

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



CONTENTS

Acknowledgements	2
Executive Summary	3
List of Abbreviations	5
Background and Rationale	6
Methodology	7
NCCCP Demonstration Project Highlights	14
Detailed NCCCP Activities for Each Approach	16
Conclusion and Next Steps for Improving Ovarian Cancer Outcomes	53
Assess the Burden and Define the Need	53
Choose the Relevant Strategies from the Action Plan	54
Identify and Mobilize Key Partners	54
Implement the Strategies	54
Measure Success through Evaluation	55
Ensure Program Improvement and Sustainability	55
References	58
Appendix A: 2016 NASEM Report Recommendations	63
Appendix B: Literature Search Methods	66
Appendix C: Possible Methods for Physician Payment Suggested by the Society of Gynecologic Oncology	68

ACKNOWLEDGEMENTS

CDC would like to thank the ovarian cancer demonstration sites and their key partners for their work on this project:

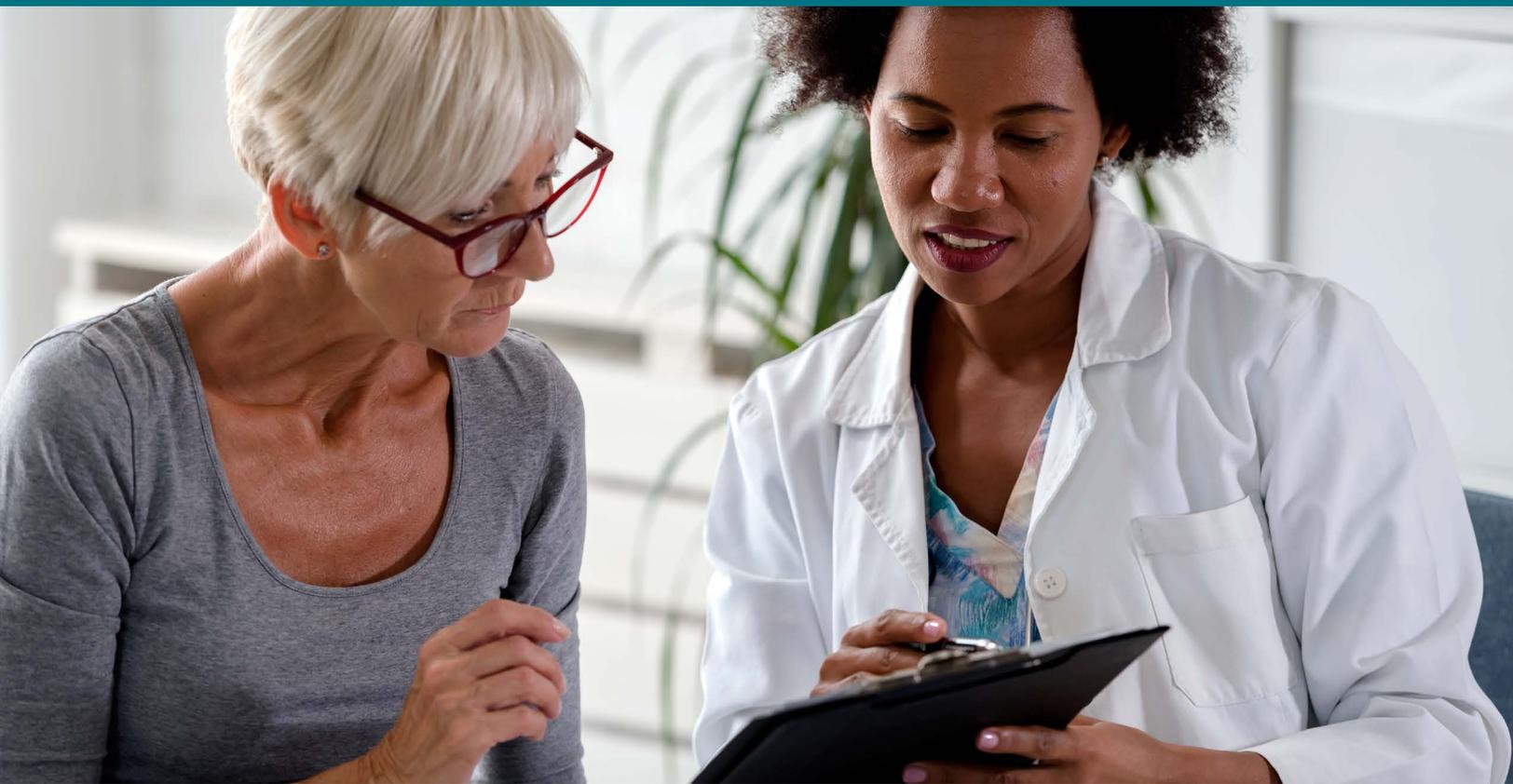
- Iowa Department of Public Health
 - Iowa Cancer Consortium
 - Iowa Cancer Registry
 - University of Iowa

- Michigan Department of Health and Human Services
 - Michigan Oncology Quality Consortium
 - Michigan Ovarian Cancer Alliance

- Rhode Island Department of Health
 - Rhode Island Ovarian Cancer Survivorship Task Force
 - The Partnership to Reduce Cancer in Rhode Island

Suggested Citation: Centers for Disease Control and Prevention. *Action Plan to Increase Receipt of Ovarian Cancer Care from a Gynecologic Oncologist*. US Dept of Health and Human Services; 2021.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



EXECUTIVE SUMMARY

CDC's National Comprehensive Cancer Control Program (NCCCP) brings together key partners and organizations to plan for reducing the number of community members who receive a diagnosis of or die of cancer. Numerous studies show that the overall survival for ovarian cancer increases when women receive treatment from a gynecologic oncologist; however, specific, evidence-based implementation strategies are needed for the NCCCP and other related community-based public health programs to improve ovarian cancer survival. A review of the literature yielded 25 promising approaches with potential for increasing receipt of ovarian cancer care from a gynecologic oncologist categorized under five strategies:

- Increasing knowledge and awareness of the role and importance of gynecologic oncologists.
- Improving models of care.
- Improving payment structures.
- Improving and increasing insurance coverage for gynecologic oncologist care.
- Expanding or enhancing the gynecologic oncologist workforce.

From April 2019 to December 2020, ICF was contracted by CDC, engaged three NCCCP awardees—Iowa Department of Public Health, Michigan Department of Health and Human Services, and Rhode Island Department of Health—to conduct and evaluate activities that align with the strategies described above. The

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

purpose of this demonstration project was to:

- Deepen the evidence base for strategies that have promise for increasing gynecologic oncologist treatment for ovarian cancer.
- Increase receipt of care by a gynecologic oncologist among women with ovarian cancer.
- Demonstrate how NCCCP awardees are uniquely positioned in the local community to put into action environmental and health system change strategies that support best practices in ovarian cancer care.

The demonstration sites implemented seven approaches from three strategic categories: increasing knowledge and awareness of the role and importance of gynecologic oncologists among health care providers and patients, improving models of care, and expanding or enhancing the gynecologic oncologist workforce. Evaluation data indicate that these approaches were well received among the target audiences. The evaluation findings also showed short-term increases in providers' knowledge, awareness, abilities, and intentions related to referring ovarian cancer patients to a gynecologic oncologist for care and treatment.

This demonstration project also resulted in the creation of resources and partnerships that improved patients' and providers' knowledge and awareness of the role and importance of gynecologic oncologists and strengthened providers' intentions and abilities to refer

patients with suspected or diagnosed ovarian cancer to a gynecologic oncologist. The intent is that these changes will result in increased referrals and promote improved adherence to standard treatment protocols which can result in longer survival for all women diagnosed with ovarian cancer in the three states that participated in the demonstration. The project also provided CDC with initial data for the development of best practices to increase ovarian cancer treatment adherence. Future data on the longer-term use and effect of these activities can further contribute to the evidence base.

This Action Plan provides guidance to NCCCP awardees on how to increase referrals to gynecologic oncologists within their coalitions and by their partners. NCCCP awardees can adapt and use these strategies across different settings to increase survival from ovarian cancer. This document benefits NCCCP program directors and staff from states, territories, and tribal organizations who are interested in reducing the effects of ovarian cancer in their population. It also benefits NCCCP coalition members and partners, both internal and external, who are interested in conducting community-based activities to increase access and referrals to gynecologic oncologists for ovarian cancer treatment. A [Toolkit to Increase Receipt of Ovarian Cancer Care from a Gynecologic Oncologist](https://www.cdc.gov/cancer/ovarian/gynecologic-oncologist/) (available at <https://www.cdc.gov/cancer/ovarian/gynecologic-oncologist/>) supplements this Action Plan.

LIST OF ABBREVIATIONS

Abbreviations commonly used in this Action Plan:

CCC	Comprehensive Cancer Control
CDC	US Centers for Disease Control and Prevention
CME	Continuing medical education
IDPH	Iowa Department of Public Health
MDHHS	Michigan Department of Health and Human Services
MIOCA	Michigan Ovarian Cancer Alliance
MOQC	Michigan Oncology Quality Consortium
NCCCP	National Comprehensive Cancer Control Program
OB/GYN	Obstetrician-gynecologist
RIDOH	Rhode Island Department of Health
UIHC	University of Iowa Hospitals and Clinics

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



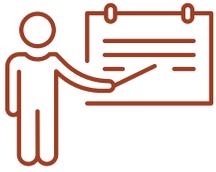
BACKGROUND AND RATIONALE

Ovarian cancer is the fifth leading cause of cancer death among women in the United States¹ and the second most common type of female reproductive cancer.¹ A woman's lifetime risk of developing ovarian cancer is 1 in 78,^{2,3} and women with a family history of ovarian, breast, or colon cancer may be at greater risk.³ Black women have a substantially lower survival rate (35% between 2007 and 2013) from ovarian cancer than non-Hispanic White women (47% between 2007 and 2013).⁴

No evidence-based early detection or screening methods exist for ovarian cancer; however, treatment protocols can be very effective at increasing ovarian cancer survival if standard recommendations are followed.

Evidence-based standard care is defined as receipt of surgery, chemotherapy, and testing for germline mutations.⁵ One significant predictor of whether women will receive standard care is if a gynecologic oncologist provides or directs their treatment. To improve ovarian cancer research and care, in 2016 the National Academies of Sciences, Engineering, and Medicine (NASEM, formerly the Institute of Medicine) developed a comprehensive report⁷ on ovarian cancer and provided 11 recommendations (see Appendix A) to improve diagnosis and treatment of ovarian cancer. Specifically, the report identified receipt of care from a gynecologic oncologist as “a key message that is ready for dissemination” and recommended evaluating newer pathways to determine effectiveness.⁷

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



METHODOLOGY

In late 2018, CDC conducted a tailored search of published and gray literature to identify facilitators and barriers to receipt of care by a gynecologic oncologist among women with ovarian cancer. The search also examined promising strategies with the potential for increasing receipt of ovarian cancer care from a gynecologic oncologist. A replicated search conducted in early 2021 found new literature and updated statistics related to ovarian cancer. Appendix B describes the full methods for the search and review process.

Facilitators to Receipt of Care by a Gynecologic Oncologist among Women with Ovarian Cancer

Facilitators to receipt of care by a gynecologic oncologist among women with ovarian cancer

- Awareness of the services provided by gynecologic oncologists.⁶
- Patient appreciation for the expertise of specialists.⁷
- Private health insurance.⁸
- Strong social networks whose members have greater knowledge of and access to advances in health care.^{7,8}
- Patient understanding of the referral process (i.e., patients with some college education are less likely to rely on a health care provider when seeking a referral).⁷
- Access to support services (e.g., patient navigators and social workers).⁹
- Increased awareness about use of gynecologic oncologists over the last decade may make it more likely for women to travel longer distances to see a gynecologic oncologist.¹⁰
- Increased comorbidities, which increase the likelihood of receiving specialist care.¹¹
- Experience of obstetrician-gynecologists (OB/GYNs) in gynecology surgery (OB/GYNs may be more likely to refer patients to a gynecologic oncologist if they have a lower comfort or experience level operating on patients with ovarian masses).¹²
- Referral by a physician.⁷
- Patient comfort with navigating the health care system and being a self-advocate.^{7,13}
- Proximity to a cancer center.¹⁴
- Increased numbers of gynecologic oncologist practice sites in the United States from 2015 to 2019.¹⁵

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Barriers to Receipt of Care by a Gynecologic Oncologist among Women with Ovarian Cancer

Patient-level barriers to receipt of care by a gynecologic oncologist among women with ovarian cancer

- Older age.^{5,11,16,17,18}
- People from some racial and ethnic groups.^{5,16,19,20,21,22}
- Low socioeconomic status.^{5,16,17,19,21,23}
- Rural residence.^{5,9,11,14,16,18,21}
- Third-party payers.^{16,24}
- Financial considerations.²⁵
- Travel time/distance to gynecologic oncologist.^{9,10,11,14,22,24,25,26,27}
- Lack of awareness and knowledge of the importance of receiving care from a gynecologic oncologist.^{6,7,10,22,28,29,30}
- Patient perception that seeking a second opinion would be disrespectful.¹⁸
- Patient preference for ovarian cancer care.³¹
- Language and cultural differences.³⁰
- Negative cultural connotation associated with cancer diagnosis.³²
- Lack of insurance/lack of coverage for services.^{7,9,30,33}

Provider-level barriers to receipt of care by a gynecologic oncologist among women with ovarian cancer

- Physician's lack of awareness of gynecologic oncologist resources.^{16,33}
- Gynecologists' attitudes or perceptions that they can perform surgery themselves; a referral means the gynecologist is not involved in their patients' care.²⁵
- Negative attitudes of gynecologic oncologists about practicing in rural regions.²⁶
- Shortage of available gynecologic oncologists.^{29,30,31,32,33}
- Delayed diagnosis due to physician lack of awareness of ovarian cancer symptoms and dismissal of symptoms.¹³
- Process to refer a patient and transfer medical records to gynecologic oncologist takes a long time and requires a lot of effort on behalf of the referring provider.²⁹
- Provider perception that surgery wait times are too stressful for patients.²⁹
- Lack of follow-up communication by gynecologic oncologists to referring physician.²⁹

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

System-level barriers to receipt of care by a gynecologic oncologist among women with ovarian cancer

- Lack of capacity of oncology centers.^{24,25}
- Variation in access and use of National Cancer Institute (NCI) cancer centers vs. community care centers.¹⁰
- Limited availability of training programs dedicated to gynecologic oncology (for low-to-middle income countries).³⁴
- Neighborhood disadvantage, which produces conditions that challenge health-seeking behavior.⁸



Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Promising Strategies with the Potential for Increasing Receipt of Ovarian Cancer Care from a Gynecologic Oncologist

Increasing Knowledge/Awareness of the Role and Importance of Gynecologic Oncologists

