MSK Direct

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Memorial Sloan Kettering Cancer Center

MSK Direct

A comprehensive employer benefits solution that provides equitable, personalized access to the lifesaving discoveries and subspecialized expertise of Memorial Sloan Kettering Cancer Center (MSK).

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Screening & Prevention Resources
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Multidisciplinary support and education to guide and engage members

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The colorectal cancer screening landscape

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Colorectal cancer statistics

Estimated Deaths

Male				Female		
Lung & bronchus	65,790	20%		Lung & bronchus	59,280	21%
Prostate	35,250	11%		Breast	42,250	15%
Colon & rectum	28,700	9%		Pancreas	24,480	8%
Pancreas	27,270	8%		Colon & rectum	24,310	8%
Liver & intrahepatic bile duct	19,120	6%		Uterine corpus	13,250	5%
Leukemia	13,640	4%		Ovary	12,740	4%
Esophagus	12,880	4%		Liver & intrahepatic bile duct	10,720	4%
Urinary bladder	12,290	4%		Leukemia	10,030	3%
Non-Hodgkin lymphoma	11,780	4%		Non-Hodgkin lymphoma	8,360	3%
Brain & other nervous system	10,690	3%		Brain & other nervous system	8,070	3%
All sites	**322,800**			**All sites**	**288,920**	

Estimated New Cases in 2024	152,810
Estimated Deaths in 2024	53,010 (↑)

http://seer.cancer.gov/statfacts/html/colorect.html;
Siegel et al CA Cancer J Clin. 2024

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Recent reassuring statistics

