

Integrated Health Systems for Better Cancer Survivorship

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Integrated health systems for better cancer survivorship



KEY POINTS

- I have no disclosure; no conflict of interest
- Trends in cancer medicine impacting health care delivery
- 360-degree approach for better cancer care survivorship
- Digital platform to enhance operation and outreach
- Expanding expert-level care delivery in all regions, including remote areas
- Operationalizing expert level care pathway and precision genomic medicine at touch point of care
- Risk stratified long term survivorship complete care program

Rapid advancement in medical knowledge and oncology drug development

Doubling time of scientific knowledge in cancer medicine



1950s: 50 years

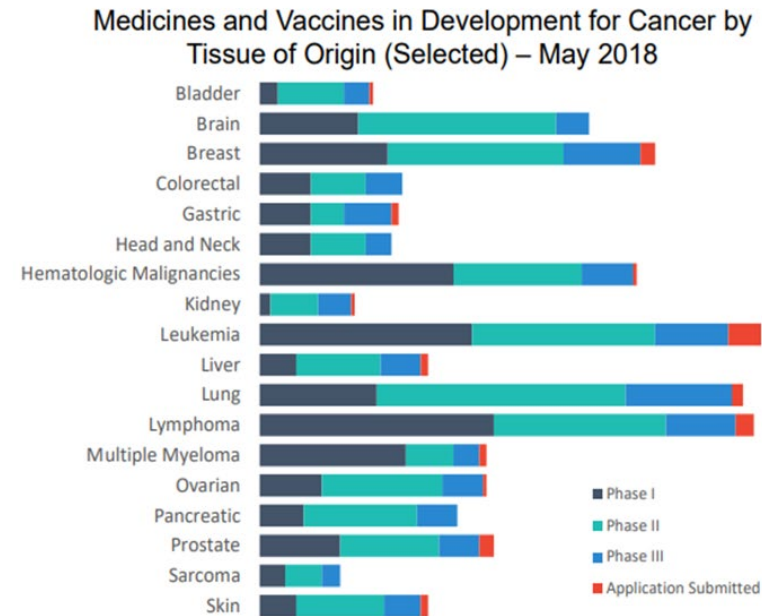


1980s: 7 years



2020s: 73 days

Promise in the Pipeline: More than 1,100 Medicines in Development for Various Cancers



“These are exciting times... the pace of discovery and application of new knowledge to patient care is rapidly accelerating.”

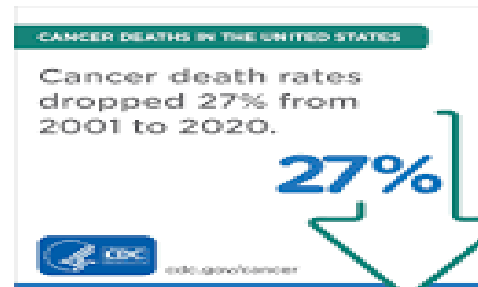
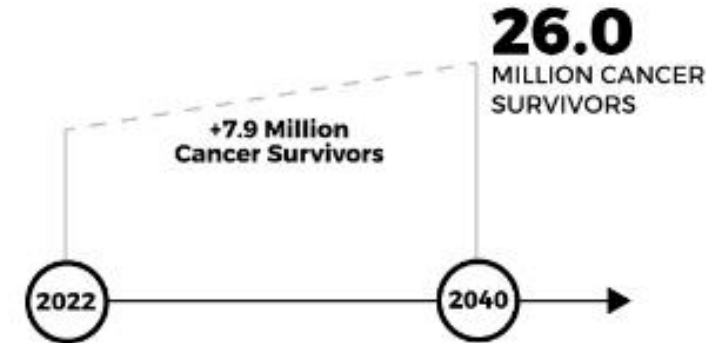
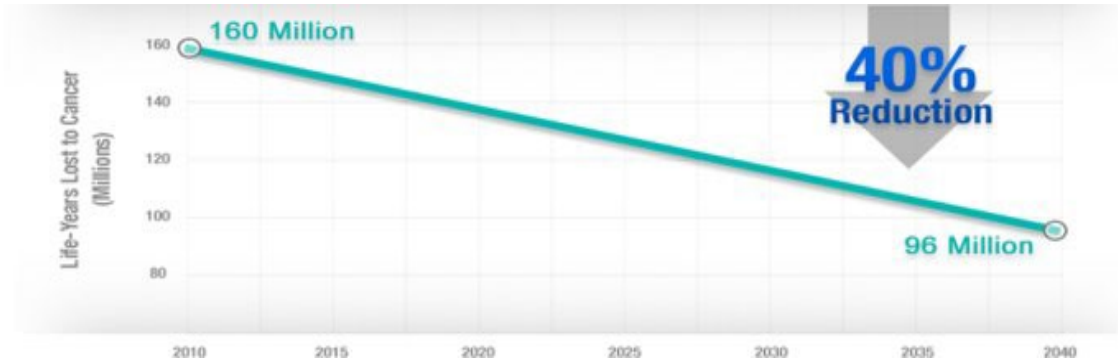
— Dr. Jose Baselga, Physician-in-Chief, Memorial Sloan Kettering Cancer Center

