Psychological Issues that Cancer Patients Face:

Moving Forward

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National Cancer Policy Forum
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THE OHIO STATE UNIVERSITY

Focus of the Discussion

- ~~Physical functioning~~
- ~~Symptoms (fatigue, sleep, cognitive functioning)~~
- ~~Health behaviors~~
- ~~Sexuality~~
- ~~Compliance/adherence~~
- Stress
- Anxiety and Depressive symptoms and disorders

Agenda

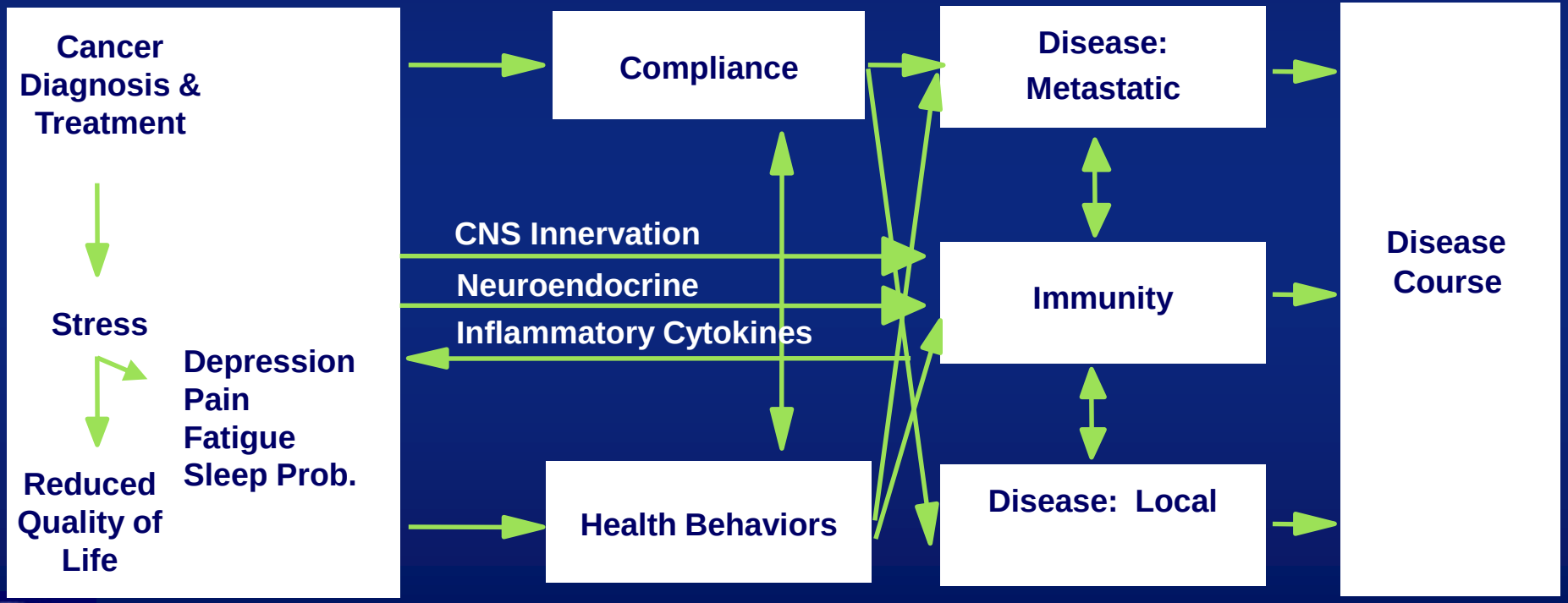
- Rationale and description
- Psychological treatments
- Moving forward

Why Stress, Depression, and Anxiety?

- Common
- There are known, obvious risk factors
- Impact other emotions, behaviors, biology, and disease endpoints
- Deadly

- They are defined with diagnostic criteria.
- There are validated measures.
- There are currently available, empirically supported psychological and cancer specific interventions.

Biobehavioral Model of Cancer Stress and Disease Outcomes



Co-morbid Psychopathology

- 15-20% with a current depressive disorder (base rate = 6%)
- 11% with a current anxiety disorder (GAD, PTSD, Panic) (= base rate)

- 50% Chronic (recurrent) condition
- 50% with Depression + Anxiety
- Undetected, untreated, and thus, a worsened trajectory
- If detected, under treated

Depression, Anxiety Comorbidity in Cancer Patients

Disorder	Point Prevalence	General Population
Major Depression	12.7%	1.4-8.0%
Dysthymia	2.8%	0.5-2.6%
Sub syndromal	10.8%	1.5-5.9%
Generalized Anxiety Disorder	3.5%	0.2-7.6%
PTSD	4%	0.3-2.7%
Panic Disorder	2.5%	0.3-6.6%
Adjust. Disorder	14.3%	0.3%