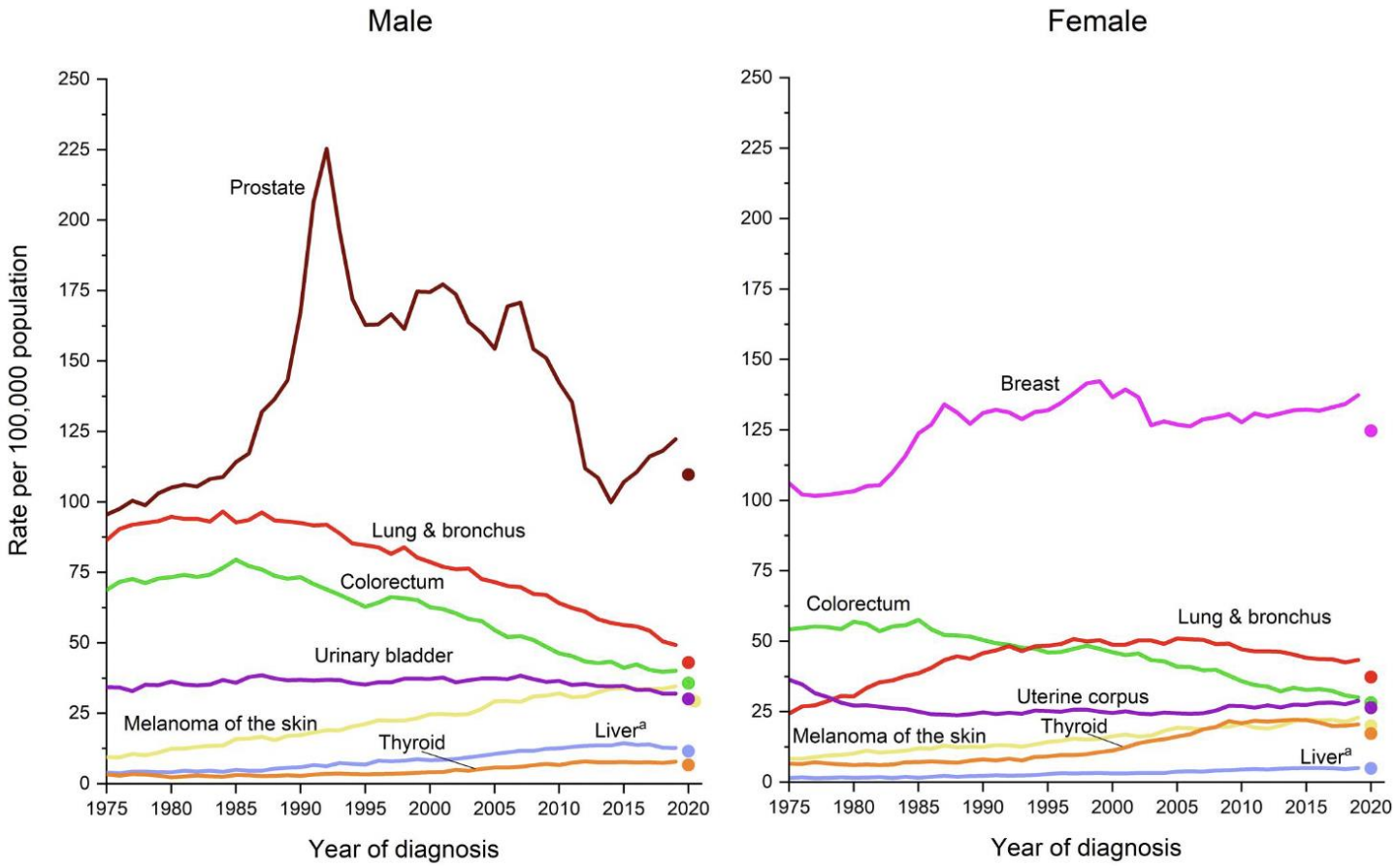

FIGURE 3 Trends in incidence rates for selected cancers by sex, United States, 1975–2020. Rates are age adjusted to the 2000 US standard population and adjusted for delays in reporting. Incidence data for 2020 are shown separate from trend lines. [a]Liver includes intrahepatic bile duct.

Siegel et al.CA Cancer 2024

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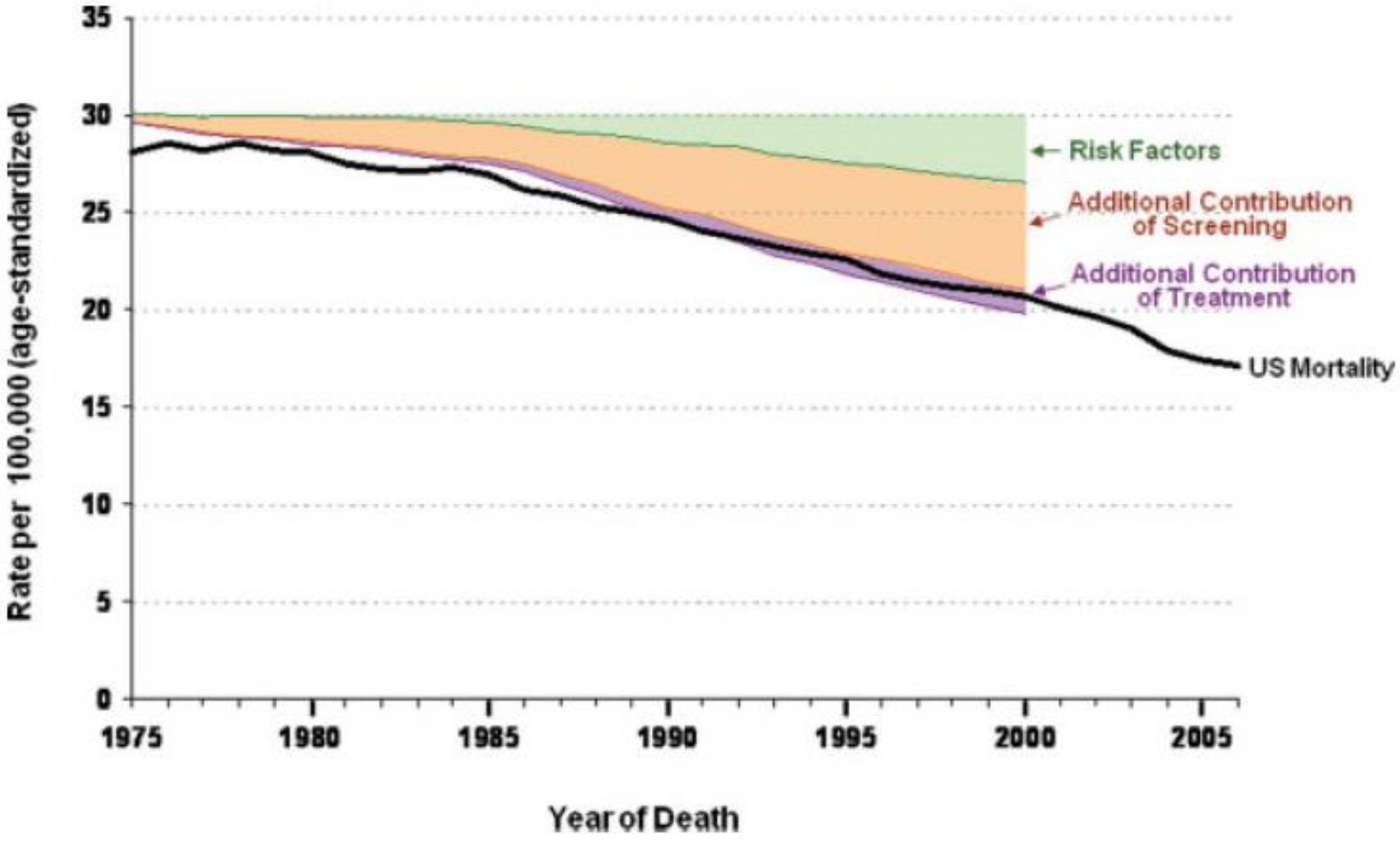
Much of the mortality decline is attributed to SCREENING