*Some medicines may be in more than one therapeutic category. Sources: PhRMA Medicines in Development for Cancer, May 2018, American Association for Cancer Research. *Jose Baselga, MD, PhD

Sources: PhRMA Medicines in Development for Cancer, May 2018, American Association for Cancer Research, Jose Baselga, MD, PhD

Addressing care needs of growing cancer population

The number of cancer survivors in the United States is projected to grow to 26M by 2040 due to increasing prevalence of cancer and better survival rates.



Source: <https://cancercontrol.cancer.gov/ocs/statistics>

Innovating cancer care: KP's structured, 360-degree approach

Kaiser Permanente has invested in coordinated, connected, and personalized end-to-end cancer care. Care is patient centered and technology supported for structured multidiscipline and multispecialty care delivery.



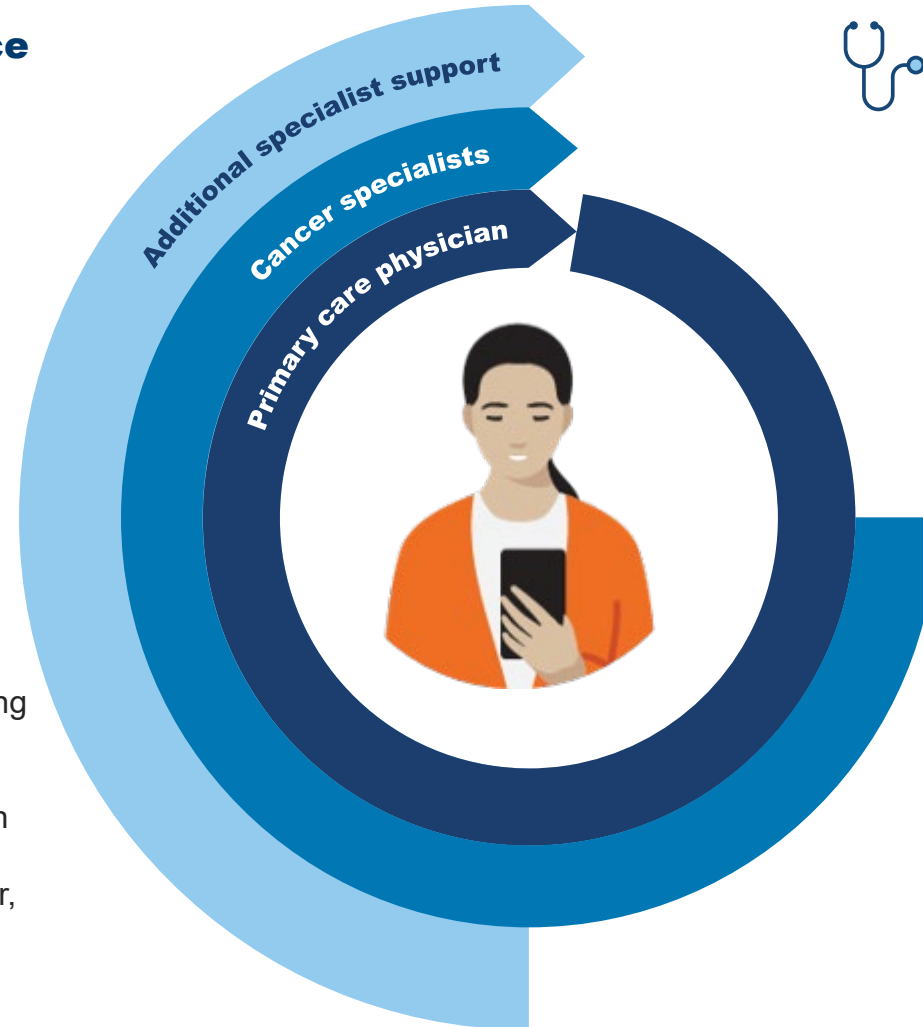
Survivorship and Surveillance

- Wellness programs
- Peer support
- Tailored screening, H&P
- Complete chronic care
- Late/long-term side effects management
- Hereditary risk assessment and management
- Embedded primary care in cancer survivorship (EPICS) study



