Population-Level Approaches to Supporting Health Living in the Growing Population of Cancer Survivors

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LIFE AFTER CANCER: SURVIVORSHIP BY THE NUMBERS

The number of cancer survivors in the United States is increasing, and is expected to grow to about 20.3 million by 2026 according to Cancer Treatment & Survivorship Facts & Figures 2016-2017. Even though cancer incidence rates are declining in men and stable in women, the number of cancer survivors is rising due to a growing and aging population, as well as earlier detection and better treatments. As this population continues to increase, it will be more important than ever to address this group's unique needs.

AS OF JANUARY 1, 2016, THERE ARE MORE THAN 15.5 MILLION CANCER SURVIVORS IN THE US. BY 2026, THERE WILL BE ABOUT 20.3 MILLION.

Source: Surveillance, Epidemiology, and End Results Program, National Cancer Institute.
Cancer Survivors are at risk: Chronic & Late Effects of Cancer

- Recurrence/new cancers
- CVD
- Endocrine dysregulation
- Obesity
- Diabetes
- Osteoporosis
- Functional limitations
- Disability
- Neuropathy
- Pain
- Lymphedema
- Sexual Impairment
- Incontinence
- Poor Quality of Life
- Fatigue
- Depression, Anxiety
- Uncertainty
- Relationship changes
- Poor body image
- Job & Insurance problems
- Financial burden
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% with Limitations: Survivors vs. General Population

Mean age of 26.6 years (18-48 years)

By 30 years post cancer:
- 73% survivors with at least one chronic health condition
- 42% with a Grade 3-5 (severe, life-threatening, death)
- 39% had ≥2 chronic health conditions

Survivors – 8.2 times more likely to have a severe or life threatening condition compared to siblings
Many survivors will die of competing causes, NOT cancer...

- Older breast cancer survivors: more likely to die of cardiovascular disease than breast cancer
  (Patnaik, *Breast Cancer Research* 2011, 13(3):R64)

- Prostate cancer survivors -- 15-year mortality
  - 5.3% from prostate cancer
  - 30.6% from non-prostate cancer

- Young Testicular CA survivors: 1.7 x more likely to die of circulatory disease than general population
  (Fossa, JNCI 2007 April 4; 99(7), 533-44)
Focus Care on Creating Healthy Survivors

✓ Treat the tumor
  • Prevent toxicities, late effects
    …or treat them early
Exercise & Nutrition

- Reduce ongoing symptoms like fatigue
- Improve mood, decrease distress
- Improve physical functioning and QOL
  - Prevent spiral into disability
- Control weight
- Decrease risk of comorbidities like cardiovascular disease, osteoporosis & diabetes
  ...and may prevent 1/3 of cancer deaths
Health Behaviors of Cancer Survivors
(N=45,541; BRFSS data)

Sedentary: 31.5%
Health Behaviors of Cancer Survivors
(N=45,541; BRFSS data)

Obese: 27.5%
Cancer Survivors Want to Make Healthy Changes

Do Survivors Talk with their Physicians about Health Behaviors?  
(NHIS data)

<table>
<thead>
<tr>
<th>Health Behavior</th>
<th>Cancer Survivors</th>
<th>Adults without Cancer</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet Discussion</td>
<td>30%</td>
<td>23%</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Exercise Recommendation</td>
<td>26%</td>
<td>23%</td>
<td>&lt;.005</td>
</tr>
<tr>
<td>Smoking Assessment</td>
<td>42%</td>
<td>41%</td>
<td>.41</td>
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Sabatino et al., 2007, Journal of Clinical Oncology
Problems

Solutions
Working on Solutions

2012 National Cancer Policy Forum workshop

2013 National Cancer Policy Forum workshop

Purpose:
• Review science
• Suggest solutions
Working on Solutions

One size does NOT fit all

2012 National Cancer Policy Forum workshop
Need A Personalized Approach

- Cancer Rehab
  - Comprehensive Assessment (physical, psychosocial, exercise+diet hx)
  - Self-guided program
  - Supervised program
  - Community program
Population-level Approaches in the US

1. Clinical Care Guidelines
Clinical Care Follow-up Guidelines

- **Colorectal Cancer** – *CA Cancer J Clin* on September 8, 2015. (bit.ly/acscolorc)
- **Breast Cancer** – Collaboratively developed and released with ASCO. *CA Cancer J Clin* and *JCO* on December 7, 2015. (bit.ly/BrCaCare)

Describes comprehensive, patient-centered care

- Screening, surveillance for new/recurrent cancers
- Assessment & Management of physical and psychosocial late & long-term effects
- Prevention and health promotion
- Coordination among specialists and PCPs
New Global Effort for 2017

Guidelines on Exercise and Nutrition

Nutrition and Physical Activity Guidelines for Cancer Survivors
Cheryl L. Rock, PhD, RD; Colleen Doyle, MS, RD; Wendy Demark-Wahnefried, PhD, RD; Jeffrey Meyerhardt, MD, MPH;
Kerry S. Courneya, PhD; Anna L. Schwartz, FNP, PhD, FAAN; Elisa V. Bandera, MD, PhD;
Kathryn K. Hamilton, MA, RD, CSO, CDN; Barbara Grant, MS, RD, CSO, LD;
Marj McClure, ScD, RD; Tim Byers, MD, MPH; Ted Gansler, MD, MBA, MPH

Cancer survivors are often highly motivated to seek information about food choices, physical activity, improve their treatment outcomes, quality of life, and overall survival. To address these concerns, the ACS convened a group of experts in nutrition, physical activity, and cancer survivorship to evaluate best clinical practices related to optimal nutrition and physical activity after the diagnosis of cancer. Findings and results are presented to health care providers with the best possible information with which to advise their patients on the role of nutrition and physical activity in the context of treatment, disease recovery, and survivorship.