Edwards BL et al. Cancer 2010

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Colorectal screening methods

Stool-based

Guaiac-based fecal occult blood test (gFOBT)

Fecal immunochemical test (FIT)

Multitarget Stool DNA Test (MTsDNA)

Improve DISEASE PROGNOSIS by detecting EARLY-stage CANCERS

Endoscopic/Radiologic-based

Flexible sigmoidoscopy (FS)

Optical colonoscopy (Co)

CT Colonography (CTC)

Have potential to **PREVENT cancer** by detecting POLYPS

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New stool and blood-based tests

	Stool Tests			Blood Tests	
Test Name	**Cologuard**	**Cologuard 2.0**	**Colosense**	**Shield**	
Study Name	"Deep-C"	"Blue-C"	"CRC Prevent"	"Eclipse"	"Preempt CRC"
Company	Exact Sciences	Exact Sciences	Geneoscopy	Guardant Health	Freenome
Markers	FIT + DNA	FIT + DNA	FIT + RNA + smoking status	cfDNA (meth;fragment)	Multiomics
Sensitivity:					
CRC; N (%)	**65 (92%)**	**95 (94%)**	**36 (94%)**	**65 (83%)**	**(79%)**
Stage I	29 (90%)	30 (85%)	14 (100%)	17 (65%)	(57%)
Adv Adenomas	**42% (APL)**	**42% (APL)**	**46%**	**13% (APL)**	**12.5%**
HGD	39 (69%)	114 (75%)	46 (65%)	--	29%
SSP > 1 cm	99 (48%)	288 (48%)	--	--	--
Specificity:					
Normal	**87%**	**93%**	**85%**	**90%**	**91.5%**
Source	Imperiale NEJM 2014	Imperiale NEJM 2024	Barnell JAMA 2024	Chung NEJM 2024	Baldo Press release 2024

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4 questions to detect if someone is at INCREASED risk

1. Have you ever had an adenomatous polyp or colorectal cancer?
2. Have any first-degree relatives had colorectal cancer or an advanced polyp?
3. Have you had inflammatory bowel disease (ulcerative colitis or Crohn’s disease)?
4. Have you received abdominal radiation for childhood cancer?

If the answer to all of these are NO, you are considered AVERAGE risk.

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When to start: Guidelines for average risk

Guideline	Year	Age to start
American Cancer Society[1]	2018	45 (Qualified recommendation)
US Preventive Services Task Force {USPSTF}[2]	2021	45
US Multi-Society Task Force of Colorectal Cancer (ACG, AGA, ASGE) {USMSTF}[3]	2022	45 (2017[4]: 45 for African Americans: weak recommendation, very low quality evidence)

[1]Wolf et al. CA Cancer J Clin. 2018; [2]USPSTF JAMA 2021;
[3]Patel et al GIE 2022; [4]Rex et al. Am J Gastroenterol 2017

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Quick note on family history and screening

Family History	Recommendation
Lynch Syndrome	20-25 (or 2-5 years younger than youngest diagnosed if < 25 whichever earlier)
FDR* CRC or advanced adenoma < 60 2 FDRs with CRC or advanced adenoma	40 (or 10 years younger than age when youngest relative diagnosed, whichever earlier)
FDR* CRC or advanced adenoma ≥ 60	40