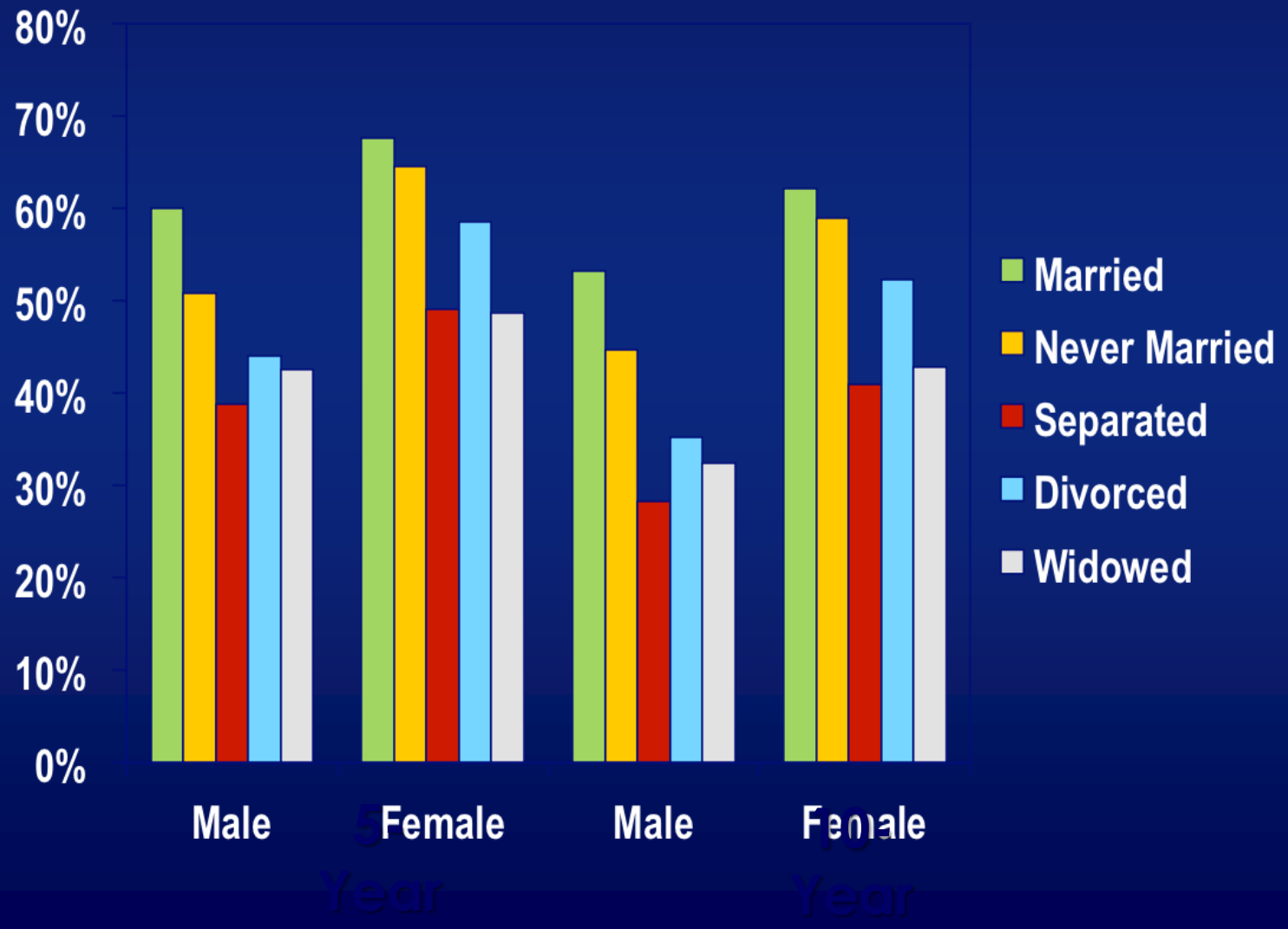
Psychological/behavioral difficulties: Who is at risk? Those with…

History of Depression or Anx. Disorders, =/- sub.use.

And those:

- Male
- Aged
- Alone (actually or functionally)
- Unemployed / low SES
- Receiving the most toxic therapies
- Recurrence/Progressive disease

Example: Cancer Survival: Gender (male), marital status (alone)