American College of Sports Medicine Roundtable on Exercise Guidelines for Cancer Survivors

EXPERT PANEL
Kathryn H. Schmitz, PhD, FACSM
Kerry S. Courneya, PhD
Charles Matthews, PhD, FACSM
Wendy Demark-Wahnefried, PhD
Daniel A. Gaglio, PhD
Bernadine M. Protto, PhD
Melinda L. Irwin, PhD, FACSM
Kathleen Y. Wolin, ScD, FACSM
Routie J. Segal, MD, FACP
Alejandra Lucia, MD, PhD
Carole M. Schneider, PhD, FACSM
Vivian E. von Gruningen, MD
Anna L. Schwartz, PhD, FAAN

In 2009, the American Cancer Society (ACS) estimated that there were nearly 1.5 million new cases of cancer diagnosed in the United States and just more than 500,000 people who died from the disease (76). Currently, there are close to 12 million cancer survivors in the United States, and this number grows each year (66,70,122). Improved prognosis on the basis of earlier detection and newer...
Population-level Approaches in the US

1. Clinical Care Guidelines

2. Materials & Tools for Survivors
   - ACS Materials
   - ASCO Guide
   - NCI/ACS Springboard Beyond Cancer
   [https://Smokefree.gov/springboard/]
Population-level Approaches in the US

1. Clinical Care Guidelines
3. Improve access to effective interventions
   - Cancer rehabilitation
   - Supervised programs
   - Community-based programs
     • LIVESTRONG at the Y & the Diabetes Prevention Program
     • Gym-based programs
Population-level Approaches in the US

1. Clinical Care Guidelines
3. Improve access to effective interventions
4. Train providers
   - ASCO toolkit, position statement
   - Core competencies for MDs
   - Select Medical/ACS International Cancer Rehabilitation Summit
   - ACSM Cancer Exercise Trainer certification
   - APTA Cancer Certification
Population-level Approaches in the US

1. Clinical Care Guidelines
3. Improve access to effective interventions
4. Train providers
5. Implement comprehensive assessment of patient needs through and beyond treatment
   - Improved patient-provider communication
   - Refer to the right intervention
   - Currently fielding crowd-sourcing consensus project
Working on Solutions

2012 National Cancer Policy Forum workshop

2013 National Cancer Policy Forum workshop

2015 ACS CAN, Academy of Nutrition & Dietetics, International Health, Racquet, & Sportsclub Association Policy Meeting
“Cancer survivors face challenges in adopting healthy lifestyle behaviors – personal, family, healthcare system, community/public health levels”

- Need policy solutions that remove financial, informational, environmental, and other barriers to healthy lifestyles

- Stakeholders must work together
Working on Solutions

2012 National Cancer Policy Forum workshop

2013 National Cancer Policy Forum workshop

2015 ACS CAN, Academy of Nutrition & Dietetics, International Health, Racquet, & Sportsclub Association Policy Meeting

2016 ASCO convened clinical groups involved in diet/exercise/weight efforts to identify potential collaborations
• Harmonizing clinical guidelines
• Collaborating on provider education/training initiatives
• Collaborating on public education and patient activation campaigns
• Collaborating on research efforts
• Collaborating on a policy agenda including coverage and reimbursement
Population-level Approaches in the US

1. Clinical Care Guidelines
3. Improve access to effective interventions
4. Train providers
5. Implement comprehensive assessment of patient needs through and beyond treatment

6. Research Agenda to Inform Change
NCI Funding Trends and Priorities in Physical Activity and Energy Balance Research Among Cancer Survivors

Catherine M. Alfano*, Shirley M. Bluethmann, Gina Tesauro, Frank Perna, Tanya Agurs-Collins, Joanne W. Elena, Sharon A. Ross, Mary O’Connell, Heather R. Bowles, Deborah Greenberg, Linda Nebeling

Affiliations of authors: Behavioral Research Branch, NCI, SIOP-CT, FDA, NCI, RNA, and Epidemiology and Cancer Research Branch, SWPB, Division of...
Research Agenda

- Survivor level: create interventions that are feasible for diverse survivors with outcomes meaningful to them
- Clinician-level:
  - A) determine underlying biology of how health behavior interventions improve health and well-being = which survivors to refer for which interventions
  - B) need effective programs in a variety of settings - test models of referral and feedback to clinicians
- Healthcare payer level: collect the data needed to make the case for reimbursement
Working on Solutions: Next Steps

- 2017 NCPF workshop Feb 13-14
New US National Initiative

The Survivorship Roundtable:
• Bring together organizations with a stake in the care of cancer survivors

• Mission: To meet the physical, functional, and psychosocial needs of people living through and beyond cancer and optimize functioning and well-being through enhancing the delivery of services from diagnosis through post-treatment survivorship in clinical, community, and worksite settings in the US

• Tackle agendas that no single organization can do alone
THANK YOU!

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