Treatment

- Clinical trials
- Expert Treatment care pathways, including Precision Medicine/genomic
- Oral chemo pharmacy program - Safety
- Chemotherapy immunotherapy education
- Multidiscipline acute and chronic toxicity program & protocols (e.g., cardiac, ocular, pulmonary, neuro, lymphedema)
- Excellence in cancer Expert oncology program



Prevention and Screening

- Complete preventive care
- Clinically effective lifestyle and health behavior change programs and services
- Health coaching digital apps
- Mammography
- Colonoscopy/FIT kit
- Vaccination: HPV
- Pap smear and HPV screening
- Skin cancer screening



Diagnosis

- immunohistopathology diagnosis
- Molecular Genomic tests
- Stage specific workup pathways
- Cancer care coordination
- Distress screening

Comprehensive digital cancer platform



Prevention and Screening

Population: 12.7M members
Goal: Healthy communities
How: Digital screening reminders proactive office encounters , best practice alert, sure net programs



Survivorship and Surveillance

Population: Cancer survivors
Goal: Healthy communities
How: Digital survivorship tool

Digital tools for:

- Actionable tracking system for virtual navigation
- Medical provider decision support tool
- Patient reported outcomes
- Wellness coaching
- Risk stratification for multidiscipline involvement in care



Diagnosis

Population: Suspected cancer workup
Goal: No sleepless nights; no low value care
How: Tracking and best access

Digital tools for:

- Actionable tracking system for virtual navigation
- Medical provider decision supported ordering tool
- Patient reported outcomes
- Member healthy lifestyle engagement/education



Treatment

Population: Active cancer treatment
Goal: Best possible outcome
How: Coordination, consistency, evidence-based care

Digital tools for:

- Actionable tracking system for virtual navigation
- Medical provider expert decision supported order options tool
- Patient reported outcomes
- Member healthy lifestyle engagement/education
- On EMR tele-consultations and tele-treatment
- Self care apps, automated E-visits, telehealth visit

The digital tool activates when a member joins KP and seamlessly guides prevention, diagnosis, and treatment.

Complete care programs: Proactive care

- All KP clinicians, including those in Oncology departments, act on patient's 'Proactive Care Checklists' to address care gaps on day of visit or E-visit
- Example:
Member is due for a depression screening, ...mammography, colon check

The screenshot displays the Epic EHR interface for a patient's 'Proactive Care' page. The top navigation bar includes 'Epic', 'Home', 'Schedule', 'In Basket', 'Chart', 'Encounter', 'Tel Enc', 'Message Enc', 'Patient Lists', and 'Links'. Below this, a secondary navigation bar shows 'SnapShot', 'Chart Review', 'Proactive Care' (selected), 'Problem List', 'History', and 'Communications'. The main content area is titled 'Proactive Care' and features a 'News' section with a message dated 5/1/2023 about Mental Health Awareness Month. Below the news, patient demographics are shown: Preferred name: MRI, EYCCQPRRX, MFRIUL S; Language: ENGLISH; PCP: [redacted]; DOB: [redacted] 70 years; Gender: [redacted]; Last PCP Visit: 05/02/2023. A 'Completed' section is visible. The 'Care Gaps' section lists three items: 'Depression Screening Due' (highlighted in yellow), 'DEXA Screening Due', and 'Life Care Planning Due'. The 'Immunization Care Gaps' section is partially visible at the bottom. On the left side of the interface, there are buttons for 'Code Status / Intensity of Tx: Prior' and 'EVALUATE DX', along with a search bar and a list of allergies: Amoxicillin With Clavulanate Potassium, Atenolol, Gabapentin, and Lisinopril. At the bottom left, it shows 'LAST 10 VISITS' with 8 RAD, RT, Unknown visits and 1 Imaging visit.

