



## BACKGROUND

- In North Carolina, the proportion of Medicare beneficiaries enrolled in Medicare Advantage plans (MA) more than doubled from 2013 to 2021, increasing from 20% to 45% of all Medicare beneficiaries.
- There is little comparative information available about demographic and clinical characteristics of MA versus traditional fee-for-service (FFS) beneficiaries particularly as it relates to condition-specific populations such as breast cancer patients.

**Objective:** To compare demographic, tumor characteristics, and receipt of cancer specific treatment among North Carolina MA and FFS beneficiaries for the years 2015-2020

## METHODS

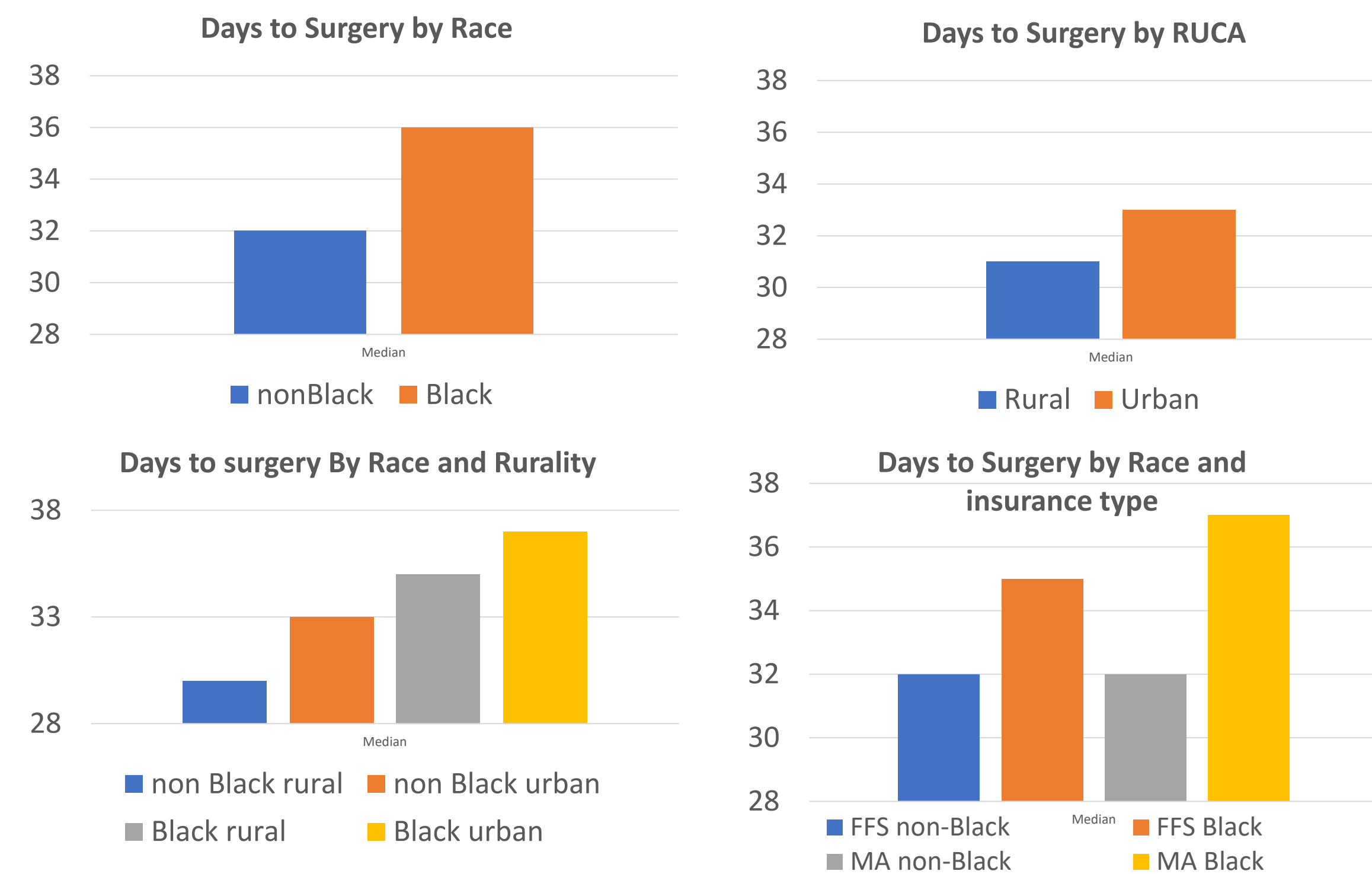
- We studied a population-based, retrospective cohort (n=8,116) of female breast cancer patients in North Carolina for the years 2015 to 2020 enrolled in either MA or FFS.
- Data provided by the Cancer Information and Population Health Resource, which links the North Carolina Central Cancer Registry to insurance claims and sociodemographic data.
- We included patients >18 years with Stage I-III breast cancer who received cancer-related surgery within 6 months of date of diagnosis.
- Patients were required to be enrolled in MA or FFS for 6 months before diagnosis, the month of- and 6 months after diagnosis.
- All patients received either Breast Conserving Surgery (BCS) or Mastectomy (MAST), and we calculated the most frequently occurring codes found on claims and the time in days between the initial cancer diagnosis and the time of their first surgery.