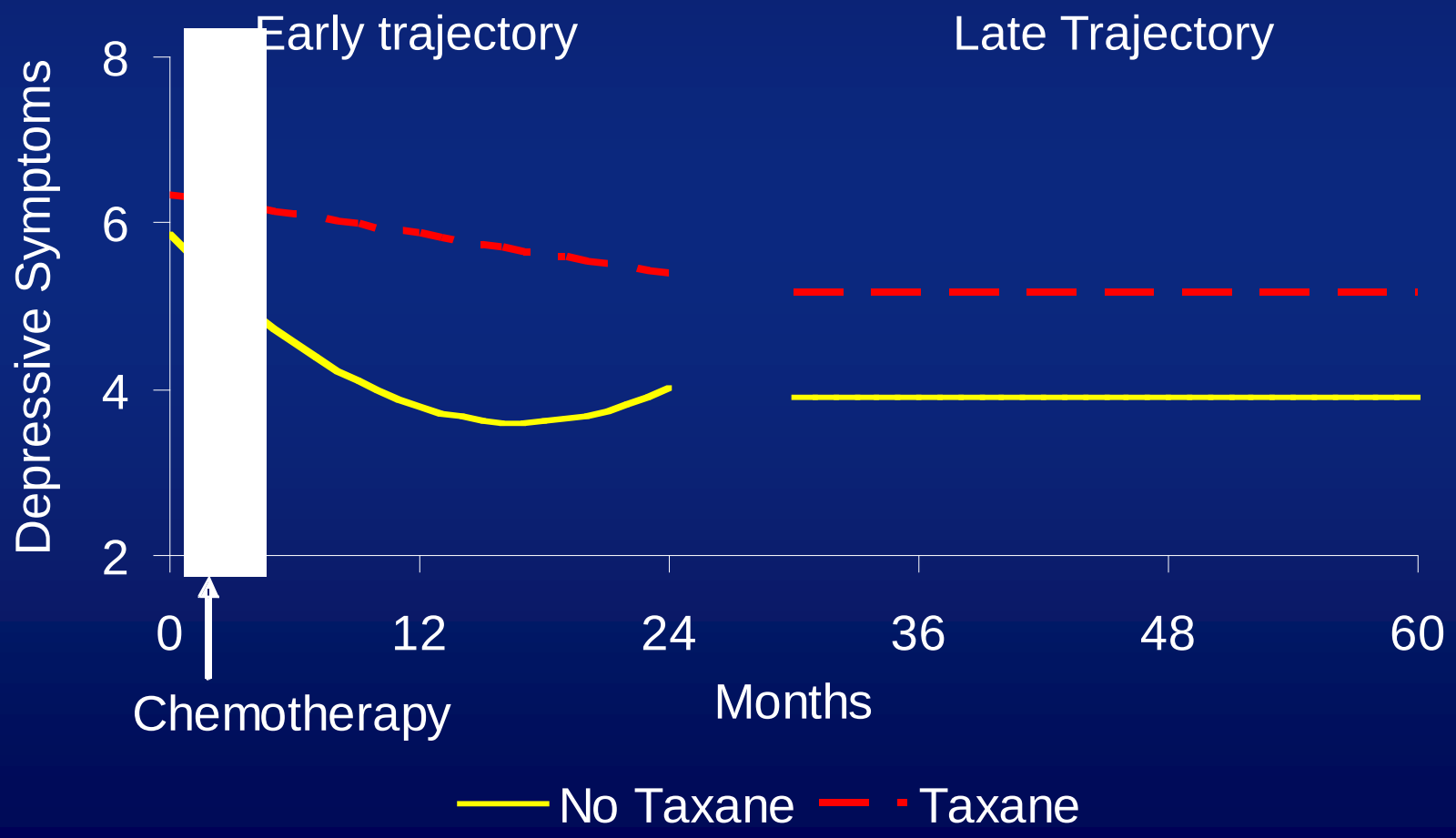


Depression risk: Cancer Therapies

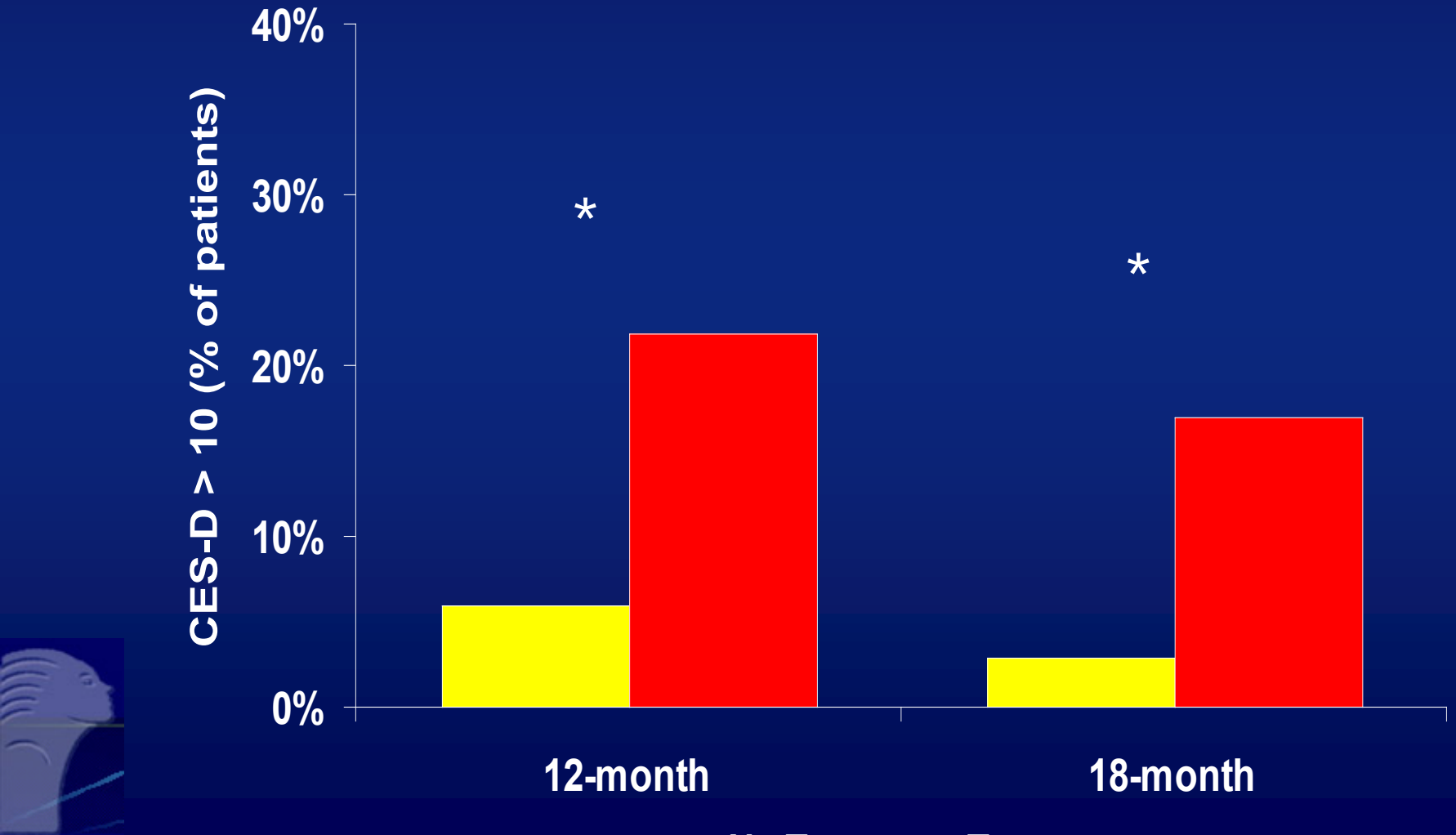
- Taxanes improved breast cancer outcomes when used as adjuvant treatment.
- Clinical trials showed neurotoxicity, pain, and peripheral neuropathy.

