Real-World Evidence from Community Oncology: Assessing Secular Trends in Ovarian Cancer Diagnoses from 2014 to 2024

RWD152

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Background

- Ovarian cancer (OC) is a highly fatal gynecologic malignancy, often diagnosed late-stage due to limited screening
- While national US data show modest improvements in incidence and mortality, these may obscure differences across care settings
- Community oncology practices – where most patients are treated – can vary in demographics, resources, and access to innovation

Objective

- To examine real-world trends in OC incidence, treatment, and survival in community settings to assess equity, access, and value-based care

Methods

- Adults (≥18 years) diagnosed with OC between 2014 and 2024 were identified from a large network of US community oncology practices with 2,700+ providers and >1 million patients seen annually
- Demographic and clinical data were extracted from structured fields in iKnowMed, an oncology-specific electronic health record system
- Patient characteristics over time were evaluated descriptively
- Overall survival (OS) among patients with and without BRCA mutations (BRCAm) was evaluated using the Kaplan-Meier method

Results

- Over the 11-year time period, a total of 15,207 patients with OC were identified, with an average of 1,382 new cases each year (Figure 1 and Table 1)
- The proportion of patients aged 65+ years at diagnosis increased over time, from 43.8% in 2014–16 to 52.9% in 2023–24
- Over the same time period, the proportion of White patients declined from 77.6% to 61.5%, while the proportions of Black, Asian, and Other races increased slightly, from 5.0% to 5.5%, 3.1% to 3.6%, and 1.1% to 5.9%, respectively
- BRCA testing rose from 34.0% to 45.4%, with BRCA mutations identified in 18.5% of tested patients (n=220/1192) in 2023-2024
- Late-stage diagnoses increased, with Stage IV cases rising from 24.0% to 33.7% while Stage I, II and III cases declined, from 26.3% to 19.5%, 9.1% to 8.3%, and 40.6% to 38.6%, respectively
- OS curves for patients with BRCA testing and available follow-up data are shown in Figure 2. Five-year survival probability was 53.9% for the BRCAm group and 41.6% for the non-BRCAm group

Figure 1: Annual New Cases of Ovarian Cancer Between 2014 and 2024

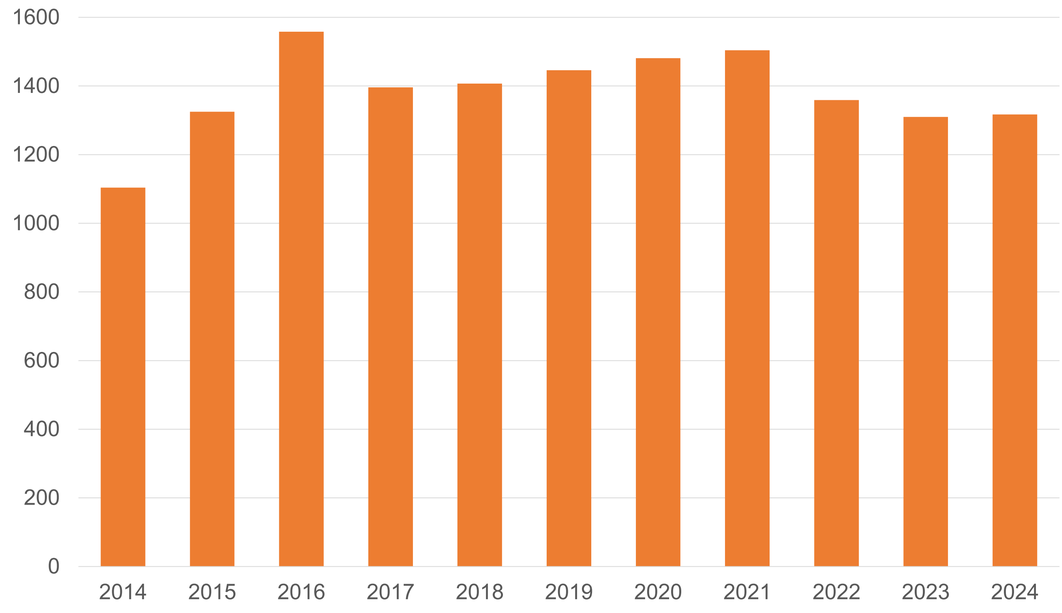

Figure 2: Overall Survival among Patients with Ovarian Cancer who Received BRCA Testing (N=9,485)