KP digital pathway: 150+ pathways, Aim 80% adherence in 2023

Organ System	Regional Subspecialty Draft	National Subspecialty Consensus	IR Oncology Chiefs Approval	Beacon Integration on Platform	Metrics
Breast	HR+(adj), HR+/HER2- (neoadjuvant, adj, met), HER2+ (neoadjuvant, adj, met), TNBC (neoadjuvant, adj, met), Supp Care**				
Cutaneous	Melanoma (adj, in-transit, met), BCC (neoadjuvant, met)				
CNS	GBM (New, Recurrent)*, Radiation Necrosis*				
Colorectal	CRC (Stage IV)*				
Gastrointestinal	Biliary (met)*, E/GEJ/GAC (curative, neoadjuvant, met), ESCC (met), HCC (stage B/C), Pancreas (adj, met)				
Genitourinary	Prostate (nmHSPC,mHSPC, nmCRPC, mCRPC), Bladder (met)*, RCC (adj, met)				
Gynecologic Oncology	Ovarian (Stage II/III/IV), Cervical (locally adv, met), Endometrial (adv)*				
Head and Neck	Nasopharyngeal, Non-Nasopharyngeal				
Hematology-Benign	VTE^, ITP^, TMA^				
Hematology-Malignant	APL*, ALL, CML, CLL/SLL, DLBCL, FL, HL, MM, PCNSL*, AML, MCL, MF, WM				
Neuroendocrine	Gastrointestinal, Pancreatic, Lung, NET/NEC				
Thoracic	NSCLC (Stage II, III, IV), SCLC (Stage I-IIA, IIB-IV), Mesothelioma, Thymoma				

Digital pathways for genomic-guided diagnosis and treatment

KP Diagnostic Pathways: Molecular

Searchable by cancer type, the integrated tool provides recommendations and an easy button to order tests immediately.