Thornton et al., Cancer, 2008

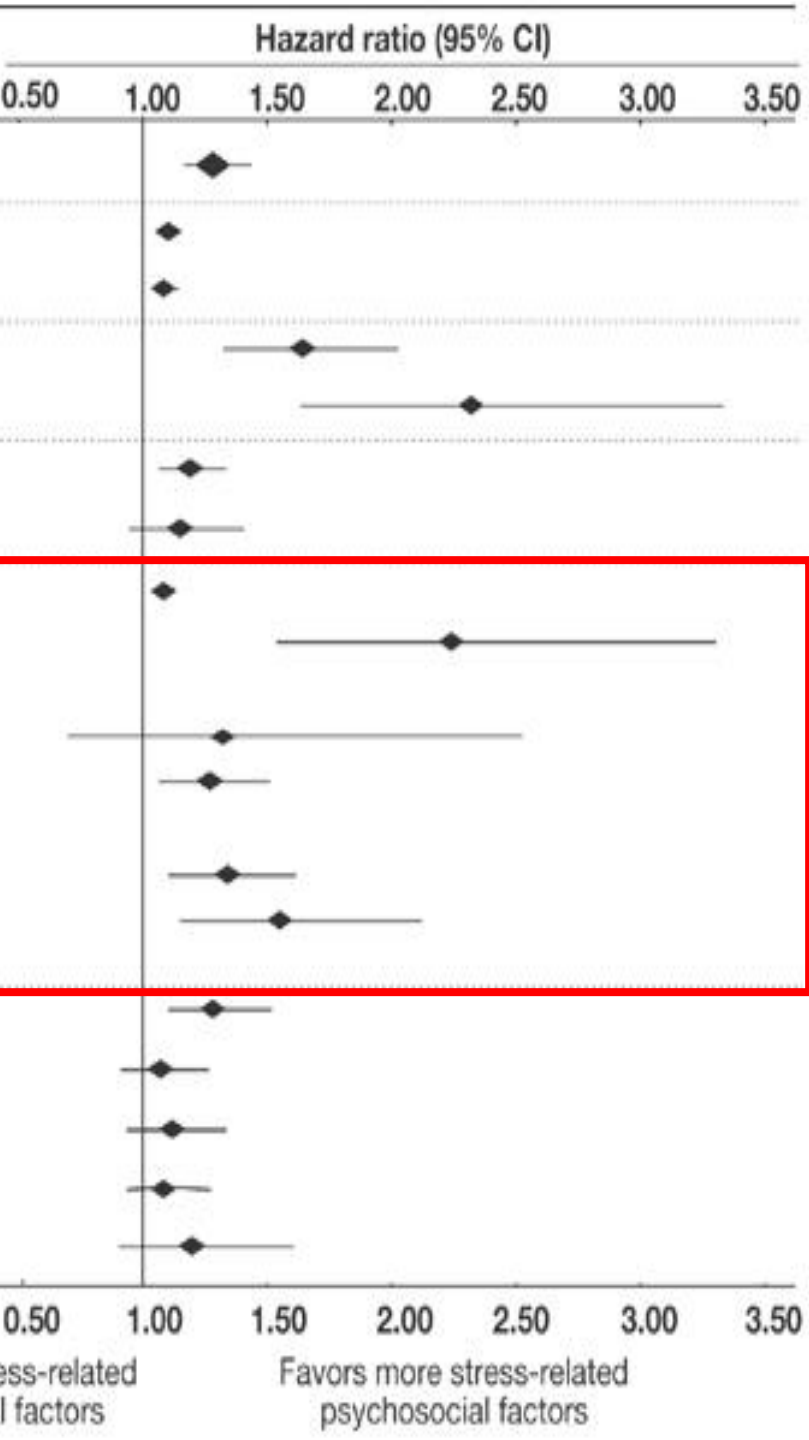
Significant Depressive Symptoms for the Taxane Group



Group Differences in Depression (18-22%) 12 and 18 months



Type of analysis	No. of studies (%)	Combined effect size HR (95% CI)	*P* value	*P* value for heterogeneity
Overall analysis[a]	50 (100)	**1.29 (1.16–1.44)**	**< 0.001**	< 0.001
Sample size ≥3,000	27 (54)	**1.10 (1.10–1.14)**	**< 0.001**	0.53
Sample size ≥30,000	16 (32)	**1.09 (1.05–1.14)**	**< 0.001**	0.49
Follow-up ≥5years	34 (68)	**1.64 (1.33–2.02)**	**< 0.001**	< 0.001
Follow-up ≥10years[a]	19 (38)	**2.33 (1.63–3.33)**	**< 0.001**	< 0.001
Study quality score ≥3	30 (60)	**1.19 (1.07–1.33)**	**0.002**	< 0.001
Fully controlled covariates	20 (40)	1.15 (0.95–1.40)	0.16	< 0.001
Life-stress exposure	19 (38)	**1.09 (1.05–1.13)**	**< 0.001**	0.39
Stress-prone personality or poor coping style	17 (34)	**2.25 (1.54–3.30)**	**< 0.001**	< 0.001
Poor social support[a]	3 (6)	1.33 (0.70–2.53)	0.39	0.027
Unfavorable emotional responses	11 (22)	**1.27 (1.07–1.51)**	**0.008**	0.097
Depression	8 (16)	**1.34 (1.11–1.61)**	**0.002**	0.35
Other emotional distress or poor QOL	3 (6)	**1.56 (1.15–2.12)**	**0.004**	0.66
Any cancer	34 (66)	**1.29 (1.11–1.52)**	**0.001**	< 0.001
Breast cancer	3 (6)	1.07 (0.91–1.27)	0.42	0.38
Lung cancer	5 (10)	1.12 (0.94–1.34)	0.20	< 0.001
Stomach cancer	2 (4)	1.09 (0.93–1.27)	0.28	0.64
Colorectal cancer	4 (8)	1.20 (0.90–1.60)	0.22	0.44