- **Provider education** – Educating health care providers regarding ovarian cancer symptomology and the role and importance of gynecologic oncologists to increase the likelihood that women with ovarian cancer are referred to a gynecologic oncologist for treatment.^{5,7,11,13,20,33,34,35,36,37} It may be useful to provide education to specific subspecialties of health care providers (gynecologists, OB/GYNs, primary care physicians, and family practitioners). For example:
 - Gynecologists in community hospitals reported reluctance to provide routine referrals of all women with ovarian cysts to oncology centers because it narrows their range of clinical activities.²⁵
 - In addition, another study found that fewer than 50% of primary care physicians refer women with suspected ovarian cancer directly to gynecologic oncologists. Among primary care physicians, those in family practice were significantly less likely than internal medicine counterparts to refer to gynecologic oncologists.^{36,38}
 - A surgical referral to a gynecologic oncologist was 67% less likely in women 76-89 years of age compared with women 18-45 years of age.¹⁸
 - OB/GYNs with more experience in gynecology surgery were more accurate in diagnosing and appropriately referring patients to a gynecologic oncologist.¹²
- **Patient education** – Educating patients regarding the role and importance of gynecologic oncologists to increase the likelihood that women with ovarian cancer will seek referral to a gynecologic oncologist for treatment.^{9,10,17,22,35} Educating women to seek a second opinion may increase the likelihood of women being referred to a gynecologic oncologist.²⁴
- **General public education** – Educating the public to increase the likelihood that women with ovarian cancer or their caregivers ask to be referred to a gynecologic oncologist for treatment.^{3,7,13,33}
- **Partnership development and enrichment** – Partnering with local, state, and national patient advocacy groups and community organizations to educate providers, patients, and the public about optimal treatment for gynecologic cancers.^{7,39}

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Improving Models Of Care

- **Centralization/regionalization of care** – Referring women by less-specialized hospitals within a network, region, or defined catchment area to centers with higher patient volumes and interdisciplinary collaboration to receive care for ovarian cancer. Under this model of care, specialized units with interdisciplinary collaboration among a team of multiple specialized physicians provide treatment to referred women.^{9,16,21,24,26,30,40,41,42,43,44,45,46,47}
- **Guest operations** – Establishing relationships wherein gynecologic oncologists from oncology centers travel to community hospitals to perform cancer surgery with local gynecologists.²⁵ Similar to this idea, creating traveling systems or mobile clinics allowing for treatment by gynecologic oncologist cancer specialists in rural/shortage areas when needed.^{9,48,49}
- **Physician sharing in public and private settings** – Using a shared physician practice model in which specialists and subspecialists see patients and conduct procedures in both public and private hospitals.⁴⁷
- **Patient-centered medical home model** – Coordinating care for a woman with a suspected or diagnosed gynecologic cancer by using a single health care provider (a “team captain”) with multidisciplinary training in gynecologic cancer. In this model, the team captain leads a group of health care professionals (the team), all working together on behalf of the woman facing a gynecologic cancer diagnosis.⁵⁰
- **Multidisciplinary care** – Using a model of multidisciplinary care for ovarian cancer in which practitioners from multiple specialties create a consolidated ovarian cancer care plan that includes treatment recommendations from all care team members.^{42,46,50,51,52}
- **Referral systems** – Developing, enhancing, and using referral systems to ensure patients with ovarian cancer have access to high-volume surgeons and centers with appropriate ancillary services.^{17,24,47} Specific approaches, such as the use of electronic health systems^{20,50} and academic detailing, may make easier the development and use of these referral systems.
- **Patient navigation** – Assisting patients with communication and transportation needs following a diagnosis could help increase the numbers of women receiving care from gynecologic oncologists.^{5,9,14,33,35}
- **Telemedicine** – Using phone and/or videoconferencing to allow gynecologic oncologists to consult on patient cases. This approach is especially useful in geographic areas where the number of available gynecologic oncologists is low.^{5,9,10,17,21,33,46,50,53,54}
- **Centers of excellence in gynecologic oncology** – Providing incentives for hospitals to become centers of excellence in gynecologic oncology.⁵⁰
- **Quality improvement plan** – Implementing quality indicators through a formal quality improvement program to increase adherence to guidelines, especially at high-volume centers.⁵⁵

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Improving Payment Structures

- **Reimbursement policies that discourage receipt of ovarian cancer care from nonspecialized health care providers** – Changing reimbursement policies to discourage providers that do not have specialty training in gynecologic oncology from providing care to women with gynecologic cancer.⁵⁰
- **Reimbursement policies that encourage multidisciplinary care** – Implementing reimbursement policies to reward optimization of the care team process. The team captain receives compensation for coordinating the care required for women with gynecologic cancer. Ancillary service providers receive compensation based on the value of provided care. Such efforts are likely to decrease the cost of care due to better utilization of health care resources, avoidance of unnecessary diagnostic studies, and reduction in emergency room visits and hospitalizations.⁵⁰
- **Payment methods that ensure women with gynecologic cancer receive the highest quality, well-coordinated care** – Revising payment structures for ovarian cancer treatment to align with the standard of care, with an emphasis on offering care by providers with specialized training in gynecologic oncology. This strategy includes coordination of care, adherence to management guidelines, meeting meaningful quality parameter benchmarks, and achieving good patient satisfaction. Appendix C lists potential solutions that can be tested for their effect on ensuring women with gynecologic cancer receive the highest quality, well-coordinated care.⁵⁰ Appendix C also describes multiple proposed solutions to optimize payment systems.

Improving/Increasing Insurance Coverage for Gynecologic Oncologist Care

- **Allow appeals for insurance coverage denials** – Allowing gynecologic oncologists to appeal coverage denials. Other subspecialties have this option.⁹
- **Cover travel expenses for patients who must travel to receive gynecological cancer treatment** –Subsidizing patients' travel costs for gynecological cancer treatment.⁴⁸
- **Match referrals to a patient's insurance coverage** – Referring patients to a center that accepts their insurance for gynecological cancer treatment.²⁰

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Expanding/Enhancing the Gynecologic Oncologist Workforce

- **Fellowship training programs** – Expanding fellowship training programs to include the gynecologic oncology specialty as a means of increasing this specialized workforce.^{16,20,31,46,56}
- **Academic detailing** – Increasing the number of physicians who specialize in gynecologic oncology and/or influencing changes in practice through peer-to-peer educational outreach. With its roots in pharmaceutical detailing, this approach seeks to improve physicians' prescribing practices, improve care quality, and build priority for clinician and leadership change.⁵
- **Promotion of the gynecologic oncology specialty within medical schools** – Encouraging medical schools to specifically promote the gynecologic oncology specialty within their programs to increase the volume of gynecologic oncologists within the United States.⁵⁷
- **Use of survivors in teaching students** – Promoting interaction between ovarian cancer survivors and medical/health care students in a classroom setting to enhance students' ability to provide higher quality care. For example, Survivors Teaching Students® is a curriculum the Ovarian Cancer Research Alliance developed that brings ovarian cancer survivors and caregivers into medical education programs to educate future health care providers about ovarian cancer disease facts through sharing of stories about diagnosis, treatment, survival.⁵⁸
- **Hospital credentialing policies**– Reviewing and revising hospital credentialing policies to encourage the delivery of ovarian cancer care and treatment by providers with specialty training in gynecologic oncology.⁵⁰

NCCCP DEMONSTRATION PROJECT HIGHLIGHTS

From April 2019 to December 2020, three NCCCP awardees were contracted to conduct and evaluate activities that align with the strategies described above. These awardees are the Iowa Department of Public Health (IDPH), the Michigan Department of Health and Human Services (MDHHS), and the Rhode Island Department of Health (RIDOH). The purpose of this demonstration project was to:

- **Deepen the evidence base for strategies that have promise for increasing gynecologic oncologist treatment for ovarian cancer.** NCCCP awardees chose approaches from two or more strategies for the demonstration project. Ongoing monitoring and evaluation of the strategies conducted by the three sites resulted in data that will contribute to the evidence base for approaches to increase guideline adherence for ovarian cancer treatment. These data will be useful to all NCCCP awardees in addressing ovarian cancer in their areas.
- **Increase receipt of care by a gynecologic oncologist among women with ovarian cancer.** This project aimed to increase receipt of care by a gynecologic oncologist for women diagnosed with ovarian cancer within the three participating sites. As noted previously, receiving treatment from a gynecologic oncologist at a high-volume hospital or cancer center is a significant predictor of whether a woman with ovarian cancer will receive standard of care. Access to specialized providers and facilities is associated with better health outcomes⁷ and will ultimately result in longer survival for all women diagnosed with ovarian cancer in these sites.
- **Demonstrate how NCCCP awardees are uniquely positioned in the local community to administer environmental and health system change strategies that support best practices in ovarian cancer care.** NCCCP practitioners are uniquely positioned to use this plan effectively because of their demonstrated outreach, ability to engage clinicians in their community, focus on improving quality and duration of life among those diagnosed with cancer, and foundational methodology of using environmental and health system change strategies to address emerging issues in cancer control.³⁰ Findings from this demonstration provide the field with valuable information about NCCCP awardees' ability to administer change strategies for increasing receipt of ovarian cancer treatment by gynecologic oncologists.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Strategic Approaches Implemented by Demonstration Sites

Strategy 1: Increasing Knowledge/Awareness of the Role and Importance of Gynecologic Oncologists

	Iowa	Michigan	Rhode Island
Provider education	YES	YES	YES
Patient education	YES	YES	NO
General public education	YES	YES	YES
Partnership development and enrichment	NO	NO	YES

Strategy 2: Improving Models of Care

	Iowa	Michigan	Rhode Island
Referral systems	YES	NO	NO
Patient navigation	NO	YES	NO

Strategy 5: Expanding or Enhancing the Gynecologic Oncologist Workforce

	Iowa	Michigan	Rhode Island
Use of survivors in teaching students	NO	NO	YES

DETAILED NCCCP ACTIVITIES FOR EACH APPROACH



Provider Education - Educational Handout

Patients with Ovarian Cancer: Improving Health Outcomes	
Site	Iowa Department of Public Health
Activity type	Educational handout
Intended audience	Health care providers (e.g., primary care physicians, OB/GYNs, general surgeons) in Iowa.
Purpose	<p>To inform health care providers about:</p> <ul style="list-style-type: none"> ▪ The role and importance of gynecologic oncologists in treating women diagnosed with ovarian cancer. ▪ Formative study findings related to patient-reported barriers and factors that promote receipt of guideline-recommended treatment for ovarian cancer. ▪ Options and processes for referring patients to gynecologic oncologists within the University of Iowa Hospitals and Clinics (UIHC).
Implementation activities	<ul style="list-style-type: none"> ▪ Used findings from formative study focus groups and interviews with patients and health care providers to define the focus and content for the handout. ▪ Shared initial draft with health care providers and subject matter experts (health department staff and CDC) for review; received written feedback. ▪ Conducted cognitive interviews via Zoom with health care providers to test material and messaging. ▪ Purchased list of OB/GYNs in Iowa to recruit health care providers for the cognitive interviews.
Role of partners involved	<p>University of Iowa, Iowa Cancer Consortium, Iowa Cancer Registry</p> <ul style="list-style-type: none"> ▪ Developed purpose and objectives. ▪ Drafted and revised material. ▪ Conducted cognitive testing to guide revisions. <p>UIHC</p> <ul style="list-style-type: none"> ▪ Provided subject matter experts to review and provide feedback on draft handout.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patients with Ovarian Cancer: Improving Health Outcomes	
Promotion	Purchased a list of Iowa OB/GYNs to create a listserv for sharing the handout and promoted the handout during the <i>Ovarian Cancer in Iowa</i> webinar conducted on October 16, 2020.
Evaluation	Collected process evaluation data, including: <ul style="list-style-type: none">▪ Number of interviews conducted.▪ Feedback received during cognitive interviews.
Results	<ul style="list-style-type: none">▪ Conducted three interviews with OB/GYNs to obtain feedback on the provider handout.▪ Received feedback during cognitive interviews:<ul style="list-style-type: none">— Providers described the handout as “succinct,” “relevant,” and “easy to read.”— One interviewee recommended highlighting the importance of referring women to a gynecologic oncologist for treatment planning in addition to surgical care.— Providers noted the textbox listing nearby health centers with practicing gynecologic oncologists is useful, especially for providers in smaller towns and rural areas.— Interviewees found the web-based resources included on the handout beneficial to patients.
Sustainability	The handout is available on the Iowa Cancer Consortium website.
Materials available	Patients with Ovarian Cancer: Improving Health Outcomes [PDF-310KB] (https://canceriowa.org/wp-content/uploads/2021/02/Ovarian-Cancer-Handout-for-Providers.pdf)

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education - Checklist

Development of Provider Checklist	
Site	Michigan Department of Health and Human Services
Activity type	Checklist
Intended audience	Primary care providers, obstetrician/gynecologists, and general surgeons.
Purpose	<p>The purpose of the checklist was to increase providers:</p> <ul style="list-style-type: none"> ▪ Knowledge and awareness related to ovarian cancer risk and the importance of referrals to a gynecologic oncologist for ovarian cancer treatment. ▪ Intent to make referrals when necessary.
Implementation activities	<ul style="list-style-type: none"> ▪ Convened a team of 16 providers from gynecologic oncologist practices in Michigan to develop content and provide feedback on checklist drafts. ▪ Presented the checklist at bi-annual Quality Initiative Meeting to solicit feedback from participating gynecologic oncologists. ▪ Incorporated feedback into checklist.
Role of partners involved	<p>Michigan Oncology Quality Consortium (MOQC)</p> <ul style="list-style-type: none"> ▪ Developed and revised checklist. ▪ Convened group of 16 providers from Michigan gynecologic oncologist practices. ▪ Convened and led bi-annual Quality Initiative Meeting.
Promotion	<ul style="list-style-type: none"> ▪ Pre-marketed checklist to providers attending MOQC Quality Initiative meetings and the Michigan Surgical Quality Collaborative meeting; attendees provided feedback on the checklists. ▪ Posted to MOQC and MDHHS ovarian cancer webpages. ▪ Conducted social media campaign via Facebook™ and Google™ text based advertisements that appeared on the search engine results page to promote resources and tools developed from this demonstration project. The advertisements directed readers to the MDHHS ovarian cancer webpage, where the checklist is available for download.
Evaluation	<p>Process evaluation</p> <ul style="list-style-type: none"> ▪ Number of providers who attended MOQC’s Quality Initiative meetings and provided checklist feedback. ▪ Number of checklists downloaded from the MDHHS website. ▪ Feedback solicited from providers during Quality Initiative meeting.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Development of Provider Checklist

Results

Process evaluation

- 16 providers attended both the May and December 2020 MOQC Quality Initiative meetings.
- 104 providers attended the Michigan Surgical Quality Collaborative meeting in December 2020.
- Themes identified from the gynecologic oncologists' review of the checklist:
 - The checklist could help reduce the financial effect on patients during their transition of care.
 - The checklist could help reduce emotional and psychological effects on patients.
- 8 checklist downloads from the MDHHS website in November 2020 and 3 in December 2020.