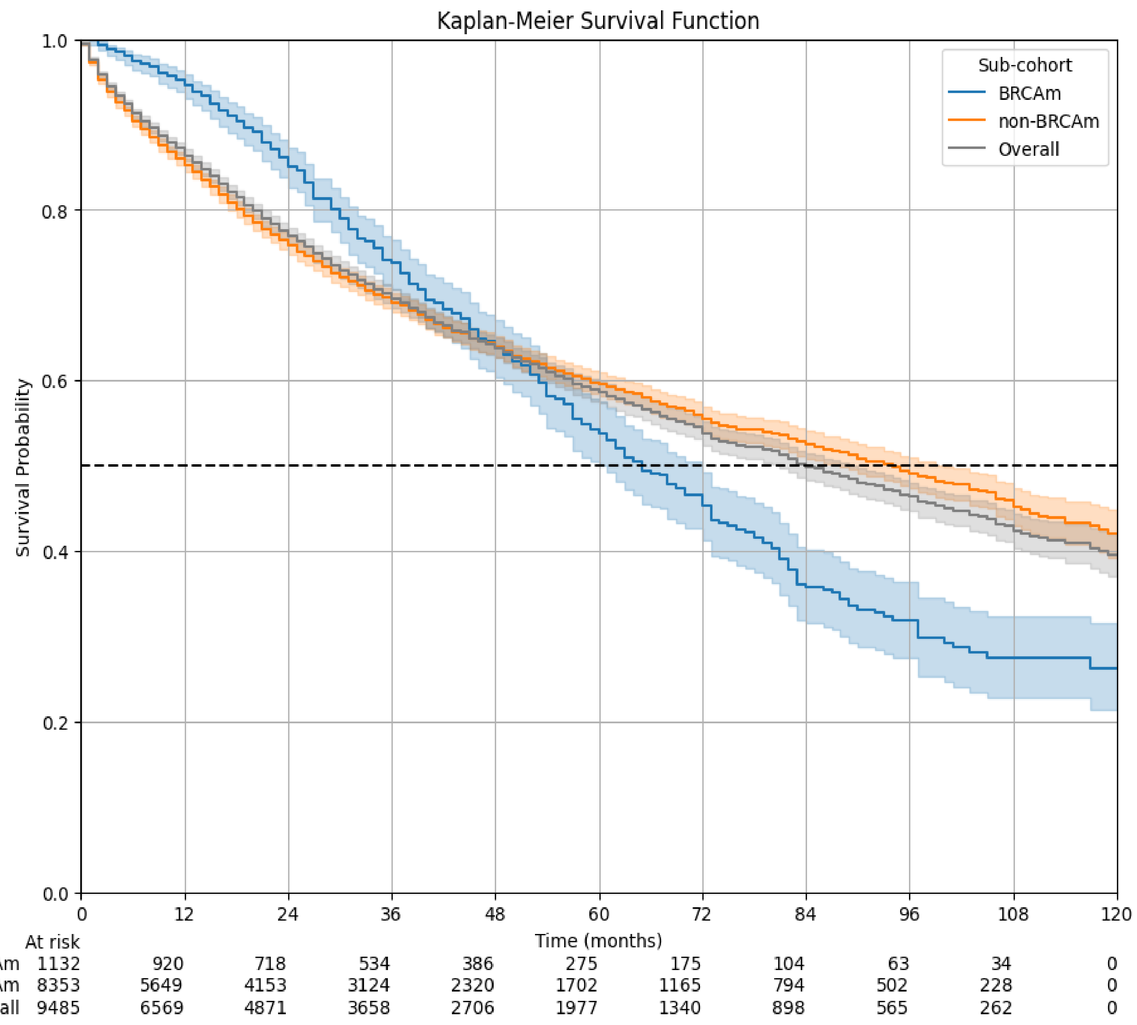

Table 1: Baseline Characteristics of Patients with Ovarian Cancer (N=15,207)