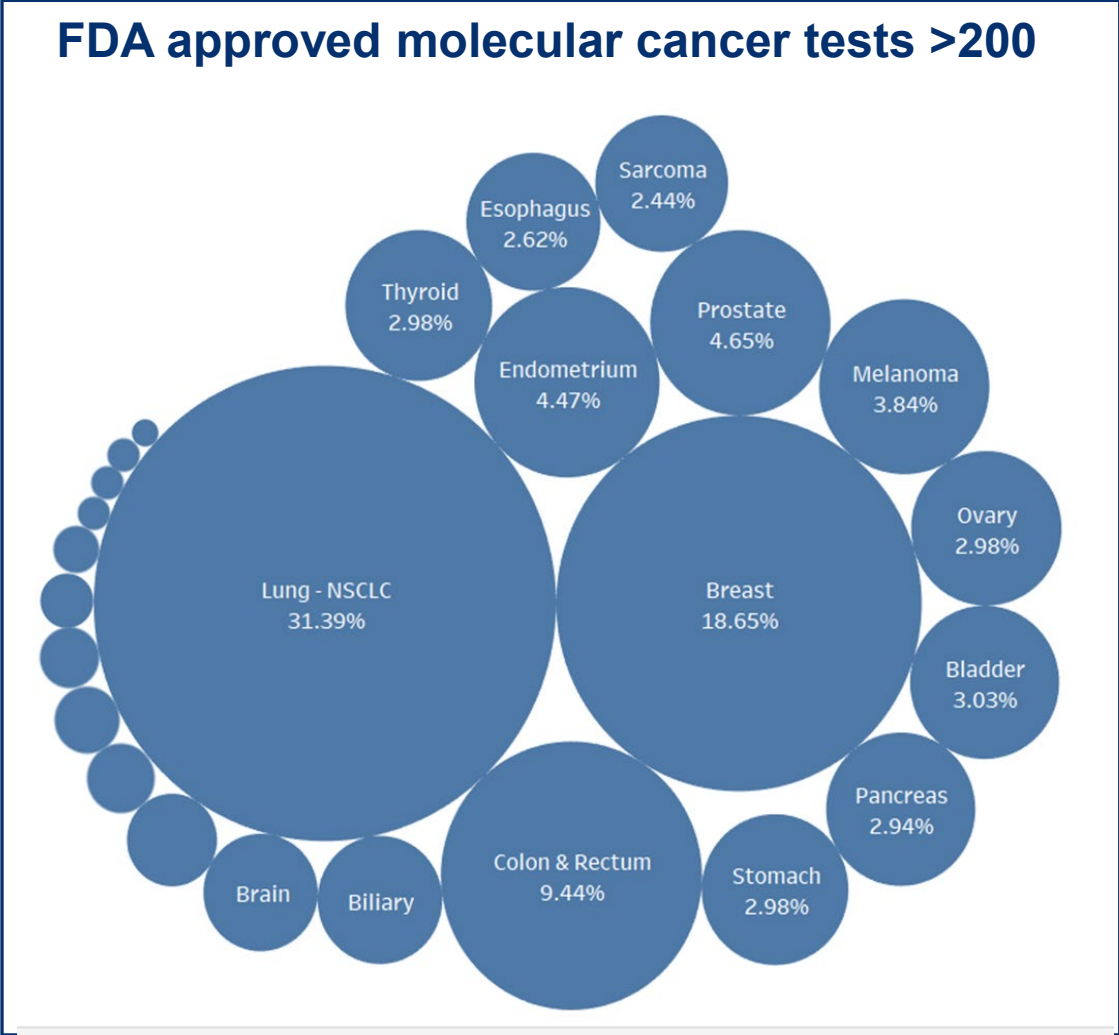
Molecular Testing for Oncology

Guides by Cancer Type

Instructions: Navigate to the appropriate Molecular Diagnostic Decision guide using the links below

Molecular Testing Laboratory Information

Benign Hematology	GU	Malignant Hematology
Breast	Gyn Onc	Melanoma
Cancer Unknown Primary	Head & Neck	Sarcoma
GI	Lung	



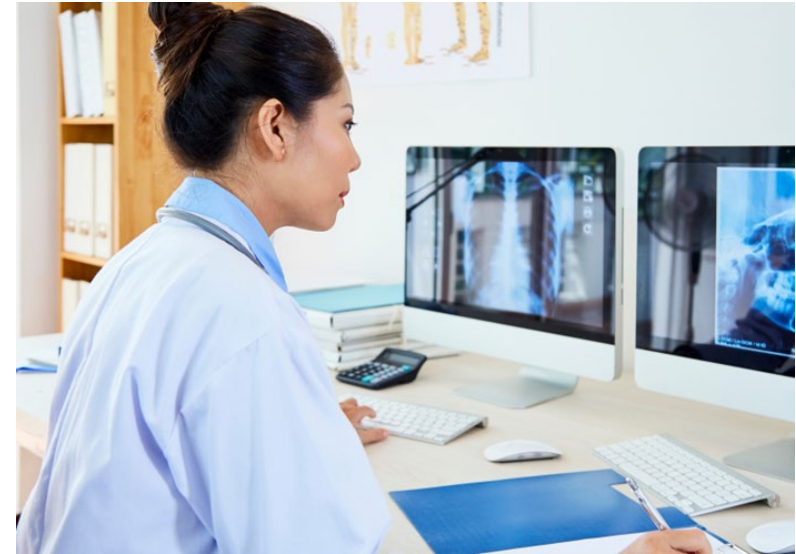
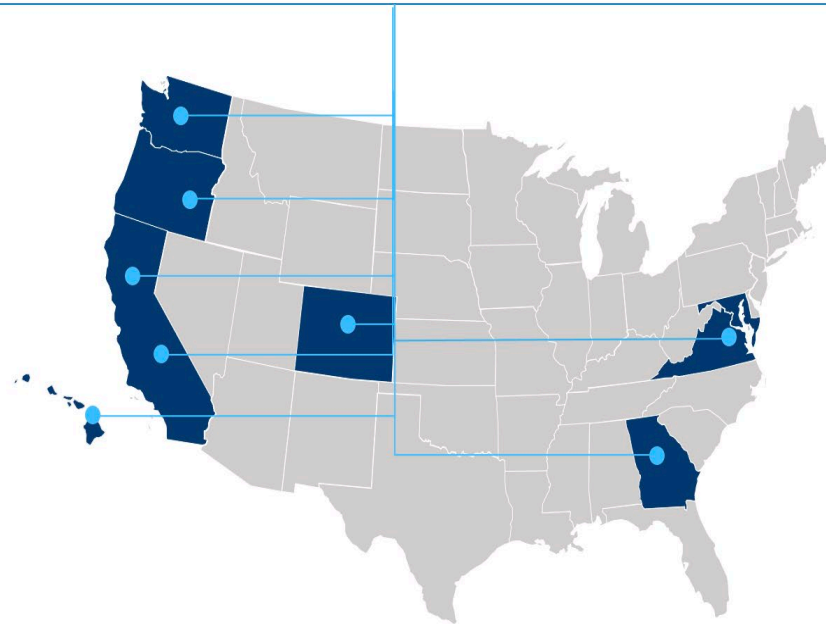
'Excellence in Cancer Care' subspecialty expert & expert review programs