Sustainability

- Both MOQC and MDHHS webpages provide access to the checklist.
- MOQC is working with Blue Cross and Blue Shield of Michigan to share the checklist with their network of primary care providers.
- MOQC plans to present the checklist during Michigan provider meetings in 2021

Materials available

Provider Checklist

[PDF-524KB] (<https://moqc.org/wp-content/uploads/Final-Physician-MOQC-OvarianCancerChecklist.pdf>)

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education - Report

Patients with Ovarian Cancer: Improving Health Outcomes	
Site	Iowa Department of Public Health
Activity type	Promotion and dissemination of the 2020 Cancer in Iowa report. ^a
Intended audience	Health care providers, patients, public.
Purpose	Increase knowledge and awareness of ovarian cancer, including staging, screening, prevention, ongoing research, and treatment for ovarian cancer and the importance of receipt of care by a gynecologic oncologist.
Implementation activities	<p>The report is typically released during a press conference each year in March. It receives wide newspaper, television, and radio coverage, and is streamed live via Facebook™. Due to the emerging COVID-19 pandemic, the Iowa team cancelled the press conference and distributed the report through the following alternative methods.</p> <ul style="list-style-type: none"> ▪ Posted report on the Iowa Cancer Registry website. ▪ Mailed and emailed report to community members and partners in Iowa. ▪ Featured report on the Iowa Cancer Consortium website during Ovarian Cancer Awareness Month (September 2020). ▪ Included link to report when sharing the patient and provider handouts with their partners. ▪ Posted promotional messaging and link on Twitter™.
Role of partners involved	<p>Iowa Cancer Registry</p> <ul style="list-style-type: none"> ▪ Posted report on its website. ▪ Provided report and link to be shared by other partners. <p>University of Iowa</p> <ul style="list-style-type: none"> ▪ Disseminated report and/or link to partners via mail, email, and Twitter™. ▪ Promoted report to participants during the Ovarian Cancer in Iowa webinar. <p>Iowa Cancer Consortium</p> <ul style="list-style-type: none"> ▪ Featured report on their website during Ovarian Cancer Awareness month.
Promotion	See implementation activities above.
Evaluation	Tracked reach to Twitter™ followers.
Results	<ul style="list-style-type: none"> ▪ Sent to 1,581 email addresses. ▪ Shared with 720 Twitter™ followers. ▪ Downloaded 761 times as of April 19, 2021.
Materials available	2020 Cancer in Iowa Report [PDF-1.1MB] (https://shri.public-health.uiowa.edu/wp-content/uploads/2020/03/2020-SHRI-Annual-Report.pdf)

^a The demonstration project supported promotion of the *Cancer in Iowa* report, which is developed annually.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education - Toolkit

Rhode Island Ovarian Cancer Resources Toolkit	
Site	Rhode Island Department of Public Health
Activity type	Toolkit
Intended audience	Physicians and physician specialists (gynecologists and gastroenterologists), physician assistants, nurse practitioners, registered nurses, residents, fellows, medical students, and other allied health professionals engaged in the care of women.
Purpose	To empower primary care providers and others involved with the medical care of women to recognize the symptoms of ovarian cancer and to expedite the diagnosis and referral of patients to a gynecologic oncologist.
Implementation activities	<ul style="list-style-type: none"> Identified relevant, evidence-based care guidelines, tools, literature, and other patient and provider resources. Reviewed potentially relevant resources to determine inclusion by majority consensus. Consolidated resources into toolkit.
Role of partners involved	<p>Rhode Island Ovarian Cancer Task Force</p> <ul style="list-style-type: none"> Identified potentially relevant resources. Collaborated with RIDOH to determine inclusion of resources.
Promotion	Disseminated to individuals who registered to participate in the roundtable event and via The Partnership to Reduce Cancer in Rhode Island email listserv.
Evaluation	<p>Process evaluation</p> <ul style="list-style-type: none"> Number of webpage visitors. Number of individuals who attended the roundtable event and who are on The Partnership to Reduce Cancer in Rhode Island email list.
Results	<p>Process evaluation</p> <ul style="list-style-type: none"> Between December 2, 2020 (date published) and March 1, 2021, 56 individuals visited the RIDOH Comprehensive Cancer Control webpage, where the toolkit is available for download. Distributed to 73 individuals who registered for roundtable event. Distributed to 467 members of The Partners to Reduce Cancer in Rhode Island via email.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Rhode Island Ovarian Cancer Resources Toolkit

Sustainability

The toolkit is available for download on the RIDOH CCC Program's and Partnership to Reduce Cancer in Rhode Island's websites.

Materials available

[Rhode Island's Ovarian Cancer Resources Toolkit](https://health.ri.gov/publications/toolkits/2020RI-Ovarian-Cancer-Resources.pdf)
[PDF-243KB] (<https://health.ri.gov/publications/toolkits/2020RI-Ovarian-Cancer-Resources.pdf>)



Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education - Webinar

Ovarian Cancer in Iowa	
Site	Iowa Department of Public Health
Activity type	Webinar
Intended audience	Physicians, physician-residents, and physician fellows in primary care, family medicine, obstetrics and gynecologic, oncology, surgery, and general medicine; nurse practitioners; physician assistants; medical students; and other allied members of the health care field.
Purpose	<p>After participation in the webinar, the learner should be able to:</p> <ul style="list-style-type: none"> Describe the epidemiology of ovarian cancer. Identify the need for referral of ovarian cancer patients to gynecologic oncologists for surgical care. Discuss the benefits of a surgical referral to a gynecologic oncologist for ovarian cancer patients. Employ new resources available in Iowa to discuss the importance of surgical care by a gynecologic oncologist with patients with confirmed or suspected ovarian cancer.
Implementation activities	<ul style="list-style-type: none"> Used findings from formative study focus groups and interviews with patients and health care providers to define webinar objectives and content. Worked with Brown University Office of Continuing Medical Education (Brown CME) to produce and host the webinar and provide CME credit at no cost to its participants.
Role of partners involved	<p>University of Iowa, Iowa Cancer Consortium, Iowa Cancer Registry</p> <ul style="list-style-type: none"> Developed purpose and objectives. Drafted and revised material. Marketed the live and archived event to health care providers. Delivered training during live event. <p>Brown University Office of CME</p> <ul style="list-style-type: none"> Produced and hosted the webinar. Provided CME credit at no cost to its participants.
Promotion	Purchased a list of Iowa OB/GYNs to create a listserv for event promotion. Brown CME also promoted the event on its website.
Evaluation	<ul style="list-style-type: none"> Required a pre-event survey for the live event. Required a post-test survey for the live and on demand sessions only if requesting CME credit (did not require completion of all questions).

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Ovarian Cancer in Iowa

Results

Process evaluation

- Most participants were from Iowa (69.0%; n = 20); participants from seven other states viewed the live or on-demand session.
- Twenty-two percent of participants completed the evaluation form (n=45) (October 16, 2020–March 9, 2021).

Live Event



Recorded Webinar



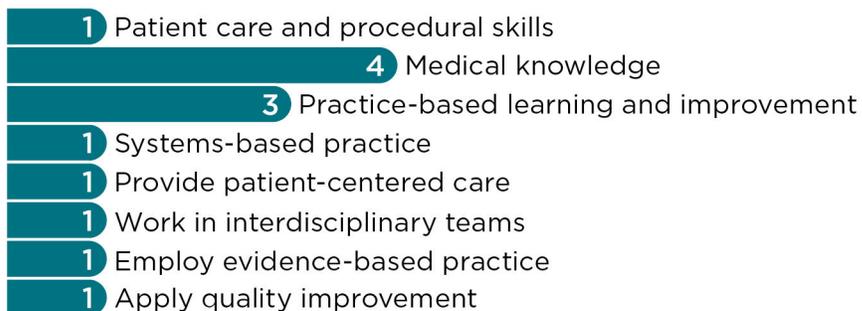
- Number of attendees
- Number of attendees that completed the evaluation forms

- Slightly more than half of the Iowa webinar participants (55%) were health care providers (n=11).



Outcome evaluation (n = 11):^b

- Respondents reported perceived improvements in several competencies because of their participation in the webinar (n=6).



^b Because not all questions were required, the total n for each question varied.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Ovarian Cancer in Iowa

Results

- Respondents were unsure of the influence of the webinar on their practice, leadership, performance, or research (n=6).

17% Yes

83% Not sure

- Two respondents cited time constraints and perceived staff resistance as potential barriers to making changes in their practice or professional behaviors.

Sustainability

The recorded webinar is available for on demand viewing via the Brown University CME website until October 16, 2021. Continuing education and CME credits for physicians, nurses, and social workers are available for on-demand viewers to claim while the webinar resides on the CME website.

Materials available

[Ovarian Cancer in Iowa](https://cme-learning.brown.edu/iowaOC)
(<https://cme-learning.brown.edu/iowaOC>)

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education – Webinar

Identifying Ovarian Cancer Symptoms: Promoting Early Diagnosis, Treatment, and Improved Outcomes Through Rapid Referral

Site	Rhode Island Department of Public Health
Activity type	Webinar
Intended audience	Physicians and physician specialists (gynecologists, gastroenterologists), physician assistants, nurse practitioners, registered nurses, residents, fellows, medical students, and other allied health professionals engaged in the care of women.
Purpose	<p>To enable the intended audience to:</p> <ul style="list-style-type: none"> Identify signs and symptoms of ovarian cancer. Describe the incidence of ovarian cancer nationally and in Rhode Island. Identify survivorship and quality of life advantages for patients referred rapidly after diagnosis to gynecologic oncologists. Outline evidence-based guidelines for effective symptom workup and indication for referral to gynecologic oncologist. Identify risk factors, including genetic syndromes. Understand national protocols for genetic counseling and testing eligibility.
Implementation activities	<p>Developed and delivered a webinar that was:</p> <ul style="list-style-type: none"> 60 minutes in duration. Webcasted live on October 26, 2020. Recorded and released for on-demand viewing on the Brown CME website on November 9, 2020 (available through November 9, 2022). Able to offer continuing education credits for participation by either mode.
Role of partners involved	<p>Rhode Island Ovarian Cancer Task Force</p> <ul style="list-style-type: none"> Developed purpose and objectives. Identified and recruited speaker. Contributed to conceptualization of data collection instrument. <p>Brown University Office of CME</p> <ul style="list-style-type: none"> Provided CMEs for live and recorded versions of webinar. Contributed to conceptualization of data collection instrument. Collected and summarized data.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Identifying Ovarian Cancer Symptoms: Promoting Early Diagnosis, Treatment, and Improved Outcomes Through Rapid Referral

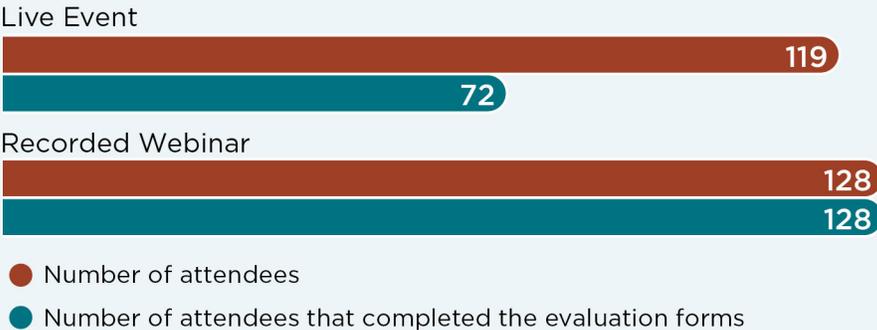
Promotion RIDOH, the Rhode Island Ovarian Cancer Task Force, the Partnership to Reduce Cancer in Rhode Island (Rhode Island’s cancer prevention and control coalition), and the other demonstration sites promoted the webinar via dissemination of a [flyer. \[PDF-94KB\]](https://cme-learning.brown.edu/sites/default/files/Flyer_Ovarian%20Cancer%20Webcast%20-%20ag.pdf) (https://cme-learning.brown.edu/sites/default/files/Flyer_Ovarian%20Cancer%20Webcast%20-%20ag.pdf)

- Evaluation**
- Process evaluation**
- Number and type of registered and actual participants at live and on-demand webinar.
 - Number of live and on-demand attendees submitting CME/CEU evaluations.
- Outcome evaluation**
- Retrospective pre- and post-test to assess change in knowledge, awareness, ability, and intention.

Results

Process evaluation

- Eighty-one percent of webinar participants completed the evaluation form (n=247) (October 26, 2020—January 19, 2021).

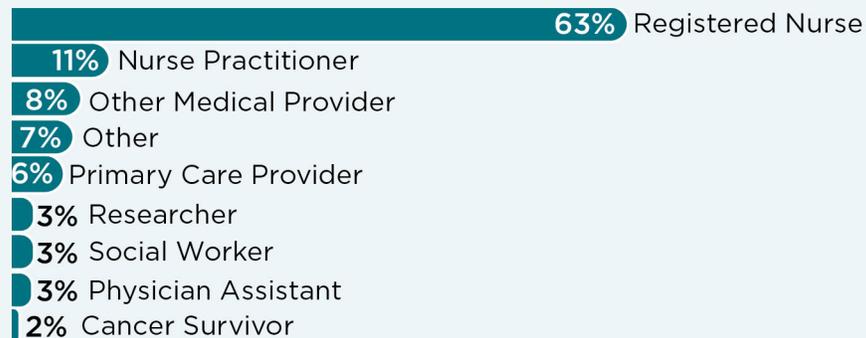


Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Identifying Ovarian Cancer Symptoms: Promoting Early Diagnosis, Treatment, and Improved Outcomes Through Rapid Referral

Results

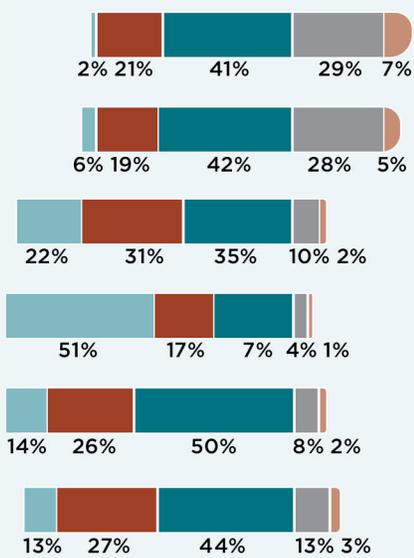
- Most of the Rhode Island webinar participants (91%) were health care providers (n=203).^c



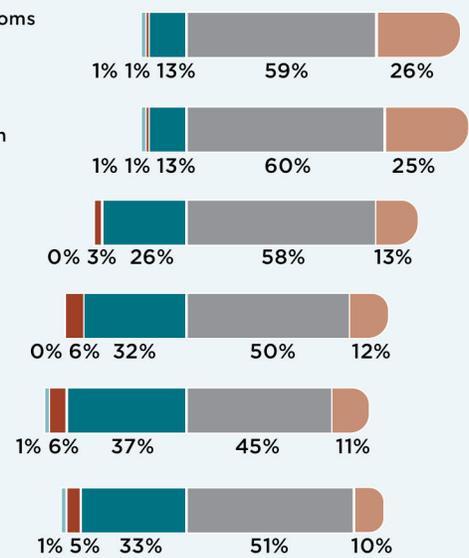
Outcome evaluation (n = 203)^d

- From before to after the webinar, the change in participants' self-rated awareness, knowledge, and ability were statistically significant.

Before the Webinar



After the Webinar



Legend: Not at all (light blue), Slightly (red), Somewhat (teal), Very (grey), Extremely (orange)

^c The sum of percentages exceeds 100 percent as participants could select more than one option.

^d Outcome data are from the live and on-demand webinar. Participants seeking CME/CEU credits completed a post-test evaluation survey (n=200) separate from the post-course evaluation assessment (n=203), which assessed retrospective pre- and post-test changes in knowledge, awareness, abilities, and intention related to ovarian cancer and the role and importance of referral to a gynecologic oncologist for receipt of standard of care.

