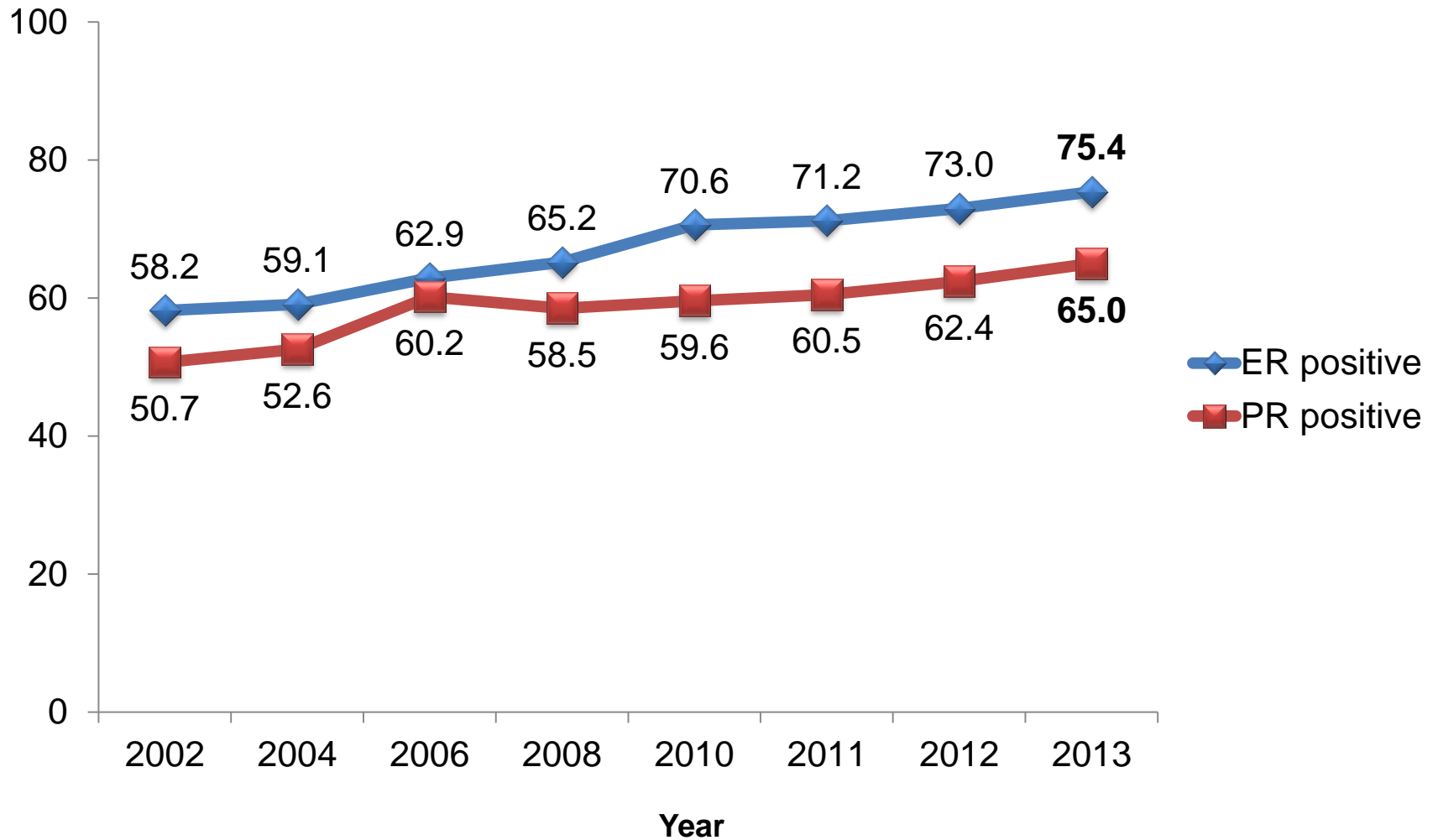
# Changes in the Surgical Management



# Changing trends of Breast reconstruction



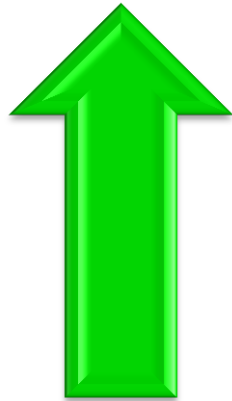
# Changing trends of Hormone receptor



# Conclusion

- Limitations
  - The survey data represented about 93% of invasive breast cancer cases of the National Cancer Registry.
  - The result of incidence was not age-standardized.

- Conclusion



**Breast cancer incidence**

**Breast conserving surgery (67.1%)**

**Early Stage Breast cancer**

**ER positive breast cancer (75.4%)**

**Breast reconstruction**

- The increase of crude rate of incidence had slowed down since 2010.

**Thank you for your attention !**