Variable	Overall (N=15,207)	2014-16 (N=3,987)	2017-19 (N=4,249)	2020-22 (N=4,344)	2023-24 (N=2,627)
Age Group					
18–24	153 (1.0%)	41 (1.0%)	46 (1.1%)	46 (1.1%)	20 (0.8%)
25–44	1471 (9.7%)	416 (10.4%)	421 (9.9%)	404 (9.3%)	230 (8.8%)
45–64	6337 (41.7%)	1784 (44.7%)	1773 (41.7%)	1792 (41.3%)	988 (37.6%)
65+	7246 (47.6%)	1746 (43.8%)	2009 (47.3%)	2102 (48.4%)	1389 (52.9%)
Race					
American Indian/Alaska Native	104 (0.7%)	36 (0.9%)	29 (0.7%)	29 (0.7%)	10 (0.4%)
Asian	467 (3.1%)	122 (3.1%)	105 (2.5%)	145 (3.3%)	95 (3.6%)
Black/African-American	853 (5.6%)	198 (5.0%)	238 (5.6%)	273 (6.3%)	144 (5.5%)
Native Hawaiian/Pacific Islander	25 (0.2%)	7 (0.2%)	6 (0.1%)	9 (0.2%)	3 (0.1%)
Other	469 (3.1%)	44 (1.1%)	79 (1.9%)	191 (4.4%)	155 (5.9%)
White	10370 (68.2%)	3093 (77.6%)	2995 (70.5%)	2667 (61.4%)	1615 (61.5%)
Unknown	2919 (19.2%)	487 (12.2%)	797 (18.8%)	1030 (23.7%)	605 (23.0%)
Ethnicity					
Hispanic/Latino	1214 (8.0%)	299 (7.5%)	307 (7.2%)	369 (8.5%)	239 (9.1%)
Not Hispanic/Latino	10946 (72.0%)	3129 (78.5%)	3120 (73.4%)	2918 (67.2%)	1779 (67.7%)
Unknown	3047 (20.0%)	559 (14.0%)	822 (19.3%)	1057 (24.3%)	609 (23.2%)
Stage at Diagnosis					
I	3578 (23.5%)	1050 (26.3%)	1035 (24.4%)	982 (22.6%)	511 (19.5%)
II	1358 (8.9%)	362 (9.1%)	374 (8.8%)	404 (9.3%)	218 (8.3%)
III	6131 (40.3%)	1620 (40.6%)	1758 (41.4%)	1739 (40.0%)	1014 (38.6%)
IV	4140 (27.2%)	955 (24.0%)	1082 (25.5%)	1219 (28.1%)	884 (33.7%)
ECOG Performance Status					
0	3470 (32.9%)	1048 (35.1%)	1018 (31.8%)	876 (32.1%)	528 (32.6%)
1	5693 (54.0%)	1556 (52.2%)	1753 (54.7%)	1498 (54.9%)	886 (54.6%)
2	1158 (11.0%)	314 (10.5%)	364 (11.4%)	303 (11.1%)	177 (10.9%)
≥3	218 (2.1%)	65 (2.2%)	69 (2.2%)	53 (1.9%)	31 (1.9%)
Unknown	1 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.0%)	0 (0.0%)
Body Mass Index Category					
Normal	5114 (34.0%)	1366 (34.5%)	1390 (33.0%)	1445 (33.7%)	913 (35.1%)
Obese	5142 (34.1%)	1310 (33.1%)	1456 (34.5%)	1521 (35.5%)	855 (32.9%)
Overweight	4335 (28.8%)	1144 (28.9%)	1245 (29.5%)	1193 (27.8%)	753 (29.0%)
Underweight	468 (3.1%)	140 (3.5%)	125 (3.0%)	126 (2.9%)	77 (3.0%)
BRCA Mutation Status					
Mutated	1144 (7.5%)	274 (6.9%)	328 (7.7%)	322 (7.4%)	220 (8.4%)
Not Detected	5354 (35.2%)	1083 (27.2%)	1657 (39.0%)	1642 (37.8%)	972 (37.0%)
Not Tested	8709 (57.3%)	2630 (66.0%)	2264 (53.3%)	2380 (54.8%)	1435 (54.6%)
Other HRR Mutation Status					
Mutated	719 (4.7%)	113 (2.8%)	205 (4.8%)	252 (5.8%)	149 (5.7%)
Not Detected/Reported	14488 (95.3%)	3874 (97.2%)	4044 (95.2%)	4092 (94.2%)	2478 (94.3%)

Conclusions

- This US-based analysis highlights the value of real-world evidence in understanding decentralized oncology care and alignment with national data.
- The community data reveal a shift toward older, more diverse patients, and later-stage diagnoses. These trends emphasize the need to improve screening and early detection, and to ensure equitable access to effective treatments in community settings.