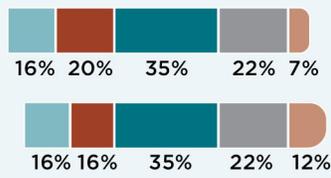
Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Identifying Ovarian Cancer Symptoms: Promoting Early Diagnosis, Treatment, and Improved Outcomes Through Rapid Referral

Results

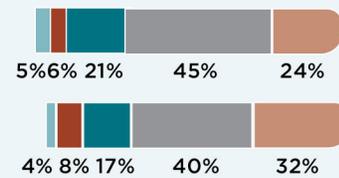
- From before to after the webinar, the change in participants' self-rated intentions was statistically significant.

Before the Webinar



Intention to outline evidence-based guidelines for effective ovarian cancer symptom workup. (n = 196)

After the Webinar



Intention to take action steps for rapid referral to gynecologic oncologist. (n = 198)

● Never
 ● Rarely
 ● Occasionally
 ● Moderately
 ● A Great Deal

Sustainability

The recorded webinar is available for on-demand viewing via the Brown University CME website until November 9, 2022. Continuing education and CME credits for physicians, nurses, and social workers are available for on-demand viewers to claim while the webinar resides on the CME website.

Materials available

[Archived recording of webinar \(https://cme-learning.brown.edu/RapidOnDemand\)](https://cme-learning.brown.edu/RapidOnDemand)



Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Provider Education - Roundtable

Making a Difference: Expediting Diagnosis of Ovarian Cancer: A Virtual Roundtable Discussion

Site Rhode Island Department of Public Health

Activity type Roundtable

Intended audience Physicians and physician specialists (gynecologists, gastroenterologists), physician assistants, nurse practitioners, registered nurses, residents, fellows, medical students, and other allied health professionals engaged in the care of women.

Purpose To enable the intended audience to:

- Identify the benefits of rapid referral of women with ovarian cancer to gynecologic oncologists and recognizing the factors that influence staging of ovarian cancer at diagnosis.
- Describe how speeding up differential diagnosis can improve overall outcomes.
- Appreciate the importance of cancer genetic counseling and testing and its relationship to obtaining a comprehensive cancer family history.
- Gain access to tools empowering primary care providers and specialists to improve outcomes for women with ovarian cancer.
- Learn about other collaborative projects associated with this grant, including Survivors Teaching Students® program and projects completed by groups in Iowa and Michigan.

Implementation activities Developed and delivered a roundtable discussion that was:

- Two hours in duration.
- Webcasted live on December 2, 2020.
- Recorded and released for on-demand viewing on the Brown University Office of CME website on December 16, 2020 (available through December 16, 2022).
- Able to offer continuing education credits for participation by either mode.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Making a Difference: Expediting Diagnosis of Ovarian Cancer: A Virtual Roundtable Discussion

Role of partners involved

Rhode Island Ovarian Cancer Task Force

- Developed purpose and objectives.
- Identified and recruited speakers.
- Promoted event.
- Contributed to conceptualization of data collection instrument.

Brown University Office of CME

- Provided CMEs for live and recorded versions of roundtable.
- Contributed to conceptualization of data collection instrument.
- Collected and summarized data.

MDHHS and IDPH Ovarian Cancer Demonstration Project Teams

- Presented on their respective demonstration projects.

Promotion

RIDOH, Brown CME, the Rhode Island Ovarian Cancer Task Force, the Partnership to Reduce Cancer in Rhode Island, and the other demonstration sites (IDPH and MDHHS) promoted the roundtable via dissemination of a [flyer. \[PDF-94KB\] \(https://cme-learning.brown.edu/sites/default/files/Flyer_Ovarian%20Cancer%20Webcast%20-%20ag.pdf\)](https://cme-learning.brown.edu/sites/default/files/Flyer_Ovarian%20Cancer%20Webcast%20-%20ag.pdf)

Evaluation

Process evaluation

- Number and type of registered and actual participants at live and on-demand roundtable event.
- Number of live and on-demand attendees submitting CME/CEU evaluations.

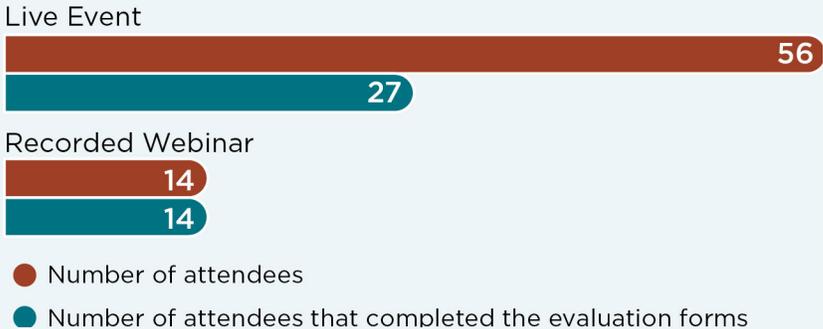
Outcome evaluation

- Retrospective pre- and post-test to assess change in knowledge, awareness, ability, and intention.

Results

Process evaluation

- Fifty-nine percent of roundtable participants completed the evaluation form (n=247) (December 6, 2020—May 18, 2021).

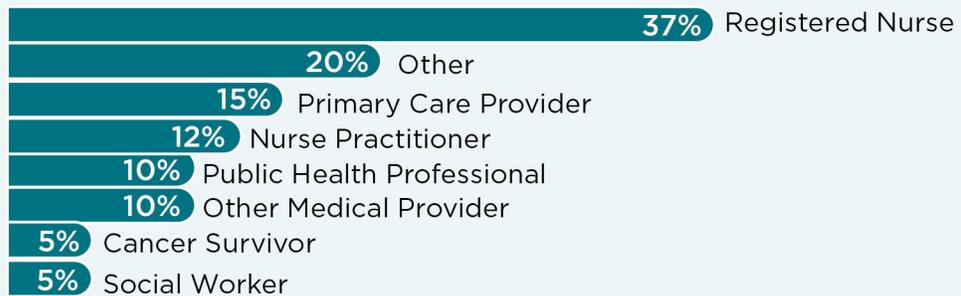


Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Making a Difference: Expediting Diagnosis of Ovarian Cancer: A Virtual Roundtable Discussion

Results

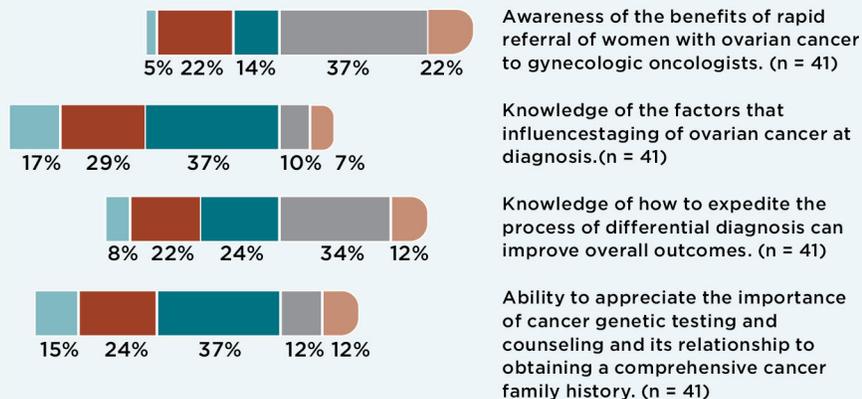
- Seventy-four percent of roundtable participants were health care providers (n=41).^e



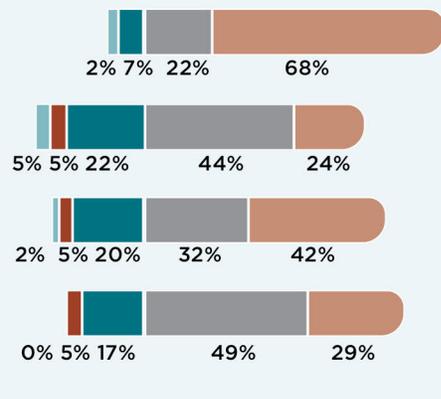
Outcome evaluation (n = 41)

- From before to after the roundtable, the change in participants' self-rated awareness, knowledge, and ability was statistically significant.

Before the Webinar



After the Webinar



● Not at all ● Slightly ● Somewhat ● Very ● Extremely

- When asked if they plan to access the RIDOH ovarian cancer web toolkit to empower primary care providers and specialists to improve outcomes for women with ovarian cancer, 100% of respondents reported that they plan to access the toolkit.

^e The sum of percentages exceeds 100 percent as participants could select more than one option.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Making a Difference: Expediting Diagnosis of Ovarian Cancer: A Virtual Roundtable Discussion

Sustainability

The recorded roundtable discussion is available for on demand viewing via the Brown University CME website until December 16, 2022. Continuing education and CME credits for physicians, nurses, and social workers are available for on-demand viewers to claim while the roundtable discussion resides on the CME website.

Materials available

[Archived recording of roundtable \(https://cme-learning.brown.edu/DifferenceOnDemand\)](https://cme-learning.brown.edu/DifferenceOnDemand)

Key Considerations for Implementation and Evaluation

Overall considerations

- Emphasize that gynecologic oncologists are the only subspecialists with specific training in treating ovarian cancer.
- Use partnerships and listservs to promote the event to health care provider organizations (such as schools of medicine and schools of public health; university hospitals, particularly departments of obstetrics and gynecology; departments of public health; national cancer organizations; medical associations; and other NCCCP awardees).
- Maintain flexibility in responding to challenges encountered when planning and implementing strategies.

Development of health care provider handouts and toolkits

- Involve gynecologic oncologists and other key partners in developing resources.
- Use text boxes, columns, and other formatting techniques to make handouts easier to follow.
- Include hyperlinks to patient education materials so that providers can download

and share the materials with those they suspect of having or those that have been diagnosed with ovarian cancer.

- Include partner logos to enhance credibility of handouts.
- Use multiple channels for dissemination (for example, post the handout on multiple cancer-related websites, mail printed copies and hyperlinks to OB/GYNs primary care physicians and oncologists, and cross-promote with other materials and activities).
- Track and monitor frequency of handout downloads from websites.

Webinar or roundtable

- Record and archive live training events to increase reach.
- Offer CME credits as an incentive for training webinars and roundtables.
- Work with partners to promote events via multiple channels.
- Consider your intended audiences' work schedules when scheduling events.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Patient Education - Educational Handout

Patients with Ovarian Cancer: Improving Health Outcomes	
Site	Iowa Department of Public Health
Activity type	Educational handout
Intended audience	Women diagnosed with ovarian cancer.
Purpose	<p>To inform ovarian cancer patients about:</p> <ul style="list-style-type: none"> Basics of ovarian cancer treatment. The importance of requesting a referral to a gynecologic oncologist. Treatment option questions patients should ask their health care provider. How to request a referral to a gynecologic oncologist and obtain contact information for medical centers in Iowa that have gynecologic oncologists on staff.
Implementation activities	<ul style="list-style-type: none"> Used findings from formative study focus groups and interviews with patients and health care providers to define the focus and content for the handout. Shared initial draft with health care providers and subject matter experts (health department staff and CDC) to review for scientific accuracy and appropriateness of topics; received written feedback. Conducted materials and message testing—via virtual cognitive interviews—with ovarian cancer survivors to get feedback and refine the handout.
Role of partners involved	<p>University of Iowa, Iowa Cancer Consortium, Iowa Cancer Registry</p> <ul style="list-style-type: none"> Drafted and revised material. Conducted materials and message testing. <p>UIHC</p> <ul style="list-style-type: none"> Provided subject matter experts to review and provide feedback on draft handout. <p>NormaLeah Ovarian Cancer Initiative</p> <ul style="list-style-type: none"> Recruited ovarian cancer survivors to participate in cognitive interviews.
Promotion	<ul style="list-style-type: none"> Posted online to the Iowa Cancer Consortium website. Promoted the handout during an Ovarian Cancer in Iowa webinar conducted on October 16, 2020.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patients with Ovarian Cancer: Improving Health Outcomes

Evaluation

Process evaluation

- Number of interviews conducted.
- Interviewees' feedback on the content, layout, and helpfulness of the handout.

Results

Process evaluation

- Conducted cognitive interviews with six ovarian cancer survivors.
- Key feedback from participants during the cognitive interviews included:
 - Overall clarity of the document is clear and straightforward.
 - The term “debulking” is unclear and providers often use this term during appointments.
 - The term “personal preferences” related to tailoring a woman’s treatment plan is unclear.
 - All participants reported they would share the handout with a friend or family member dealing with a recent ovarian cancer diagnosis.

Sustainability

The handout is available on the Iowa Cancer Consortium website. OB/GYNs, primary care physicians, and oncologists across Iowa received printed copies and electronic links to share with newly diagnosed ovarian care patients.

Materials available

[Patients with Ovarian Cancer: Improving Health Outcomes \[PDF-313KB\] \(https://canceriowa.org/wp-content/uploads/2021/01/Handouts-for-patients-newly-diagnosed-with-ovarian-cancer.pdf\)](https://canceriowa.org/wp-content/uploads/2021/01/Handouts-for-patients-newly-diagnosed-with-ovarian-cancer.pdf)

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Patient Education - Checklist

Patient Education Resources	
Site	Michigan Department of Health and Human Services
Activity type	Checklist and companion resource document
Intended audience	Patients diagnosed with or suspected to have ovarian cancer as well as the public
Purpose	To develop a checklist and resource document for patients with ovarian cancer that would increase referrals to a gynecologic oncologist.
Implementation activities	<ul style="list-style-type: none"> Developed a checklist and companion resource document for patients with ovarian cancer. Conducted virtual focus groups with ovarian cancer survivors to obtain checklist feedback. Conducted a survey with focus group participants to obtain “helpful hints” for the resource document. Revised and finalized checklist and companion resource document based on feedback received during virtual focus groups.
Role of partners involved	<p>MOQC</p> <ul style="list-style-type: none"> Drafted checklist. Revised checklist based on feedback received from focus groups. <p>Michigan Ovarian Cancer Alliance (MIOCA)</p> <ul style="list-style-type: none"> Recruited ovarian cancer survivors.
Promotion	<ul style="list-style-type: none"> Posted to the MDHHS and MOQC ovarian cancer webpages. Conducted social media campaign using Facebook™ and Google™ text based advertisements that appeared on the search engine results page to promote the resources and tools developed from this demonstration project. The advertisements directed readers to the MDHHS ovarian cancer webpage, where the checklist is available for download.
Evaluation	<p>Process evaluation</p> <ul style="list-style-type: none"> Number of ovarian cancer survivors who participated in the virtual focus groups in May and August 2020. High-level themes from focus groups participants. Number of checklist downloads. Number of patient resource document downloads. <p>Outcome evaluation</p> <ul style="list-style-type: none"> Intention of patients to seek a referral to a gynecologic oncologist (asked of survivors during the focus groups).