Depression and suicide
Who is at risk? Those with…

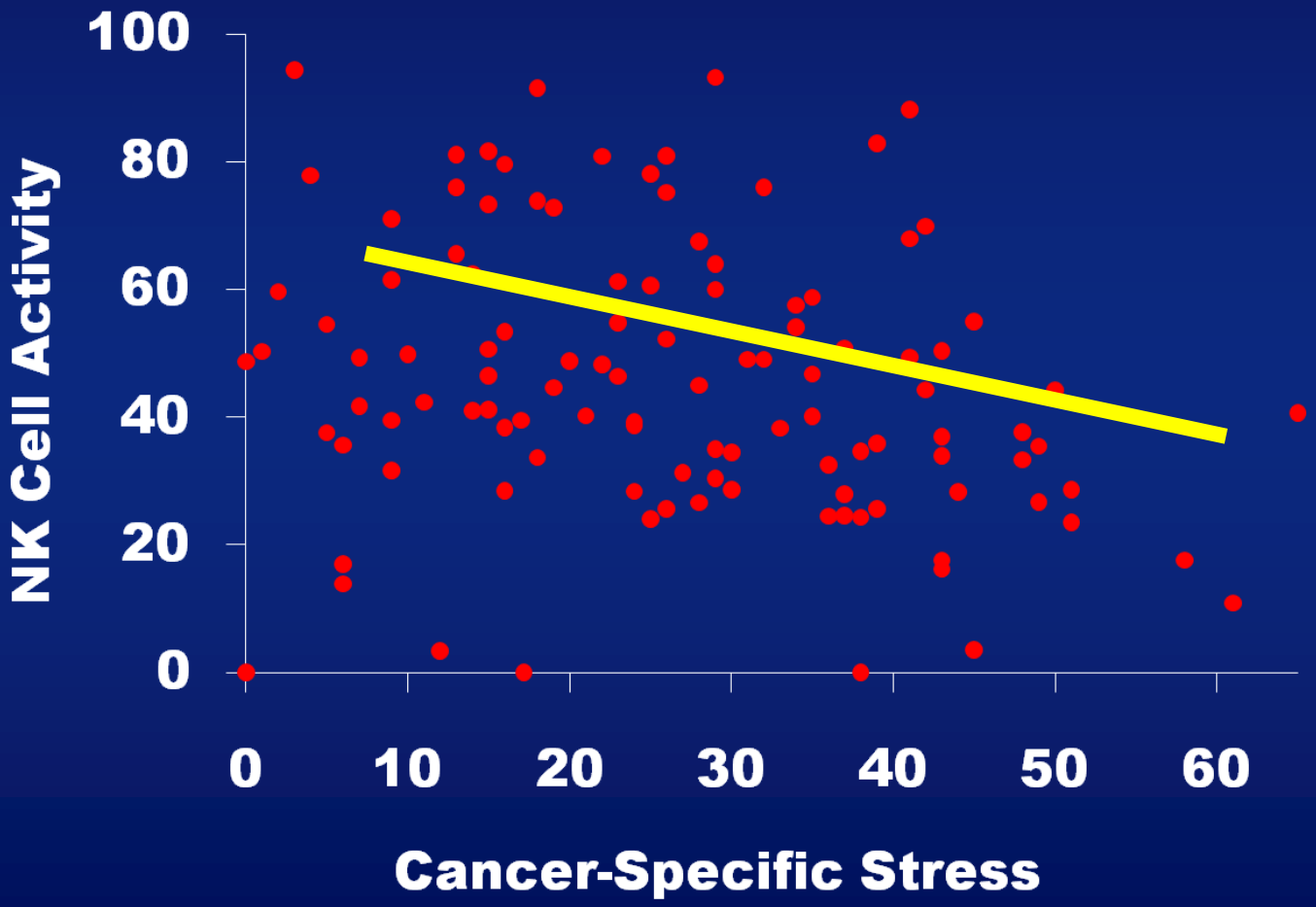
Cancer (e.g., 27.7 vs. 16.7/100,000 in 54-59 yr.)

Time since diagnosis (< 5 yrs., 2.38 vs. 1.43-1.58)

And those:

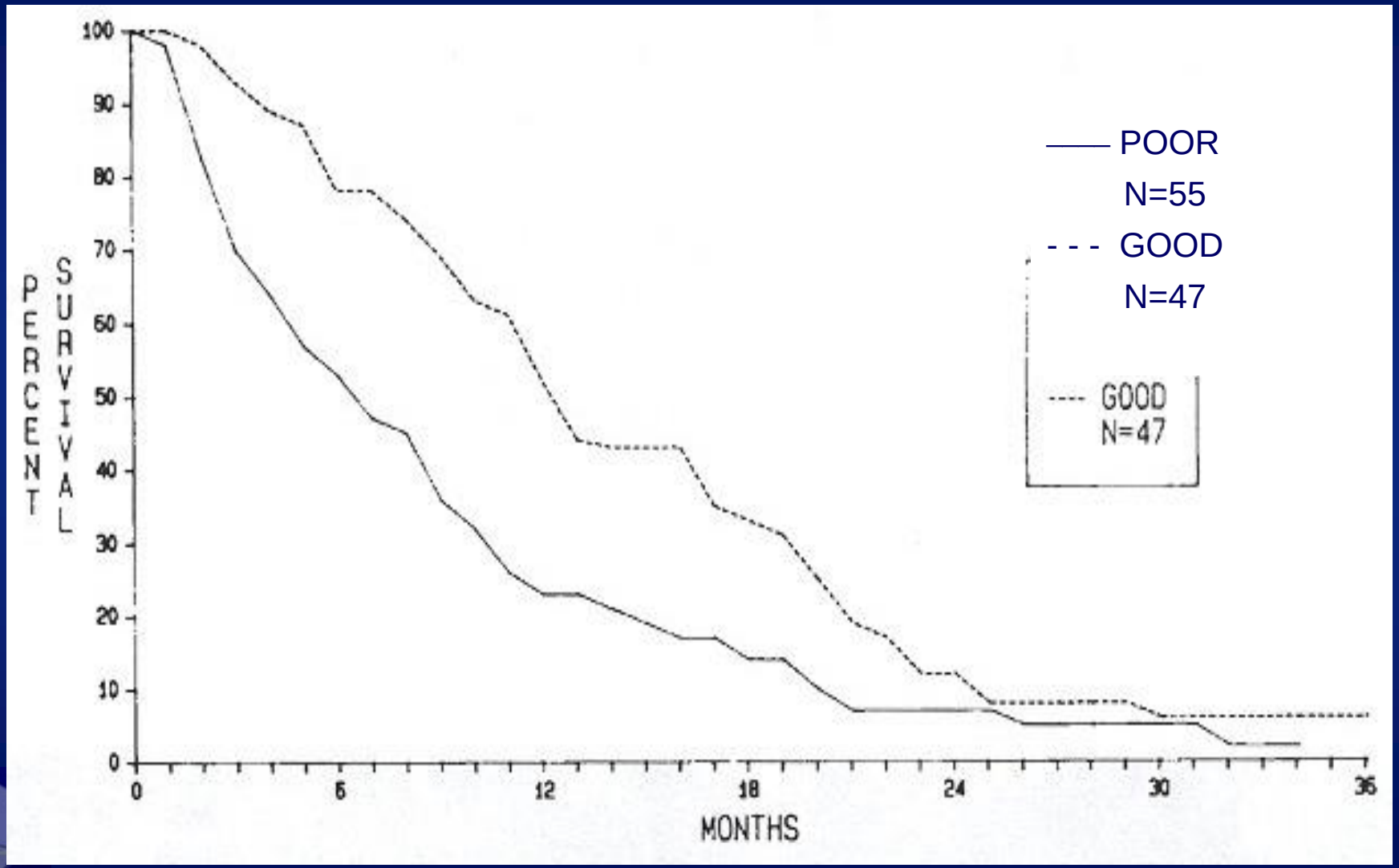
- **Male** (2.09 vs. 1.48 SMR)
- **Aged** [44.6 (50), 57.4 (60), 76.2 (70), etc.]
- **Alone** (37.1 vs 31.5)
- **Distant/Progressive disease** (65.3 vs. 25.1 - 36.1)
- **Disease sites** [Lung, 5.74, stomach (4.68), oral (3.66)]