11 National subspecialty cancer expert programs form the base of Kaiser Permanente's national cancer expertise.

11 Programs

- Thoracic/Lung
- Genitourinary
- Gastrointestinal
- Breast
- Head and Neck
- Sarcoma
- Malignant Hematology
- Cutaneous/Melanoma
- Central Nervous System
- Genomics
- GYN Oncology

Kaiser Permanente National Virtual Cancer Centers of Excellence



Benefits:

- KP members in all regions will have access to expert level care and opinions
- National experts are at the touchpoint of care to all KP oncologists

Cancer research: Guiding care from diagnosis to survivorship

Department of research and evaluation

Integrated clinical trials options within the care pathway at touch point of care

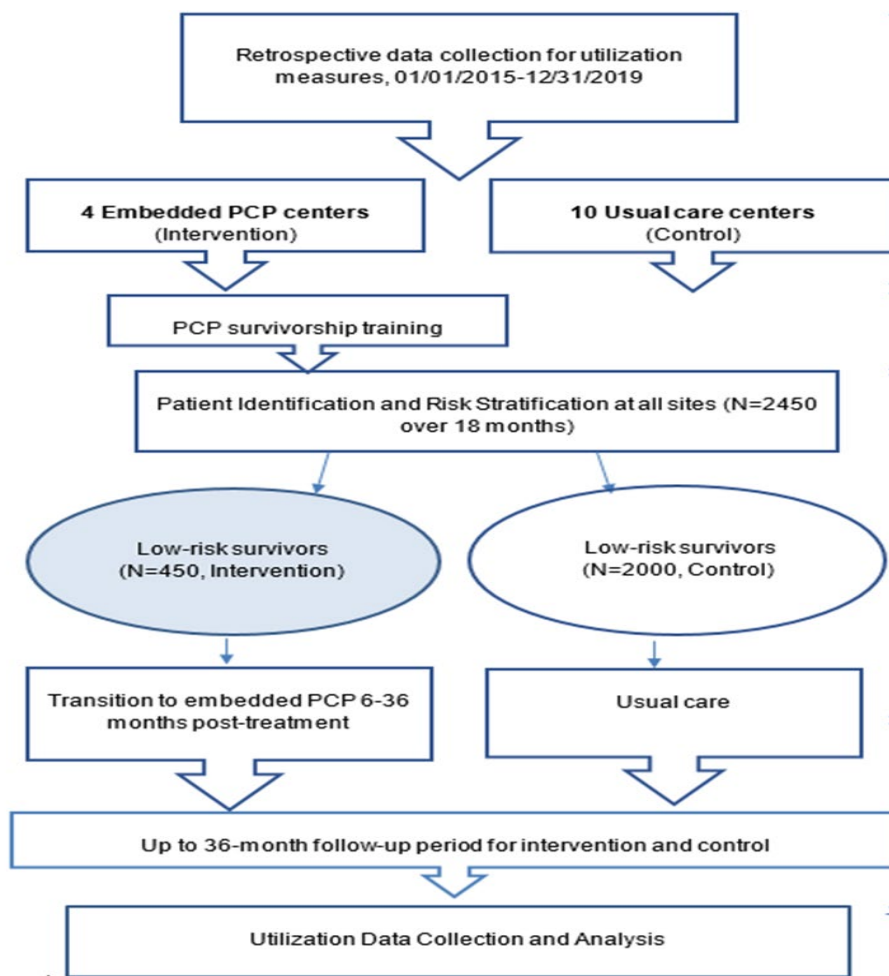
- Cancer control studies
- Basket studies
- Clinical trials
- Genomic research Bank

Examples of research in cancer survivorship:

- Health care delivery and implementation
- Quality of life
- Health disparities (mitigated in integrated health care systems)
- Late effects of cancer treatments
- Risk factors for breast cancer recurrence



Risk stratified long term survivorship care,



Integrated Cancer Survivorship and Primary Care

We are enhancing how we provide your cancer survivorship care.

We are building the right team for the best care after your cancer treatment.

Our new integrated cancer survivorship approach is designed for early-stage breast cancer and colorectal cancer patients who have finished treatment. We will place trained Survivorship Care Physicians (PCPs) within your oncology team to provide care for you.



Providing the best possible cancer survivorship care.