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patient Education Resources

Results

Process evaluation

- 20 ovarian cancer survivors participated in the three focus groups in May 2020 and 12 in the two focus groups in August 2020.
- Themes from the May focus groups for the Ovarian Cancer Patient Checklist:
 - Document should serve as a map of what patients should expect to encounter as they begin treatment, and include types of treatment, questions to ask providers, tips for navigating treatment, names of gynecologic oncologists, and information that would be helpful to track.
 - A checklist or guide that patients can continue to use through treatment might be more helpful. After an appointment, a patient receives documents from her health care team with the information mentioned in this document.
 - Order of information on a document indicates its priority.
 - Define some terms used.
- Themes from the May focus groups for the patient resource document, A Roadmap for Ovarian Cancer: Know the Signs and Symptoms, Work with a Gynecologic Oncologist:
 - After reviewing the document, participants noted that women are often diagnosed by their primary care physician and not all primary care physicians know to refer to a gynecologic oncologist.
 - Document is very clear about the importance of seeing a gynecologic oncologist.
 - Make sure primary care physicians are aware of this document and of the need to refer to a gynecologic oncologist.
 - Document might be important for someone who might suspect they have ovarian cancer, especially the signs and symptoms section.
 - Document should include information on how to find a gynecologic oncologist; add the navigation line number to document.
- Themes from the August focus groups for the Ovarian Cancer Patient Checklist:
 - Clarify that this document can be used throughout the cancer journey.
 - Genetic testing is an important component of the checklist.
 - Document should be completed with the help of a health care provider; it could be confusing if found online.
 - Each section of the checklist could benefit from additional information on the topic or “helpful hints.”

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patient Education Resources

Results

Outcome evaluation

- During the August focus groups, four out of six focus group participants who provided a response reported that the checklist would prompt them to seek a referral to a gynecologic oncologist.
- In November and December 2020, the Ovarian Cancer Patient Checklist was downloaded 21 times.
- In November and December 2020, the Roadmap for Ovarian Cancer handout was downloaded 20 times.

Sustainability

The MOQC and the MDHHS webpages provide access to the resources.

Materials available

- **[Ovarian Cancer Patient Checklist](http://www.moqc.org/wp-content/uploads/Final-Patient-OvarianCancerChecklist.pdf)**
[PDF-710KB] (www.moqc.org/wp-content/uploads/Final-Patient-OvarianCancerChecklist.pdf)
- **[A Roadmap for Ovarian Cancer: Know the Signs and Symptoms, Work with a Gynecologic Oncologist](http://www.michigan.gov/documents/mdhhs/ARoadMapforOvarianCancer_707815_7.pdf)**
[PDF-193KB] (www.michigan.gov/documents/mdhhs/ARoadMapforOvarianCancer_707815_7.pdf)

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Patient Education – Podcasts

Patient Podcasts	
Site	Michigan Department of Health and Human Services
Activity type	Podcasts
Intended audience	Health care providers and patients diagnosed with or suspected of having ovarian cancer.
Purpose	To increase knowledge and awareness related to ovarian cancer risk and the importance of referral to a gynecologic oncologist.
Implementation activities	<ul style="list-style-type: none"> ▪ Interviewed ovarian cancer survivors about their experiences from diagnosis through treatment for ovarian cancer. ▪ Interviewed gynecologic oncologists to provide additional information throughout each podcast. ▪ Edited and published two podcasts, each featuring patient and health care provider perspectives: <ul style="list-style-type: none"> — The first podcast, <i>New Diagnosis</i>, focuses on ovarian cancer symptoms, diagnosis, when to seek a referral to a gynecologic oncologist, and advice to ovarian cancer patients and their loved ones. — The second podcast, <i>Treatment Options</i>, focuses on treatment options for ovarian cancer, including surgery and chemotherapy.
Role of partners involved	MOQC <ul style="list-style-type: none"> ▪ Recruited ovarian cancer survivors and gynecologic oncologists to participate in interviews for the podcasts. ▪ Conducted recorded interviews. ▪ Edited and published two podcasts.
Promotion	<ul style="list-style-type: none"> ▪ Posted podcast to the MOQC ovarian cancer webpage. ▪ Posted link to podcast to the MDHHS ovarian cancer webpage. ▪ Shared with the MIOCA network.
Evaluation	<ul style="list-style-type: none"> ▪ Number of podcast downloads from the MOQC webpage.
Results	Process evaluation <ul style="list-style-type: none"> ▪ Published <i>New Diagnosis</i> podcast in September 2020. Between October and December 2020, there were 108 downloads. ▪ Published <i>Treatment Options</i> podcast in December 2020, and there were 24 downloads that month.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patient Podcasts

Sustainability The MOQC webpage hosts the podcasts, and the podcast links will remain on the MDHHS ovarian cancer webpage.

Materials available [Patient Podcasts \(https://moqc.org/initiatives/gynecologic-oncology/ovarian-cancer-resources/\)](https://moqc.org/initiatives/gynecologic-oncology/ovarian-cancer-resources/)

Key Considerations for Implementation and Evaluation

Overall considerations

- Emphasize that gynecologic oncologists are the only subspecialists with specific training in treating ovarian cancer.
- Use partnerships and listservs to promote the podcasts to a wide range of health care provider organizations (for example, schools of medicine and schools of public health; university hospitals, particularly departments of obstetrics and gynecology; departments of public health; national cancer organizations; medical associations; and other NCCCP awardees).
- Maintain flexibility in responding to challenges encountered when planning and implementing strategies.
- Test materials with members of priority population.
- Consider virtual focus groups and interviews.
- Conduct multiple rounds of materials and message testing.
- Use multiple channels for dissemination (for example, post the handout on multiple cancer-related websites, mail hard copies and hyperlinks to OB/GYNs, primary care physicians and oncologists, and cross-promote with other materials and activities).
- Track and monitor frequency of handout downloads from websites.

Development of patient education handouts

- Use textboxes, columns, and other formatting techniques to make handouts easier to follow.
- Include hyperlinks to patient education materials so that providers can download and share materials with those they suspect of having or diagnose with ovarian cancer.
- Include partner logos to enhance credibility of handouts.
- Interview patients, survivors, and health care providers to provide listeners with multiple perspectives and give health care providers an opportunity to educate listeners about medical condition, diagnosis, and treatment options.
- Track and monitor frequency of podcast downloads from websites.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



General Public Education - Report

2020 Cancer in Iowa Report	
Site	Iowa Department of Public Health
Activity type	Report
Intended audience	Members of the public interested in the status of cancer cases and deaths in Iowa as well as health care providers and patients with ovarian cancer.
Purpose	<p>To inform the public about:</p> <ul style="list-style-type: none"> ▪ New cases and cancer deaths by county. ▪ Top 10 cancer types by sex. ▪ Estimates of cancer survivor numbers. ▪ Questions to ask when diagnosed with cancer and ways to cope with emotions. ▪ Ovarian cancer. The 2020 edition includes a special section on ovarian cancer, which provides information on staging, screening, prevention, ongoing research, and treatment for ovarian cancer, including the importance of receipt of care by a gynecologic oncologist.
Implementation activities	<ul style="list-style-type: none"> ▪ Developed report. ▪ Distributed report to community members across Iowa via mail and email. ▪ Posted report on Iowa Cancer Registry website. ▪ Promoted report on Iowa Cancer Consortium website in September 2020 for Ovarian Cancer Awareness month.
Role of partners involved	<p>University of Iowa, Iowa Cancer Consortium, Iowa Cancer Registry</p> <ul style="list-style-type: none"> ▪ Drafted and disseminated report.
Promotion	<ul style="list-style-type: none"> ▪ Posted on Iowa Cancer Consortium website. ▪ Distributed to community members across Iowa. ▪ Featured on Iowa Cancer Consortium website in September 2020 for Ovarian Cancer Awareness month. ▪ Promoted report when sharing patient and provider handouts. ▪ Promoted report during the Ovarian Cancer in Iowa webinar on October 16, 2020.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

2020 Cancer in Iowa Report

Evaluation

Process evaluation

- Number of emails sent and Twitter™ followers reached in communications regarding report.
- Number of downloads from Iowa Cancer Registry website.

Results

Process evaluation

- Sent communications promoting this report to more than 1,500 email addresses and posted to more than 700 Twitter™ followers.
- As of April 19, 2021, there were 761 downloads of the report from the Iowa Cancer Registry website.

Sustainability

The report is available on the Iowa Cancer Registry website.

Materials available

[2020 Cancer in Iowa report \[PDF-1MB\] \(https://shri.public-health.uiowa.edu/wp-content/uploads/2020/03/2020-SHRI-Annual-Report.pdf\)](https://shri.public-health.uiowa.edu/wp-content/uploads/2020/03/2020-SHRI-Annual-Report.pdf)

Key Considerations for Implementation and Evaluation

- Cross-promote reports with other educational materials.
- Track and monitor frequency of report downloads from websites.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Partnership Development and Enrichment – Partnership

Formation of Rhode Island Ovarian Cancer Survivorship Task Force	
Site	Rhode Island Department of Public Health
Activity type	Partnership
Purpose	To convene a group of survivors, caregivers, advocates, and health care professionals to help RIDOH plan and implement activities for the ovarian cancer demonstration project.
Implementation activities	<ul style="list-style-type: none"> ▪ Developed a workplan for the project. ▪ Established connections with professionals in the field needed to administer strategies. ▪ Planned and implemented four strategies for the demonstration project: webinar, roundtable discussion, toolkit, and Survivors Teaching Students® workshops.
Role of partners involved	<p>The Task Force included 10 people representing the following organizations and perspectives:</p> <ul style="list-style-type: none"> ▪ Ovarian cancer survivors ▪ The Partnership to Reduce Cancer in Rhode Island (CCC Coalition) ▪ University of Rhode Island’s College of Nursing ▪ Women & Infants Hospital in Providence, Rhode Island <ul style="list-style-type: none"> — Case manager in oncology — Clinical program manager of the Cancer Genetics and Prevention Program — Gynecologic oncologist ▪ RIDOH CCC program
Promotion	None
Evaluation	The demonstration project did not evaluate this activity.
Results	The Task Force supported the planning and implementation of the ovarian cancer demonstration project under the leadership of the RIDOH CCC program staff. Throughout the demonstration period, RIDOH relied heavily on the knowledge and expertise of the Task Force, which added quality and depth to the products developed and empowered survivors participating in project activities.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Formation of Rhode Island Ovarian Cancer Survivorship Task Force

Sustainability RIDOH considers the formation of the Task Force a successful result of this demonstration project and plans to continue involving this group of committed partners in future work. The Task Force is now formally a part of Rhode Island’s CCC Coalition, The Partnership to Reduce Cancer in Rhode Island.

Materials Available None

Key Considerations for Implementation and Evaluation

- When identifying individuals and organizations to include on a task force, ensure diversity in experience, knowledge, and lived experiences.
- Include survivors on task force.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Patient Navigation Systems – Patient Navigation

1-800 Line Monitored by Nurse Navigator

Site	Michigan Department of Health and Human Services
Activity type	Patient navigation
Intended audience	Patients diagnosed with or those at higher risk of ovarian cancer.
Purpose	To develop a patient navigation manual specific to ovarian cancer, expand an existing patient navigation system to connect patients diagnosed with or those at higher risk of ovarian cancer to gynecologic oncologists throughout Michigan, and provide ovarian cancer resources.
Implementation activities	<ul style="list-style-type: none"> Developed a process for referring patients to gynecologic oncologists in Michigan. Conducted a community scan to identify relevant resources to incorporate into the patient navigation process and manual. Developed patient navigation manual, which explains the navigation process. Promoted the 1-800 phone line via partner listservs, newsletters, and social media campaign.
Role of partners involved	<p>MOQC</p> <ul style="list-style-type: none"> Led day-long meeting with a gynecologic oncologist and nurse intake specialist to provide information for the patient navigation process. Collaborated with MDHHS to develop the patient navigation process. <p>MIOCA</p> <ul style="list-style-type: none"> Led meeting with survivors and a gynecologic oncologist to understand the process of receiving an ovarian cancer diagnosis and referral to a gynecologic oncologist.
Promotion	<ul style="list-style-type: none"> Promoted via partner listservs, newsletters, and social media campaign. Conducted social media campaign that used Facebook™ advertisements and Google™ text based advertisements that appeared on the search engine results page and directed readers to the 1-800 phone number.
Evaluation	<p>Process evaluation</p> <ul style="list-style-type: none"> Analytic data from the social media campaign. Number of Michigan patients with ovarian cancer who called into the patient navigation system.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

1-800 Line Monitored by Nurse Navigator

Results

Process evaluation

- Analytic data were not available at the time of reporting.
- As of December 31, 2020, two patients with ovarian cancer called the patient navigation system.

Sustainability

The 1-800 phone line and patient navigation process will remain available after completion of the project.

Materials available

Patient navigation phone number: 1-844-446-8727
For additional information about the patient navigation manual, contact:
Debbie Webster, BSN, RN, LMSW
Cancer Patient Navigation Consultant
Michigan Department of Health and Human Services
WebsterD1@Michigan.gov

Key Considerations for Implementation and Evaluation

- Engage project partners early in the planning process.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Referral Systems - Educational handout

Patients with Ovarian Cancer: Improving Health Outcomes	
Site	Iowa Department of Public Health
Activity type	Educational handout
Intended audience	Health care providers (primary care physicians, OB/GYNs, and general surgeons) in Iowa.
Purpose	To explore options for and promote processes for referring patients to UIHC gynecologic oncologists.
Implementation activities	<ul style="list-style-type: none"> Conducted formative study in which a provider identified wait time on the phone as a barrier to making referrals. Conducted cognitive interviews with health care providers. Engaged in discussions with care coordinators at UIHC to clarify the most efficient processes for making referrals.
Role of partners involved	<p>University of Iowa, Iowa Cancer Consortium, Iowa Cancer Registry</p> <ul style="list-style-type: none"> Developed purpose and objectives. Drafted and revised material. Conducted cognitive testing to guide revisions. <p>UIHC</p> <ul style="list-style-type: none"> Provided subject matter experts to review and provide feedback on draft handout.
Promotion	Purchased a list of Iowa OB/GYNs to create a listserv for sharing the handout. Iowa also promoted the handout during the Ovarian Cancer in Iowa webinar conducted on October 16, 2020.
Evaluation	<p>Process evaluation</p> <ul style="list-style-type: none"> Number of interviews conducted. Feedback received during cognitive interviews

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Patients with Ovarian Cancer: Improving Health Outcomes

Results

Formative studies (specific to the referral process)

- Telephone wait time was reported as a barrier to making referrals; however, this was noted by just one respondent, which led the Iowa team to draft guidance for use of the online system.

Process evaluation

- Multiple respondents noted they found calling the care coordinators' line at the UIHC to be the most effective and efficient way for scheduling an appointment for a referral.

Sustainability

The handout is available on the Iowa Cancer Consortium website.

The Iowa team is also working with the UIHC care coordinators to assess satisfaction with the referral number through their current survey; however, about 200 new cases of ovarian cancer are diagnosed in Iowa each year, and not all of those are referred to the UIHC. The team acknowledged it may take some time to accrue enough surveys from referring providers to assess potential changes.