Significantly Lower NK cell Lysis with Higher Stress (Stg. II/III Breast, N=116)



(JNCI, 1998)

Psychosocial well-being and Survival lung cancer



(Kaasa, 1989)

Social Functioning and Survival
Stomach Cancer

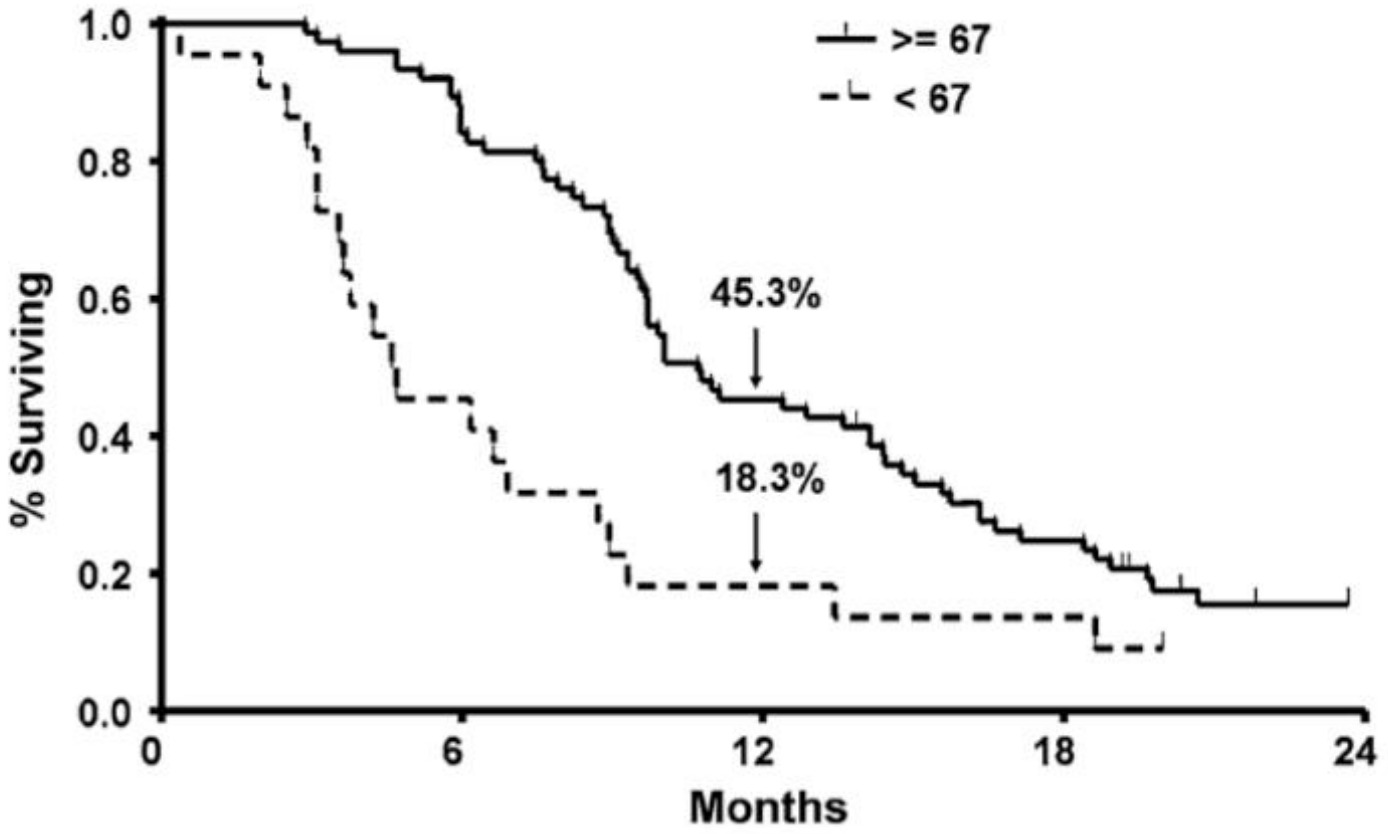
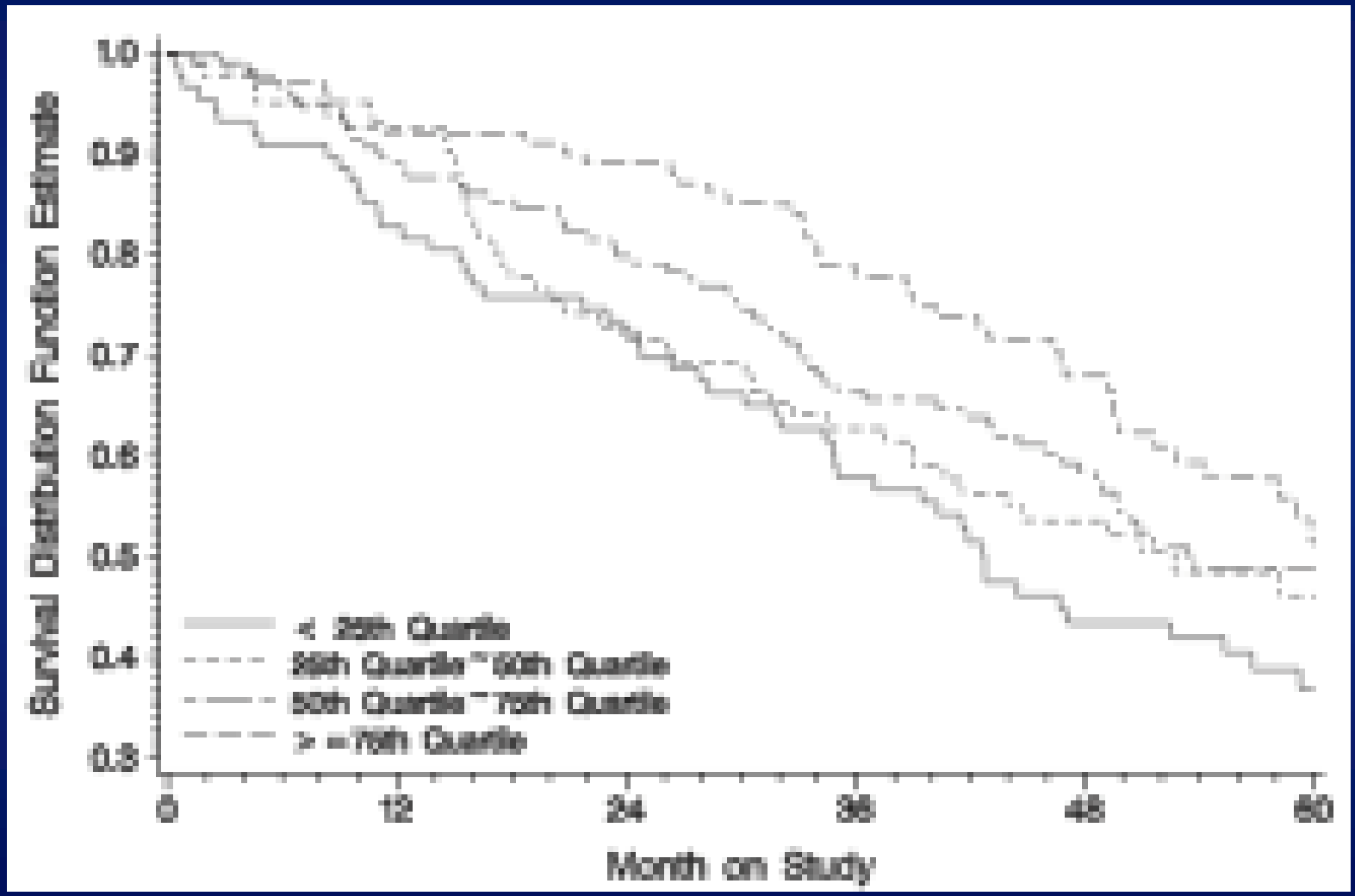