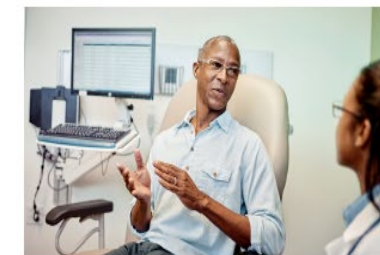
Our Survivorship Care Specialist PCPs have received training by our oncologists on how to care for cancer survivors.

Our Survivorship Care Specialist PCPs will:

- Lead your post-treatment survivorship care
- Provide specialized cancer surveillance and survivorship services
- Allow you to manage all general and survivorship health needs with one physician
- Provide your care in your oncology clinic

The new normal for cancer survivorship care at Kaiser Permanente Southern California.

- Our Survivorship Care Specialist PCPs are partnering directly with your oncology team.
- Speak to your oncologist today about this new program!



Risk stratification: Algorithm performance

Patients sent to oncologist for review	1319
Eligible for referral per oncologist	774
Not eligible per oncologist	193
Not followed by oncologist	110
No reply from oncologist	240
Patients referred	705
New consultations completed	501

76% eligible (excluding not followed/no response)

Concurrently running algorithm for control patients

- Potential issue: No oncologist review for control patients → matching







Reasons for ineligibility:

- Suspicious for recurrence (6%)
- New primary disease (3%)
- Considered high-risk based on genetic/tumor factors (9%)
- Co-occurring heme/oncology disorder (9%)
- Treatment-related concerns (e.g., declined chemotherapy) (7%)
- Complex case/condition (11%)
- Patient preference per conversation with oncologist (32%)
- Other (19%)
- Lost to follow-up (4%)

Digital and in person Collaborative multidiscipline and multi-specialty care programs

<https://healthy.kaiserpermanente.org/health-wellness/cancer-care/recovery>

Clinical support programs

-  Cardiac toxicity-
-  Ocular toxicity-
-  Neuro toxicity
-  Lymphedema management
-  Oral chemotherapy program
-  Palliative care and supportive medicine
- Infectious reactivation prevention

Cancer recovery and survivorship



Cancer patient's care journey isn't over when treatment ends. It still requires careful planning, attention, and support. And staying healthy physically, mentally, and emotionally is vital to recovery. At Kaiser Permanente, we're committed to caring for the whole person at every step.

Providing support services for survivors and caregivers on Kp.org:

- **Recovery plan:** After cancer treatment
 - Getting back to good health
- **Survivorship tools:** Life after cancer
 - Body, mind and spirit
- **Guidance for caregivers:** A resource guide
 - Tools and tips



Click on the resource or scan the QR code for more information.