Materials available

[Patients with Ovarian Cancer: Improving Health Outcomes \[PDF-310KB\]](https://canceriowa.org/wp-content/uploads/2021/02/Ovarian-Cancer-Handout-for-Providers.pdf) (<https://canceriowa.org/wp-content/uploads/2021/02/Ovarian-Cancer-Handout-for-Providers.pdf>)

For additional information on how the Iowa team explored and verified referral options, please contact:

Katie Jones, MPH
Manager, Comprehensive Cancer Control Program
Chronic Disease Prevention & Management
Iowa Department of Public Health
katie.jones@idph.iowa.gov

Key Considerations for Implementation and Evaluation

- Further explore identified barriers. In retrospect, the Iowa team would have asked which clinic had long phone wait times, whether the issue occurs regularly, whether the referral was specifically for ovarian cancer, and whether the provider reporting the barrier referred to specific concerns or reported about general experiences.
- Work with care coordinators to determine how best to make a referral to a gynecologic oncologist (phone number, web address, and processes).
- Conduct materials and message testing. It was through this process that the Iowa team learned that multiple providers perceived making referrals by phone to be more efficient than the online system (for the University of Iowa system).

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists



Use of Survivors in Teaching Students- Medical and health care student training

Survivors Teaching Students® Curriculum	
Site	Rhode Island Department of Public Health
Activity type	Medical and health care student training
Intended audience	Students at Rhode Island colleges and universities studying to become health care professionals who were likely to interact with women in a health care setting (physicians, physicians’ assistants, nurses, social workers, and pharmacists).
Purpose	<p>To empower women diagnosed with ovarian cancer to share their experiences with future health care professionals in training. The 60-minute training workshop delivered the following key messages:</p> <ul style="list-style-type: none"> ▪ Ovarian cancer has the highest death rate of all gynecologic cancers. ▪ Diagnosis for most women occurs at late stages after the disease has metastasized. ▪ There is no reliable and regularly recommended screening test for ovarian cancer. ▪ Survival rates improve dramatically for women diagnosed in early stages. ▪ The presentation of ambiguous symptoms and common referrals to gastrointestinal specialists and other health care professionals who are not gynecologic oncologists can delay diagnosis and may lead to worse prognoses for patients.
Implementation activities	<ul style="list-style-type: none"> ▪ Engaged Rhode Island colleges and universities to host the workshops. ▪ Conducted workshops in-person initially but moved to virtual delivery in August 2020 due to COVID-19 pandemic. ▪ Trained ovarian cancer survivors partnered with Ovarian Cancer Research Alliance facilitators to deliver each workshop.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Survivors Teaching Students® Curriculum

Role of partners involved

Ovarian Cancer Research Alliance

- Implemented Survivors Teaching Students® workshops.^f
- Recruited and trained ovarian cancer survivors to accompany facilitators in delivering workshops.
- Contributed to conceptualization of data collection instrument.

Rhode Island Ovarian Cancer Task Force

- Recruited academic facilities to participate in workshops.
- Identified and recruited speaker.
- Contributed to conceptualization of data collection instrument.

Promotion

Members of the Task Force and the Ovarian Cancer Research Alliance reached out to contacts in relevant programs at colleges and universities throughout the state to offer workshops to students free of charge.

Evaluation

Process evaluation

- Number of workshops conducted.
- Number of attendees at each workshop.

Outcome evaluation

- Pre- and post-event surveys to assess self-reported changes in knowledge, intent, and ability to refer to a gynecologic oncologist.

^fSurvivors Teaching Students® is a proprietary curriculum developed by Ovarian Cancer Research Alliance independent of this demonstration project

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Survivors Teaching Students® Curriculum

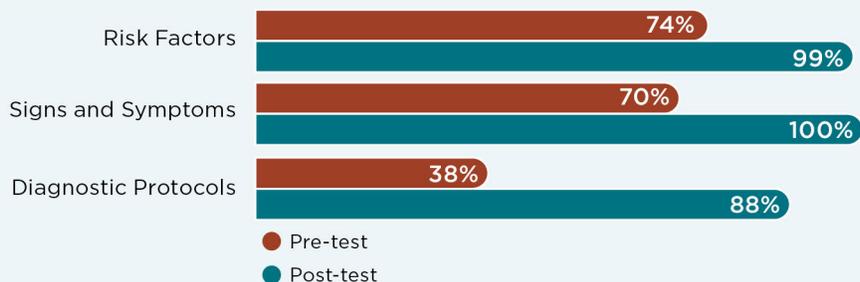
Results

Process evaluation

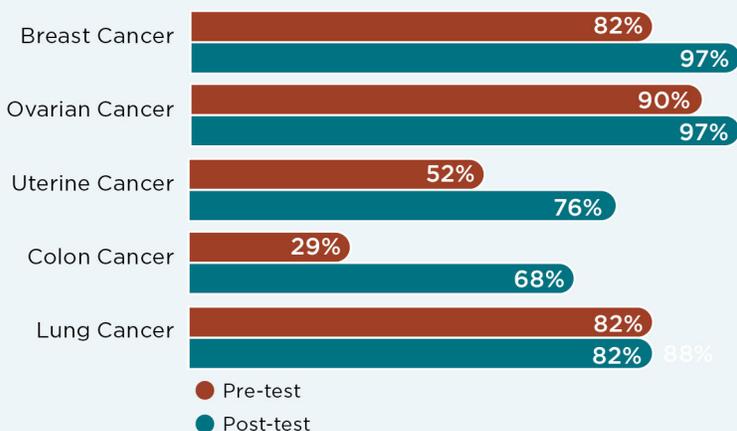
- Conducted eight workshops at five colleges and universities.
- 167 students participated in the workshops.

Outcome evaluation^{9hi}

- The proportion of participants selecting the correct options for “A family history of which of the following raises the risk of ovarian cancer” increased from before to after participation in the workshop (n=135)



- The proportion of participants selecting the correct options for “A family history of which of the following raises the risk of ovarian cancer” increased from before to after participation in the workshop (n=135)



⁹Data from the Johnson & Wales STS workshop were unavailable for analysis.

^hSignificance tests not conducted on these data due to having a mix of individual and aggregated data and differences in the number of individuals completing the pre-and post-tests.

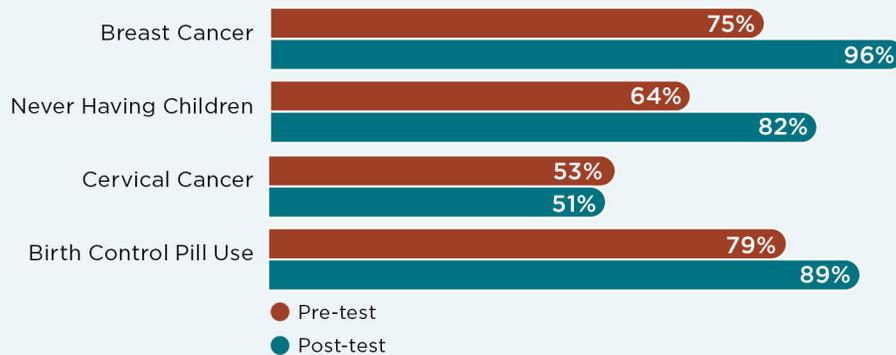
ⁱThe sample size (n) reported for each item may be less than the total number of respondents because not all questions were asked of all participants. The evaluation form included additional questions in 2020.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

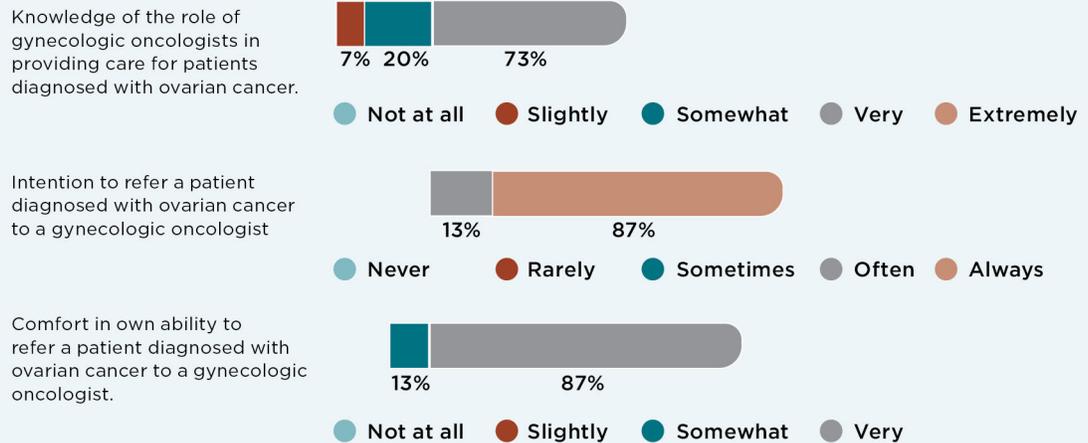
Survivors Teaching Students® Curriculum

Results

- The proportion of participants selecting the correct options for “A personal history of which of the following raises the risk of ovarian cancer” increased from before to after participation in the workshop (n=135)



- Following the workshop, participants rated their knowledge, intention, and comfort level (n=15)^j



Sustainability

RIDOH and the Task Force expect to continue working with the Ovarian Cancer Research Alliance to offer Survivors Teaching Students® workshops in colleges and universities throughout the state.

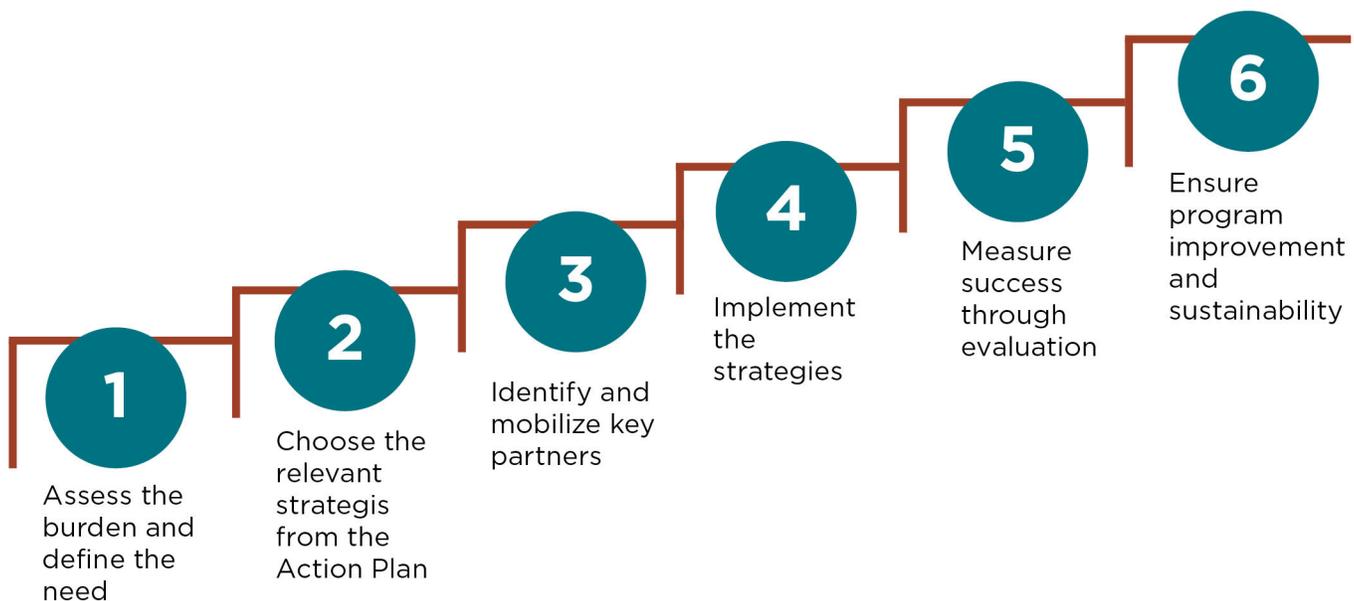
Key Considerations for Implementation and Evaluation

- Maintain flexibility in responding to challenges encountered when planning and implementing strategies.

^j Only post-event surveys asked these questions.

CONCLUSION AND NEXT STEPS FOR IMPROVING OVARIAN CANCER OUTCOMES

NCCCP awardees interested in implementing strategies to increase receipt of care by a gynecologic oncologist among women with ovarian cancer are encouraged to consider steps drawn from the published literature and demonstration findings to support the success of their efforts.^{59,60,61}



1 Assess the Burden and Define the Need

Conduct an assessment to understand awardee-specific ovarian cancer concerns, the percentage of women with ovarian cancer receiving treatment from a gynecologic oncologist in their area, and barriers to receiving treatment from a gynecologic oncologist. Define what is needed to address these barriers.

- Review ovarian cancer-related incidence and death rates for the jurisdiction. Such data are available from state cancer registries, the American Cancer Society, and the United States Cancer Statistics Data Visualizations tool.
- Review data for disparities by race/ethnicity, socioeconomic status, geography, and other factors included in the dataset (including sexual orientation, if possible).
- Collect primary data on facilitators and barriers from patients, survivors, and health care providers via:
 - In-person or virtual focus groups.
 - Cognitive interviews.
 - Online surveys.
- Review data recently collected by other programs or partners to understand the issues better.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Choose the Relevant Strategies from the Action Plan

Map the identified barriers to strategies addressing them (see Examples of Barriers and Strategies with Potential to Address Them). Consider the following tips when selecting strategic approaches:

- Engage key partners, subject matter experts, and members of the intended audience to identify potential strategies to address identified barriers.
- Use multipronged or comprehensive approaches that address one or more issues from the patients' and providers' perspectives as well as at the organizational or systems level. For example, the following program activities address patient and provider issues at the individual and system levels:
 - Patient educational materials increase awareness of and encourage receipt of referral to a gynecologic oncologist for ovarian cancer treatment.
 - Addition of referral prompts to electronic health record systems reminds providers to make a referral to a gynecologic oncologist.
 - Creation or enhancement of a patient navigation line that helps women find providers that accept their insurance increases the likelihood of patients accessing a gynecologic oncologist.
 - Agreements established for guest operations, physician sharing in public and private settings, and telemedicine reduce the distance patients must travel for their treatment.
- Work with CCC coalition members and partners to assess the feasibility of each strategy. The Toolkit to Increase Receipt of Ovarian Cancer Care from a Gynecologic Oncologist describes considerations for implementation and dissemination related to specific approaches by the demonstration sites. Additional resources the demonstration project developed, such as one-pagers and Bright Spots, are included on CDC's Ovarian Cancer website at <https://www.cdc.gov/cancer/ovarian/gynecologic-oncologist/>
 - Identify the resources and expertise needed.

Identify and Mobilize Key Partners

Identify and work with CCC coalition members and partners to administer selected strategies.

- Develop a workplan that outlines tasks, roles, and responsibilities for all parties involved in implementation.
- Share the workplan with CCC coalition members and partners.

Implement the Strategies

Implement the selected strategies. Monitor progress. Document facilitators and challenges to implementation and lessons learned.

- Identify and work with partners or gatekeepers to champion change within organizations.
- Document process, including achievement of key milestones, facilitators, and barriers.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Measure Success through Evaluation

Develop and execute a plan to evaluate the implementation and success of selected strategies.

- Develop the evaluation plan when developing the workplan. **The Toolkit to Increase Receipt of Ovarian Cancer Care from a Gynecologic Oncologist** lists considerations for evaluation of specific approaches by the demonstration sites.
- Include both short-term outcomes (such as download of handouts or podcasts) and long-term outcomes (such as changes in number of referrals to gynecologic oncologists among women diagnosed with ovarian cancer).

Ensure Program Improvement and Sustainability

Use evaluation findings to improve delivery of strategies, maintain partner engagement, and monitor ongoing resource needs to ensure effective and sustained strategy implementation.