Fig. 1 Survival curves for the baseline social functioning scores. The cutoff value was 67

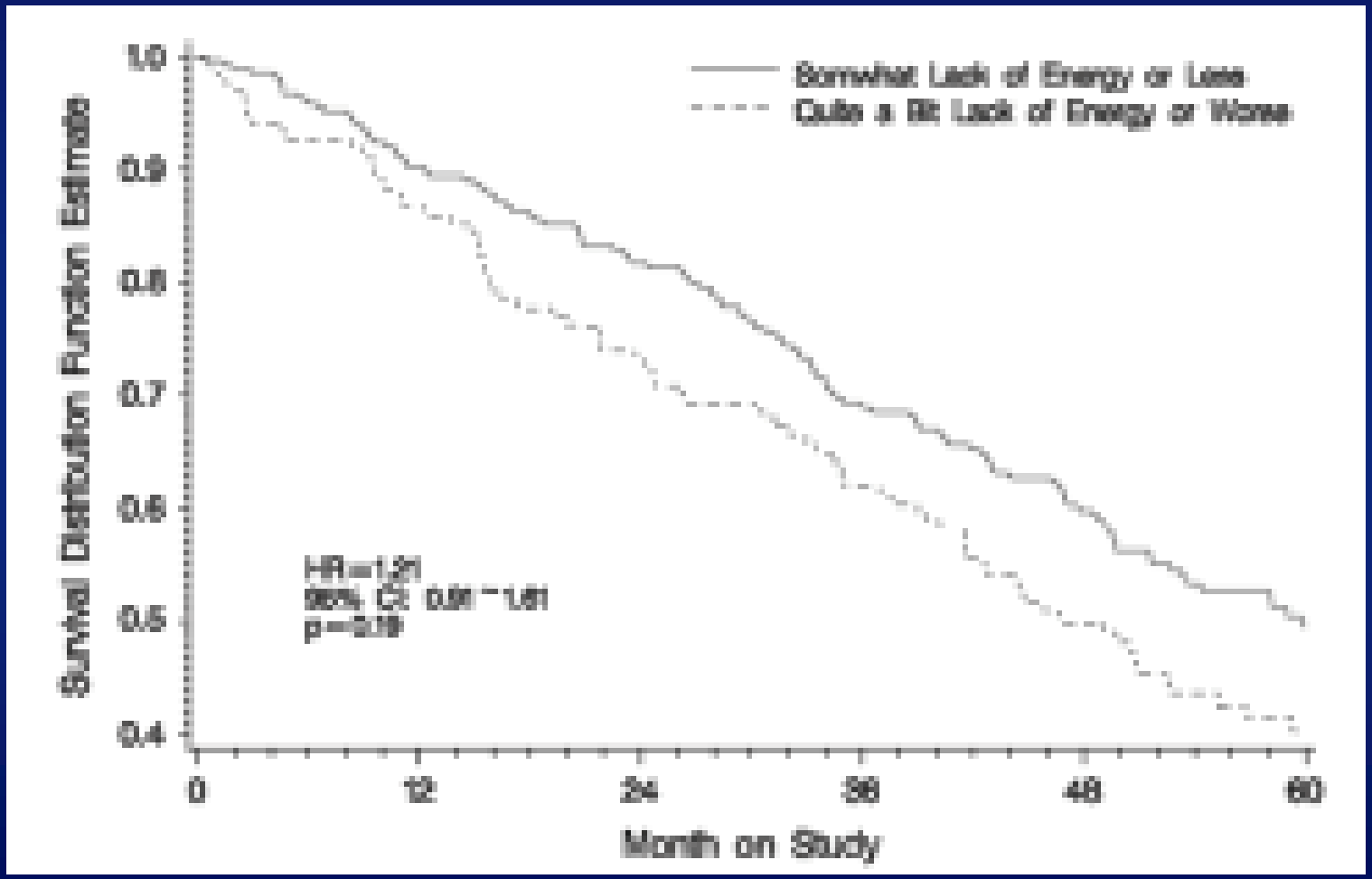
(Park et al., 2008)