## RESULTS

**Table 1. Distribution of characteristics in Fee-for-service and Advantage enrollees (N=8,116)**

		FFS (n=4,942)		MA (n=3,174)	
		n	%	n	%
Age at diagnosis	Median, IQR	72	68, 77	71	68, 76
Race	Not Black	4,153	84.03	2,504	78.89
	Black	759	15.36	650	20.48
Hispanic Ethnicity	Not Hispanic	4,853	98.2	3,115	98.14
	Hispanic	32	0.65	33	1.04
Urban ZIP code	No	1,406	28.45	691	21.77
	Yes	3,536	71.55	2,483	78.23
SDI quarter	1	938	18.98	488	15.37
	2	1,221	24.71	803	25.3
	3	1,727	34.95	1,137	35.82
	4	1,008	20.4	719	22.65
Stage at diagnosis	1	3,833	77.56	2,488	78.39
	2	980	19.83	606	19.09
	3	129	2.61	80	2.52

**Figure 1. Median days to initial Surgery across patient characteristics**



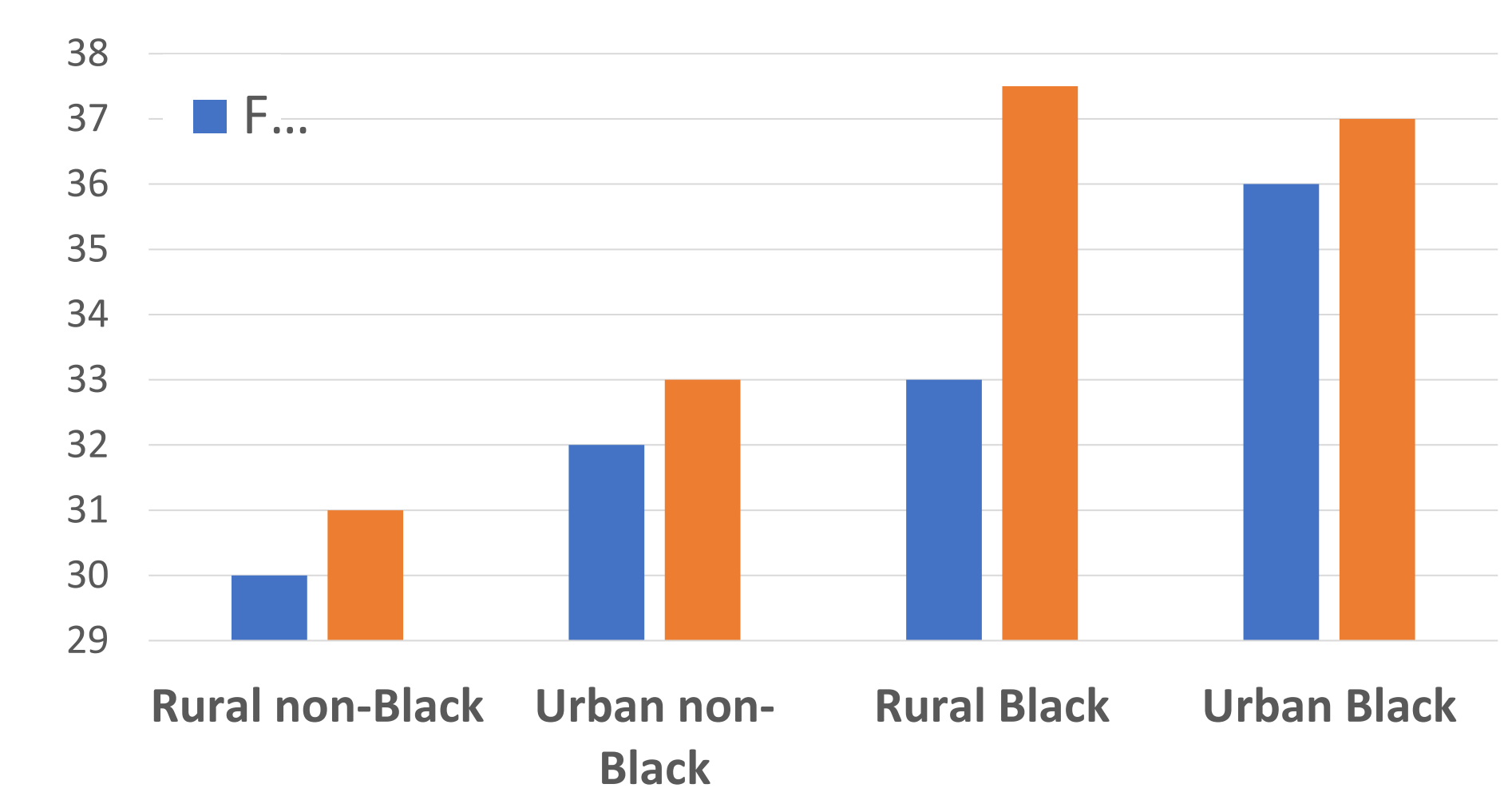
**Table 2. Frequency of breast conserving surgery codes by insurance.**

CODE	Label	FFS		MA	
		n	%	n	%
19301	Partial Mastectomy	4,690	80.97	2,995	81.59
19125	Excision Breast Lesion	573	9.89	360	9.81
19302	Partial mastectomy w/LN Removal	288	4.97	176	4.79
19120	Removal of Breast Lesion	199	3.44	108	2.94
19126	Excision, Addl Breast Lesion	20	0.35	15	0.41

**Table 3. Frequency of mastectomy surgery codes by insurance**

CODE	Label	FFS		MA	
		n	%	n	%
19303	Mastectomy, Simple Complete	1,041	63.63	598	63.35
19307	Mastectomy, Modified Radical	433	26.47	256	27.12
OHTT0ZZ	Resection of right breast, open approach	47	2.87	16	1.69
OHTU0ZZ	Resection of left breast, open approach	41	2.51	25	2.65
OHTV0ZZ	Resection of both breasts, open approach	18	1.1	11	1.17

**Figure 2. Median days to initial Surgery across insurance, race, and rurality**



## CONCLUSIONS

- We found racial and geographic enrollment differences between the two types of Medicare within North Carolina.
- Within insurance type, we observed racial differences in time to initial surgery.
- Further work is needed to examine whether the quality of services provided by these plan types are similar across race/ethnicity and geography.

## ACKNOWLEDGEMENTS

CIPHR is supported by the University of North Carolina Lineberger Comprehensive Cancer Center, with funding provided by the University Cancer Research Fund via the state of North Carolina. The findings and conclusion in this presentation are those of the authors and do not necessarily represent the views of the NC Department of Health and Human Services, Division of Public Health.