- Share interim and long-term outcomes with CCC coalition members, partners, and other key collaborators.
- Work with CCC coalition members, partners, and other key collaborators to troubleshoot or mitigate challenges.
- Work with CCC coalition members, partners, and other key collaborators to develop plans for sustainability and to identify next steps.



EDUCATION

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Examples of Barriers and Strategies with Potential to Address Them

Example Barriers	Increasing Knowledge and Awareness of Role and Importance of Gynecologic Oncologists				
	Provider Education	Patient Education	General Public Education	Partnership Development and Enrichment	Centralization or Regionalization of Care
Patients' and physicians' lack of awareness of gynecologic oncologist resources	Yes	Yes	Yes	Yes	No
Physicians' ineffective recognition of the disease	Yes	No	No	No	No
Attitudes of gynecologists about referring to gynecologic oncologists	Yes	No	No	Yes	No
Travel time and distance to gynecologic oncologist	No	No	No	No	No
Attitudes of gynecologic oncologists about practicing in rural regions	Yes	No	No	Yes	No
Shortage of available gynecologic oncologists	No	No	No	No	Yes
Lack of physician referral to gynecologic oncologist	Yes	Yes	Yes	Yes	No
Lack of awareness and knowledge of the importance of receiving care from a gynecologic oncologist for women with ovarian cancer	Yes	Yes	Yes	Yes	No

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

Examples of Barriers and Strategies with Potential to Address Them

Example Barriers	Improved Models of Care						Expanding the Gynecologic Oncology Workforce		
	Guest Operations	Sharing of Physicians in Public and Private Settings	Multidisciplinary Care	Referral Systems	Patient Navigation	Telemedicine	Expanding Fellowship Training Programs	Academic Detailing	Promoting the Gynecologic Oncology Specialty in Medical Schools
Patients' and physicians' lack of awareness of gynecologic oncologist resources	No	No	No	Yes	Yes	No	No	No	No
Physicians' ineffective recognition of the disease	No	No	No	No	No	No	Yes	Yes	Yes
Attitudes of gynecologists about referring to gynecologic oncologists	No	No	No	No	No	No	No	Yes	No
Travel time and distance to gynecologic oncologist	No	No	No	No	Yes	Yes	No	No	No
Attitudes of gynecologic oncologists about practicing in rural regions	No	No	No	No	No	Yes	No	No	No
Shortage of available gynecologic oncologists	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
Lack of physician referral to gynecologic oncologist	No	No	Yes	Yes	Yes	No	No	No	No
Lack of awareness and knowledge of the importance of receiving care from a gynecologic oncologist for women with ovarian cancer	No	No	No	Yes	Yes	No	No	No	No

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

REFERENCES

- ¹U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999–2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz, June 2021.
- ²American Cancer Society. Cancer Facts & Figures 2018–Special Section: Ovarian Cancer; 2018. Accessed March 16, 2021. www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2018.html
- ³Stewart SL, Harewood R, Matz M, et al. Disparities in ovarian cancer survival in the United States (2001–2009): findings from the CONCORD-2 study. *Cancer*. 2017;123(Suppl 24):5138–5159. <https://doi.org/10.1002/cncr.31027>
- ⁴Torre LA, Trabert B, DeSantis CE, et al. Ovarian cancer statistics, 2018. *CA: A Cancer Journal for Clinicians*. 2018;68(4):284–296. <https://doi.org/10.3322/caac.21456>
- ⁵Committee on the State of the Science in Ovarian Cancer Research; Board on Health Care Services; Institute of Medicine; National Academies of Sciences, Engineering, and Medicine. *Ovarian cancers: Evolving paradigms in research and care*. Washington (DC): The National Academies Press; April 25, 2016.
- ⁶Austin S, Martin MY, Kim Y, Funkhouser EM, Partridge EE, Pisu M. Disparities in use of gynecologic oncologists for women with ovarian cancer in the United States. *Health Services Research*. 2013;48(3):1135–1153. <https://doi.org/10.1111/1475-6773.12012>
- ⁷Cowan RA, Shuk E, Byrne M, et al. Factors associated with use of a high-volume cancer center by Black women with ovarian cancer. *J Oncol Pract*. 2019;15(9):e769–e776. <https://doi.org/10.1200/JOP.18.00741>
- ⁸Brewer KC, Peterson CE, Davis FG, Hoskins K, Pauls H, Joslin CE. The influence of neighborhood socioeconomic status and race on survival from ovarian cancer: a population-based analysis of Cook County, Illinois. *Annals of Epidemiology*. 2015;25(8):556–563. <https://doi.org/10.1016/j.annepidem.2015.03.021>
- ⁹Duska LR. Access to quality gynecologic oncology care: A work in progress. *Cancer*. 2018;124(13):2680–2683. <https://doi.org/10.1002/cncr.31391>
- ¹⁰Rim SH. Ovarian cancer treatment decisions: Accessing gynecologic oncology care. ProQuest Information & Learning; 2017.
- ¹¹White KM, Walton RJ, Zhao GW, et al. Patterns of surgical care for women with ovarian cancer in New South Wales. *The Australian & New Zealand Journal of Obstetrics & Gynaecology*. 2020;60(4):592–597. <https://doi.org/10.1111/ajo.13180>
- ¹²Chua KJC, Patel RD, Trivedi R, et al. Accuracy in referrals to gynecologic oncologists based on clinical presentation for ovarian mass. *Diagnostics*. 2020;10(2):106. <https://doi.org/10.3390/diagnostics10020106>
- ¹³Jelicic L, Brooker J, Shand L, et al. Experiences and health care preferences of women with ovarian cancer during the diagnosis phase. *Psycho-Oncology*. 2019;28(2):379–385. <https://doi.org/10.1002/pon.4952>

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

- ¹⁴ Villanueva C, Chang J, Bartell SM, Ziogas A, Bristow R, Vieira VM. Contribution of geographic location to disparities in ovarian cancer treatment. *Journal of the National Comprehensive Cancer Network*. 2019;17(11):1318–1329. <https://doi.org/10.6004/jnccn.2019.7325>
- ¹⁵ Hicks-Courant K, Kanter GP, et al. An increase in multi-site practices: The shifting paradigm for gynecologic cancer care delivery. *Gynecologic Oncology*. 2021;160(1):3–9. <https://doi.org/10.1016/j.ygyno.2020.10.030>
- ¹⁶ Minig L, Padilla-Iserte P, Zorrero C. The relevance of gynecologic oncologists to provide high-quality of care to women with gynecological cancer. *Frontiers in Oncology*. 2016;5:308. <https://doi.org/10.3389/fonc.2015.00308>
- ¹⁷ Warren JL, Harlan LC, Trimble EL, Stevens J, Grimes M, Cronin KA. Trends in the receipt of guideline care and survival for women with ovarian cancer: A population-based study. *Gynecologic Oncology*. 2017;145(3):486–492. <https://doi.org/10.1016/j.ygyno.2017.03.016>
- ¹⁸ Weeks K, Lynch CF, West M, et al. Rural disparities in surgical care from gynecologic oncologists among Midwestern ovarian cancer patients. *Gynecologic Oncology*. 2021;160(2):477–484. <https://doi.org/10.1016/j.ygyno.2020.11.006>
- ¹⁹ Karanth S, Fowler ME, Mao XH, et al. Race, socioeconomic status, and health-care access disparities in ovarian cancer treatment and mortality: Systematic review and meta-analysis. *JNCI Cancer Spectrum*. 2019;3(4):pkz084. <https://doi.org/10.1093/jncics/pkz084>
- ²⁰ Collins Y, Holcomb K, Chapman-Davis E, Khabele D, Farley JH. Gynecologic cancer disparities: A report from the Health Disparities Taskforce of the Society of Gynecologic Oncology. *Gynecologic Oncology*. 2014;133(2):353–361. <https://doi.org/10.1016/j.ygyno.2013.12.039>
- ²¹ Ramzan AA, Behbakht K, Corr BR, Sheeder J, Guntupalli SR. Minority race predicts treatment by non-gynecologic oncologists in women with gynecologic cancer. *Annals of Surgical Oncology*. 2018;25(12):3685–3691. <https://doi.org/10.1245/s10434-018-6694-0>
- ²² Cowan R, Esposito-Amery P, Seier K, et al. Ovarian cancer care delivery: diversity in public perception and access to care. *International Journal of Gynecologic Cancer*. 2019;29:A123. <https://doi.org/10.1136/ijgc-2019-IGCS.295>
- ²³ Graham S, Hallisey E, Wilt G, Flanagan B, Rodriguez JL, Peipins L. Sociodemographic disparities in access to ovarian cancer treatment. *Annals of Cancer Epidemiology*. 2019;3. <https://doi.org/10.21037/ace.2019.10.02>
- ²⁴ Sinno A, Li X, Thompson R, et al. Trends and factors associated with radical cytoreductive surgery in the United States: A case for centralized care. *Gynecologic Oncology*. 2017;145(3):493–499. <https://doi.org/10.1016/j.ygyno.2017.03.020>
- ²⁵ Peters ITA, van Haaften C, Trimpos JB. If the mountain does not come to Mohammad: The significance of guest operations for early-stage ovarian cancer. *Journal of Gynecologic Surgery*. 2014;30(5):265–272. <https://doi.org/10.1089/gyn.2013.0088>
- ²⁶ Ricci S, Tergas AI, Long Roche K, et al. Geographic disparities in the distribution of the U.S. gynecologic oncology workforce: A Society of Gynecologic Oncology study. *Gynecologic Oncology Reports*. 2017;22:100–104. <https://doi.org/10.1016/j.gore.2017.11.006>

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

- ²⁷ du Bois A, Rochon J, Pfisterer J, Hoskins WJ. Variations in institutional infrastructure, physician specialization and experience, and outcome in ovarian cancer: a systematic review. *Gynecologic Oncology*. 2009;112(2):422–436. <https://doi.org/10.1016/j.ygyno.2008.09.036>
- ²⁸ Cress RD, Bauer K, O'Malley CD, et al. Surgical staging of early-stage epithelial ovarian cancer: results from the CDC-NPCR ovarian patterns of care study. *Gynecologic Oncology*. 2011;121(1):94–99. <https://doi.org/10.1016/j.ygyno.2010.12.359>
- ²⁹ Weeks K, West M, Lynch C, et al. Patient and provider perspectives on barriers to accessing gynecologic oncologists for ovarian cancer surgical care. *Women's Health Reports*. 2020;1(1):574–583. <https://doi.org/10.1089/whr.2020.0090>
- ³⁰ Stewart SL, Cooney D, Hirsch S, et al. The effect of gynecologic oncologist availability on ovarian cancer mortality. *World Journal of Obstetrics and Gynecology*. 2014;3(2):71–77. <https://doi.org/10.5317/wjog.v3.i2.71>
- ³¹ Rim SH, Hirsch S, Thomas CC, et al. Gynecologic oncologists' involvement on ovarian cancer standard of care receipt and survival. *World Journal of Obstetrics and Gynecology*. 2016;5(2):187–196. <https://doi.org/10.5317/wjog.v5.i2.187>
- ³² Sullivan SA, Stringer E, Van Le L. A review of gynecologic oncology in the global setting: educating and training the next generation of women's health providers. *Obstetrical and Gynecological Survey*. 2019;74(1):40–49. <https://doi.org/10.1097/OGX.0000000000000630>
- ³³ Stewart SL, Townsend JS, Puckett MC, Rim SH. Adherence of primary care physicians to evidence-based recommendations to reduce ovarian cancer mortality. *Journal of Women's Health*. 2016;25(3):235–241. <https://doi.org/10.1089/jwh.2015.5735>
- ³⁴ Hess LM, Stehman FB, Method MW, Weathers TD, Gupta P, Schilder JM. Identification of the optimal pathway to reach an accurate diagnosis in the absence of an early detection strategy for ovarian cancer. *Gynecologic Oncology*. 2012;127(3):564–568. <https://doi.org/10.1016/j.ygyno.2012.08.029>
- ³⁵ Stewart SL, Rim SH, Richards TB. Gynecologic oncologists and ovarian cancer treatment: avenues for improved survival. *Journal of Women's Health*. 2011;20(9):1257–1260. <https://doi.org/10.1089/jwh.2011.3053>
- ³⁶ Gostout BS, Pachman DR, Lechner R. Recognizing and treating ovarian cancer. *Minnesota Medicine*. 2012;95(3):40–42. <https://www.mnmed.org/MMA/media/Minnesota-Medicine-Magazine/March-2012-web.pdf>
- ³⁷ Urban RR, He H, Alfonso R, Hardesty MM, Gray HJ, Goff BA. Ovarian cancer outcomes: predictors of early death. *Gynecologic Oncology*. 2016;140(3):474–480. <https://doi.org/10.1016/j.ygyno.2015.12.021>
- ³⁸ Goff BA, Miller JAW, Matthews B, et al. Involvement of gynecologic oncologists in the treatment of patients with a suspicious ovarian mass. *Obstetrics and Gynecology*. 2011;118(4):854–862. <https://doi.org/10.1097/AOG.0b013e31822dabc6>
- ³⁹ Stewart SL, Lakhani N, Brown PM, Larkin OA, Moore AR, Hayes NS. Gynecologic cancer prevention and control in the National Comprehensive Cancer Control Program: progress, current activities, and future directions. *Journal of Women's Health*. 2013;22(8):651–657. <https://doi.org/10.1089/jwh.2013.4465>