**Wellness Coaching
by Phone**



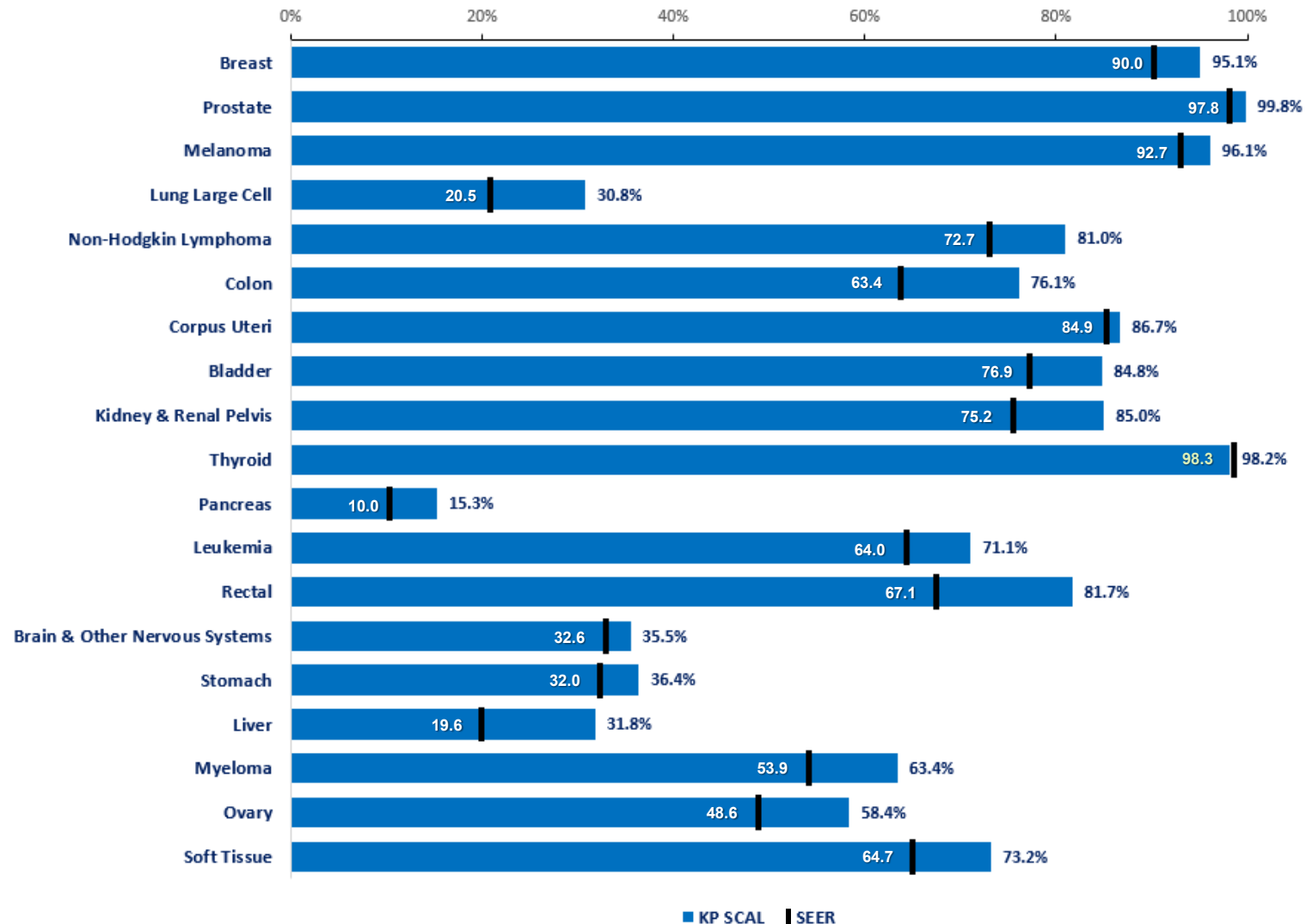
**Wellness Coaching
by Phone**

Wellness Programs and Tools for Cancer Survivorship

Take the next steps to help improve your health and wellness throughout and beyond your cancer diagnosis and recovery. Discover tools and resources to help you manage a healthy lifestyle.

SCAL cancer survival rates are above SEER National Averages¹

KP 5-Year 2011 – 2017 Relative Survival by Site All Stages



¹Top 20 above SEER rates except for Thyroid (0.1% difference); Data source: 2020 Annual Cancer Registry Report Surveillance, Epidemiology, and End Results (SEER) National Cancer Institute Program

Summary

- Medical knowledge and technology growth has led to unprecedented success in cancer survivorship
- Telehealth and technology assisted programs are a major part of care delivery, not as an add-on service . Patients have access to great care however and whenever they choose to engage with us at Kaiser Permanente
- Integrated seamless care is feasible with connected and coordinated care of multidiscipline multispecialty.
- Technology-assisted design with risk stratification care plans has forged the path for all hands in for survivorship in our fight against cancer.
- Digital Pathways at touch point of care with direct order capability enable multidiscipline multispecialty physicians to provide personalized cancer treatment.
- Our structured Virtual Cancer Center will ensure that members across the country have access to all KP cancer experts.

Recommendations

- If we treat health as nation's number one asset¹, national planning and funding to get cancer care delivery right can curb rising health care cost
- Better Payer pay model for telehealth services is needed as it is a significant seamless part of care delivery, not as an add-on service.
- Invest in Integrated health care delivery and AI technology .
- Increase oncology trained workforce: more physicians to allow full sub-specialization and more oncology trained nursing
- Current standard recommended follow up post treatment is not evidence based and has caused *fear based overflown unmanageable Oncology clinic access demand. Nationally funded long-term evidence-based studies including pt engaged digital care models are needed*
- Incorporate survivorship care in curriculum of primary care physician and nursing.
- Retain oncologists in longer time practice: turn the anxiety generated life-long board exams to Structured CME learning modules in this fast-paced field where board questions do not apply any longer.
- ¹.Clarence James Gamble Professor of Economics and Demography)<https://www.hsph.harvard.edu/news/magazine/public-health-economy>



Thank you.

Survivorship: Quality of Life

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