*FDR: First Degree Relative

Giardiello et al GIE 2014; Rex et al Am J Gastroenterol 2017

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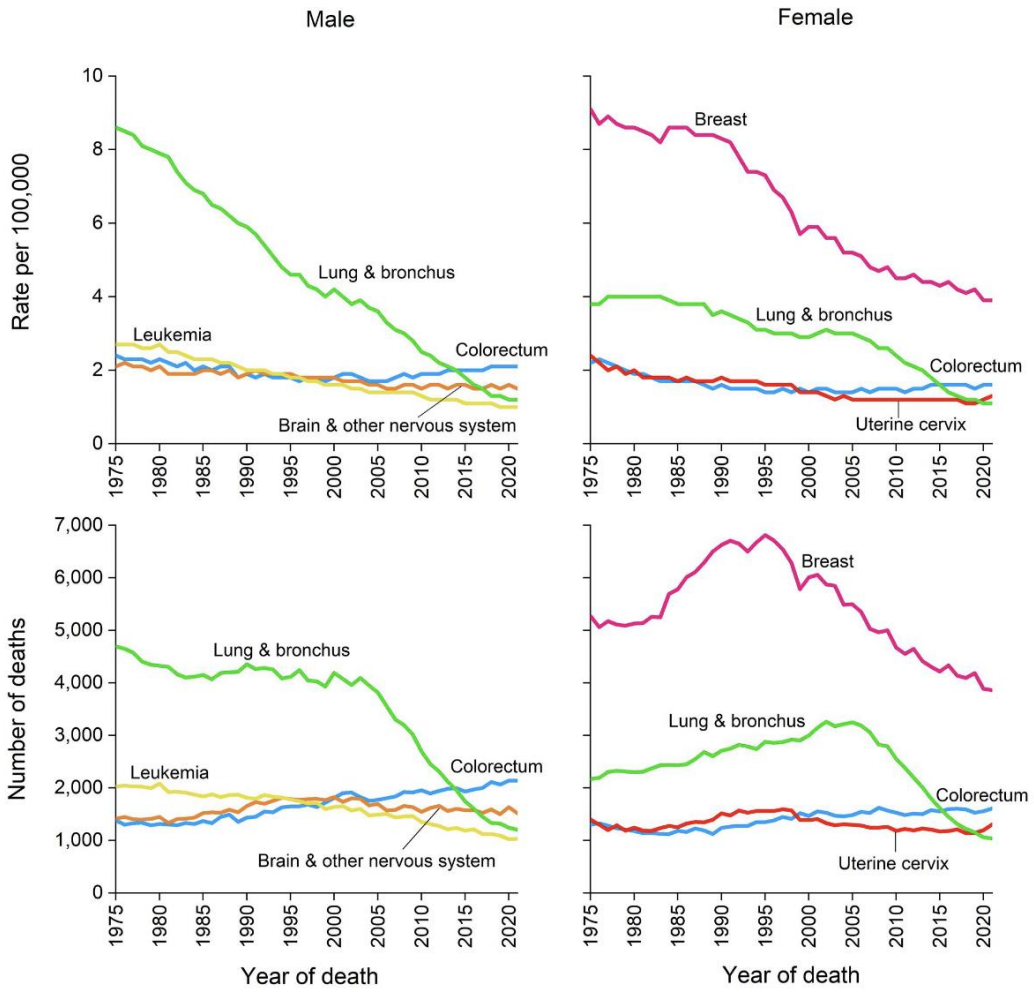
Scary stats for those not screened….



CRC has moved up from being the 4th leading cause of cancer death in both younger men and women 2 decades ago to 1st in men and 2nd in women.