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

- ⁴⁰ Cowan RA, O’Cearbhaill RE, Gardner GJ, et al. Is it time to centralize ovarian cancer care in the United States? *Annals of Surgical Oncology*. 2016;23(3):989–993. <https://doi.org/10.1245/s10434-015-4938-9>
- ⁴¹ Fung-Kee-Fung M, Kennedy E, Biagi J, Colgan T, et al. The optimal organization of gynecologic oncology services: a systematic review. *Current Oncology*. 2015;22(4):e282–e293. <https://doi.org/10.3747/co.22.2482>
- ⁴² Keyver-Paik MD, Abramian A, Domröse C, et al. Integrated care in ovarian cancer “IgV Ovar”: results of a German pilot for higher quality in treatment of ovarian cancer. *Journal of Cancer Research and Clinical Oncology*. 2016;142:481–487. <https://doi.org/10.1007/s00432-015-2055-6>
- ⁴³ Woo YL, Kyrgiou M, Bryant A, Everett T, Dickinson HO. Centralisation of services for gynaecological cancer. *The Cochrane Database of Systematic Reviews*. 2012;3:CD007945. <https://doi.org/10.1002/14651858.CD007945.pub2>
- ⁴⁴ Bristow RE, Chang J, Ziogas A, Gillen DL, Bai L, Vieira VM. Spatial analysis of advanced-stage ovarian cancer mortality in California. *American Journal of Obstetrics and Gynecology*. 2015;213(1):43 e1–e8. <https://doi.org/10.1016/j.ajog.2015.01.045>
- ⁴⁵ van Altena AM, van den Akker PAJ, de Hullu JA, et al. Efficacy of a regional network for ovarian cancer care. *Obstetrics and Gynecology*. 2013;122(3):668–675. <https://doi.org/10.1097/AOG.0b013e3182a054ee>
- ⁴⁶ Canadian Partnership Against Cancer. Pan-Canadian Standards for Gynecologic Oncology; 2018. Accessed February 18, 2019. <https://s22457.pcdn.co/wp-content/uploads/2019/01/Pan-Canadian-Standards-Gynecologic-Oncology-EN.pdf> [PDF-2MB]
- ⁴⁷ Boyd LR, Novetsky AP, Curtin JP. Ovarian cancer care for the underserved: are surgical patterns of care different in a public hospital setting? *Cancer*. 2011;117(4):777–783. <https://doi.org/10.1002/cncr.25490>
- ⁴⁸ University of Colorado. Cancers, Such as Ovarian, Endometrial, and Uterine, are Best Treated by a Gynecologic Oncologist, but Millions of Women Don’t Have Access to One; 2018. Accessed February 18, 2019. <https://cancer.coloradowomenshealth.com/cancer-care-geographic-barriers/>
- ⁴⁹ Kaufman M, Cruz A, Thompson J, et al. A review of the effects of healthcare disparities on the experience and survival of ovarian cancer patients of different racial and ethnic backgrounds. *Journal of Cancer Metastasis and Treatment*. 2019;5:13. <https://doi.org/10.20517/2394-4722.2018.25>
- ⁵⁰ Society of Gynecologic Oncology. Creating a New Paradigm in Gynecologic Cancer Care: Policy Proposals for Delivery, Quality and Reimbursement. A Society of Gynecologic Oncology White Paper; 2013. Accessed February 18, 2019. https://www.sgo.org/wp-content/uploads/2012/09/Practice_Summit_Report_FINAL.pdf [PDF-1.9MB]
- ⁵¹ Horvath LE, Yordan E, Malhotra D, et al. Multidisciplinary care in the oncology setting: historical perspective and data from lung and gynecology multidisciplinary clinics. *Journal of Oncology Practice*. 2010;6(6):e21–e26. <https://doi.org/10.1200/JOP.2010.000073>
- ⁵² Triarico S, Capozza MA, Mastrangelo S, Attinà G, Maurizi P, Ruggiero A. Gynecological cancer among adolescents and young adults (AYA). *Annals of Translational Medicine*. 2020;8(6):397. <https://doi.org/10.21037/atm.2020.02.41>

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

- ⁵³ Shalowitz DI, Vinograd AM, Giuntoli li RL. Geographic access to gynecologic cancer care in the United States. *Gynecologic Oncology*. 2015;138(1):115–120. <https://doi.org/10.1016/j.ygyno.2015.04.025>
- ⁵⁴ Shalowitz DI, Moore CJ. Telemedicine and gynecologic cancer care. *Obstetrics and Gynecology Clinics of North America*. 2020;47(2):271–285. <https://doi.org/10.1016/j.ogc.2020.02.003>
- ⁵⁵ White KM, Seale H, Harrison R. Enhancing ovarian cancer care: a systematic review of guideline adherence and clinical variation. *BMC Public Health*. 2019;19(1):296. <http://doi.org/10.1186/s12889-019-6633-4>
- ⁵⁶ Erem AS, Appiah-Kubi A, Konney TO, et al. Gynecologic oncology sub-specialty training in Ghana: a model for sustainable impact on gynecologic cancer care in sub-Saharan Africa. *Frontiers in Public Health*. 2020;8:603391. <https://doi.org/10.3389/fpubh.2020.603391>.
- ⁵⁷ Cass I, Duska LR, Blank SB, et al. Stress and burnout among gynecologic oncologists: A Society of Gynecologic Oncology evidence-based review and recommendations. *Gynecologic Oncology*. 2016;143:421–427. <https://doi.org/10.1016/j.ygyno.2016.08.319>
- ⁵⁸ Ovarian Cancer Research Alliance. Survivors Teaching Students® website. Accessed February 18, 2019. <https://ocrahope.org/get-involved/survivors-teaching-students/>
- ⁵⁹ Frieden TR. Six components necessary for effective public health program implementation. *AJPH*. 2014;104(1):17–22. <https://doi.org/10.2105/AJPH.2013.301608>
- ⁶⁰ Brownson RC, Fielding JE, Maylahn CM. Evidence-based public health: a fundamental concept for public health practice. *Annual Review of Public Health*. 2009;30:175–201. <https://doi.org/10.1146/annurev.publhealth.031308.100134>
- ⁶¹ Wandersman A, Duffy J, Flaspohler P, et al. Bridging the gap between prevention research and practice: the Interactive Systems Framework for Dissemination and Implementation. *American Journal of Community Psychology*. 2008;41(3-4):171–181. <https://doi.org/10.1007/s10464-008-9174-z>

APPENDIX A: 2016 NASEM REPORT RECOMMENDATIONS

From National Academies of Sciences, Engineering, and Medicine. *Ovarian Cancers: Evolving Paradigms in Research and Care*. The National Academies Press; 2016. Recommendations 7 and 11 pertain to increasing adherence to standard treatment guidelines.

THE BIOLOGY OF OVARIAN CANCER: RECOMMENDATION 1

Researchers and funding organizations should design and prioritize preclinical, clinical, and population-based research agendas in the context of the different ovarian cancer subtypes. A top priority should be elucidating the cellular origins and pathogenesis of each subtype. Particular attention should be paid to:

- Tumor characteristics such as microenvironment, intratumoral heterogeneity, and progression pathways.
- Development of experimental model systems that reflect ovarian cancer heterogeneity.
- Incorporation of the multisubtype paradigm into prevention, screening, diagnosis, and treatment research.

THE BIOLOGY OF OVARIAN CANCER: RECOMMENDATION 2

Pathology organizations, oncology professional groups, and ovarian cancer researchers should reach consensus on diagnostic criteria, nomenclature and classification schemes that reflect the

morphological and molecular heterogeneity of ovarian cancers and promote the universal adoption of a standardized taxonomy.

RISK ASSESSMENT, SCREENING, AND EARLY DETECTION: RECOMMENDATION 3

Researchers, public health practitioners, and clinicians should develop and implement innovative strategies to increase genetic counseling and testing as well as cascade testing, for known germline predispositions in appropriate populations (e.g., untested ovarian cancer survivors, relatives of individuals who tested positive). Furthermore, researchers, clinicians, and commercial laboratories should determine the analytic performance and clinical utility of testing for other germline mutations beyond BRCA1 and BRCA2 and the mismatch repair genes associated with Lynch Syndrome.

RISK ASSESSMENT, SCREENING, AND EARLY DETECTION: RECOMMENDATION 4

Researchers and funding organizations should identify and evaluate the underlying mechanisms of both new and established risk factors for ovarian cancer to develop and validate a dynamic risk assessment tool accounting for the various ovarian cancer subtypes. Furthermore, a spectrum of risk factors should be considered, including genetics, hormonal and other biological markers, behavioral and social factors, and environmental exposures.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

RISK ASSESSMENT, SCREENING, AND EARLY DETECTION: RECOMMENDATION 5

Clinicians, researchers, and funding organizations should focus on quantifying the risk-benefit balance of nonsurgical and surgical prevention strategies for specific subtypes and at-risk populations.

RISK ASSESSMENT, SCREENING, AND EARLY DETECTION: RECOMMENDATION 6

Researchers and funding organizations should focus on the development and assessment of early detection strategies that extend beyond current imaging modalities and biomarkers and reflect the pathobiology of each ovarian cancer subtype.

DIAGNOSIS AND TREATMENT: RECOMMENDATION 7

To reduce disparities in healthcare delivery outcomes, clinicians and researchers should investigate methods to ensure consistent implementation of current standards of care (e.g., access to specialist care, surgical management, chemotherapy regimen and route of administration, and universal germline genetic testing for newly diagnosed women) that are linked to quality outcome metrics.

DIAGNOSIS AND TREATMENT: RECOMMENDATION 8

Clinicians and researchers should focus on improvement of current treatment strategies, including:

- Development and validation of comprehensive clinical, histopathologic,

and molecular characterizations that better inform precision medicine approaches for women with newly diagnosed and recurrent disease.

- Advancement in the understanding of the mechanisms of recurrent and drug-resistant (e.g., platinum-resistant) disease and development of a more informative classification system.
- Identification of predictors of response to therapy and near-term indicators of efficacy.
- Determination of the optimal type and timing of surgery in women newly diagnosed with ovarian cancer and efficacy of subsequent cytoreduction procedures for women with recurrent disease.

DIAGNOSIS AND TREATMENT: RECOMMENDATION 9

Researchers should develop more effective pharmacologic and nonpharmacologic therapies and combinations of therapies that leverage the unique biology and clinical course of ovarian cancer. These approaches should include:

- Developing immunologic and molecularly driven treatment approaches specific to the different ovarian subtypes.
- Identifying markets of therapeutic resistance and exceptional response.
- Using interdisciplinary teams to design and conduct statistically efficient and information-rich clinical studies.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

SUPPORTIVE CARE ALONG THE SURVIVORSHIP TRAJECTORY: RECOMMENDATION 10

Researchers and funding organizations should study the supportive care needs of patients with ovarian cancer throughout the disease trajectory, including:

- Identifying the array of factors that put women at higher risk for poor physical and psychosocial outcomes.
- Identifying and overcoming barriers to systematic assessment of physical and psychosocial effects of disease and treatment.
- Developing and implementing more effective supportive care and self-management interventions.
- Defining the parameters that indicate when patients and their families would benefit from transitioning to end-of-life care.

DISSEMINATION AND IMPLEMENTATION OF KNOWLEDGE: RECOMMENDATION 11

Stakeholders in ovarian cancer research, clinical care, and advocacy should coordinate efforts to develop and implement efficient, effective, and reliable methods for rapid dissemination and implementation of evidence-based information and practices to patients, families, healthcare providers, advocates, and other relevant parties. These efforts should include:

- Researching impediments to adopting current evidence-based practices.
- Using multiple existing dissemination modalities (e.g., continuing education, advocacy efforts) to distribute messages strongly supported by the evidence base.
- Evaluating newer pathways of dissemination and implementation (e.g., social media, telemedicine with specialists).

APPENDIX B: LITERATURE SEARCH METHODS

In late 2018, CDC conducted a tailored search of published and gray literature to identify:

- Facilitators to receipt of care by a gynecologic oncologist among women with ovarian cancer.
- Barriers to receipt of care by a gynecologic oncologist among women with ovarian cancer.
- Promising strategies with the potential for increasing receipt of ovarian cancer care from a gynecologic oncologist.

In early 2021, we replicated this search to identify new literature published after the 2018 search. Below, we describe our methods for this literature search.

Search Platforms, Strings, and Parameters

Search platforms for the published literature included PubMed, PubMed Central, OVID, and EBSCO. Search platforms for the gray literature included Google™ and Google Scholar™. Across both search types, we used three search strings:

- “ovarian cancer” AND “gynecologic oncologist”
- “gynecologic oncologist” AND “barrier”
- “gynecologic oncologist” AND “access”

For the 2018 search, search parameters included limiting results to resources published in English within the last 10 years (2008–2018). For the 2021 search, parameters included limiting results to resources published in English from 2018 to 2021.

Eligibility Review

We reviewed all results from the published and gray literature for eligibility in a multiple-step process. For the published literature, one person reviewed article titles retrieved from each search string for potential relevance (DN in 2018; GC in 2021). We pooled and de-duplicated articles retrieved across search platforms and search strings that were deemed potentially relevant during the title screening. We then reviewed abstracts from this set of potentially relevant, de-duplicated articles and flagged for full-text review articles still viewed as potentially relevant. In 2018, three reviewers screened full-text resources for eligibility (DN, JM, and JS)¹ In 2021, one person reviewed full-text resources for eligibility (GC).

For the gray literature, one person reviewed titles of resources in the first five pages of results for potential relevance (DN in 2018; GC in 2021). We pooled and de-duplicated articles retrieved across search platforms and search strings that were deemed potentially relevant during the title screening. Two reviewers screened full-text resources for eligibility in 2018 (DN and JM), and one person reviewed full-text resources for relevance in 2021 (GC).

Articles from the published literature and resources from the gray literature were considered eligible if they met the following criteria:

- Published in English.
- Published within the past 10 years (2008–2018) or published from 2018 to 2021.

¹One reviewer (DN) oriented all other reviewers to the eligibility review process.

Action Plan to Increase Receipt of Ovarian Cancer Care from Gynecologic Oncologists

- Included information regarding facilitators or barriers to receipt of ovarian cancer care from a gynecologic oncologist.
- Included information regarding recommended strategies to increase receipt of ovarian cancer care from a gynecologic oncologist.

The following table depicts our processes for reviewing the published and gray literature and associated results. Implementation of these processes resulted in a total of 64 eligible resources across the published and gray literature.

2018 Search

Published Literature	
Results: Based on all searches.	1,727
Potentially Relevant: Based on title review and de-duplication.	100
Full-Text Review: Based on abstract review.	64
Eligible	36
Gray Literature	
Results: Based on all searches	-117,212
Potentially Relevant: Based on review of titles in the first five pages of results.	26
Eligible	13

2021 Updated Search

Published Literature	
Results: Based on all searches.	787
Potentially Relevant: Based on title review and de-duplication.	53
Full-Text Review: Based on abstract review.	23
Eligible	12
Gray Literature	
Results: Based on all searches	-1,424
Potentially Relevant: Based on review of titles in the first five pages of results.	30
Eligible	3

Data Extraction

We extracted relevant data from the 64 eligible resources into documents organized by specific fields. In 2018, three reviewers (DN, JM, and JS) extracted data from the eligible published literature. Two reviewers (DN and JM) extracted data from the eligible gray literature.² In 2021, one reviewer (GC) extracted data from the eligible published and gray literature.

² One reviewer (DN) oriented all other reviewers to the data extraction process.

APPENDIX C: POSSIBLE METHODS FOR PHYSICIAN PAYMENT SUGGESTED BY THE SOCIETY OF GYNECOLOGIC ONCOLOGY¹

February 2013

Paying more for certain services

- Payments for currently unreimbursed services, such as care coordination.
- Higher payments for currently reimbursed services.

Paying based on quality of services

- Pay for performance.
- Non-payment for services required to treat complications, infections, and other problems.
- Non-payment for services that fail to meet minimum quality standards.
- Quality-based tiers.

Combining separate services into a single payment

- Case management payments.
- Case rates or payments for episodes of care.
- Practice capitation.

Making payment dependent on the amount and cost of services delivered by other physicians or providers

- Resource use-based pay-for-performance.
- Shared savings and gainsharing.
- Bundling multiple providers into a single episode payment.
- Comprehensive care payment, global payment, or capitation.
- Virtual bundling.
- Resource use-based tiers.

Paying to support specific provider structures, systems, and locations

- Paying physicians more for locating to geographic areas with a shortage of physicians.
- Paying physicians more if they use health information technology.
- Paying to help physicians create care coordination systems.
- Paying a fixed amount directly to medical groups for each enrolled patient for services over a span of time, such as per month, using a population-based model; use report cards to measure individual physician performance.

Different payment models for different types of patients

- Patient-centered medical homes, accountable care organizations, or medical neighborhood.
- Comprehensive care or global payments with a spending target.
- Episodes of care.
- Fee for service.
- Bundle all services that a physician provides for treatment of a chronic disease.
- Bundle physician and hospital payments.

¹National Academies of Sciences, Engineering, and Medicine. *Ovarian Cancers: Evolving Paradigms in Research and Care*. The National Academies Press; 2016.