Siegel et al.CA Cancer 2024

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Center for young onset CRC and GI cancers

1. To create a **coordinated clinical program** to cover the special clinical and psychosocial needs of patients with young onset CRC *including through survivorship*

2. To expand our **clinical database and bio specimen repository** (tissue, blood, stool)

3. To build upon our **current research efforts** aimed to understand the genetic and epigenetic factors contributing to the development with young onset CRC

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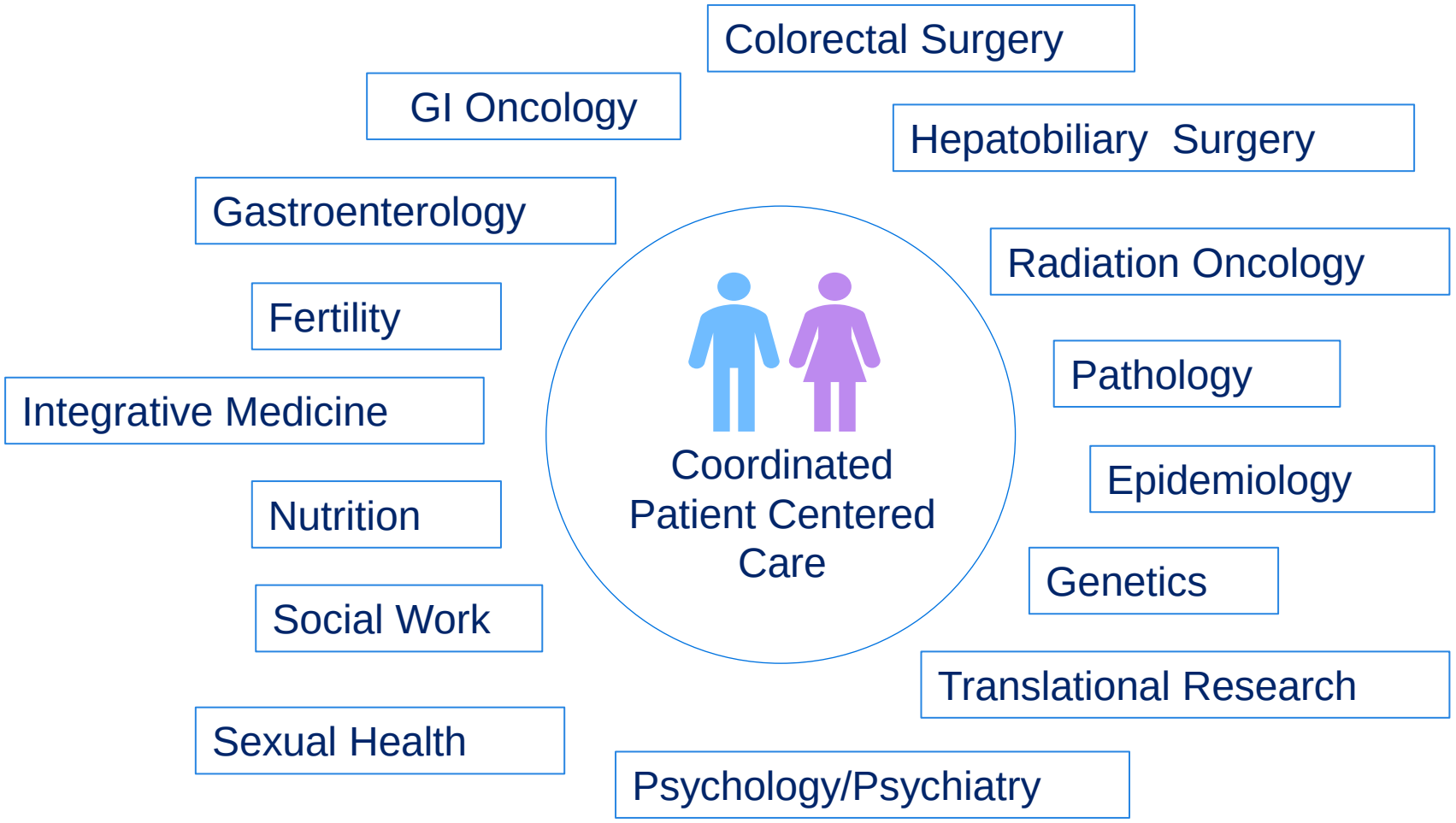
A coordinated clinical program



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Summary and conclusions

CRC screening saves lives

There are multiple screening modalities

- Stool tests for early cancer detection
- Endoscopic/Radiologic for cancer prevention
- Blood tests on the horizon, misunderstood

People should be assessed for risk of CRC

- General population start at 45
- Earlier for family history, IBD, XRT

Currently, insufficient data to recommend general screening < 45

- ↑ awareness of young onset CRC
- Prompt evaluation of symptoms

In the end, we usually say the best screening test is the one that gets done…and done well... and with appropriate follow-up! This will likely change with blood tests. Stay tuned!

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