Physical QoL and Survival
Gynecologic Cancer



(Von Geunigan et al., 2012)

“Lack of energy” and Survival
Gynecologic Cancer



(Von Geunigan et al., 2012)

QoL and Survival
Lung Cancer

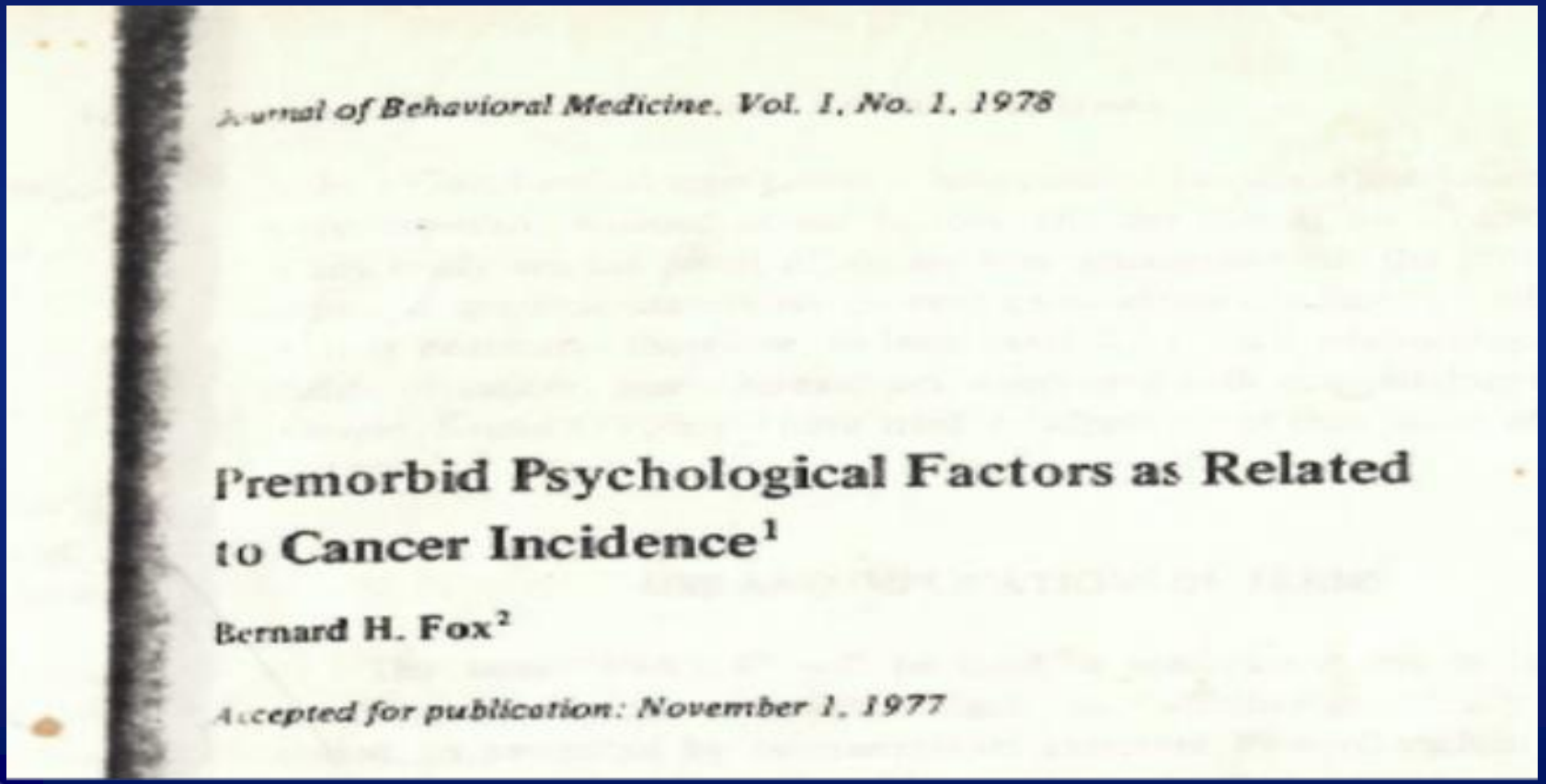
TABLE 2. Demographic Characteristics of the Sample

Age*	61.7 yr (mean) (range, 39.9–87.2 yr)
Gender	
Male	35 (87.5%)
Female	5 (12.5%)
Marital status	
Married	18 (45%)
Unmarried	22 (55%)
Race	
White	25 (62.5%)
Black	12 (30%)
Other	3 (7.5%)
Education†	
High school graduate	26 (72.2%)
Partial college	4 (11.1%)
College graduate	3 (8.3%)
Postgraduate	3 (8.3%)

* Data missing from one subject.
† Data missing from four subjects.

Interventions

A bit of history…
Bernard H. Fox (1978)



Journal of Behavioral Medicine, Vol. 1, No. 1, 1978

Premorbid Psychological Factors as Related to Cancer Incidence[1]

Bernard H. Fox[2]

Accepted for publication: November 1, 1977

1992 Summary of outcomes from psychological trials (N=19)

Risk Group	Outcome		
	Mood/Emotional Adjustment	Social and Behavioral	Medical or Health
Low	Modest improvements in emotional distress; More adaptive coping strategies.	Modest gains in social adjustments.	Immune enhancement and improved survival (Fawzy et al., 1990; 1993).
Moderate	Significant reductions in emotional distress.	Modest gains in social adjustment.	Symptom (fatigue, anorexia) reduction (Forester, Kornfeld, & Fleiss, 1985).
High	Significant reductions in emotional distress.	Improvements in global evaluations of quality of life (e.g. life satisfaction).	Symptom improvments (e.g. reductions in pain) and improved survival (Spiegel et al., 1989).

(JCCP, 1992)

Effective Components of Psychological Interventions

- Stress reduction, typically relaxation training
- Information about the disease and treatment
- Behavioral and cognitive coping strategies e.g., problem solving, assertive communication
- Social support
- Focused interventions for disease-specific problems (e.g. sun protection for melanoma survivors; sexuality for gynecologic survivors)

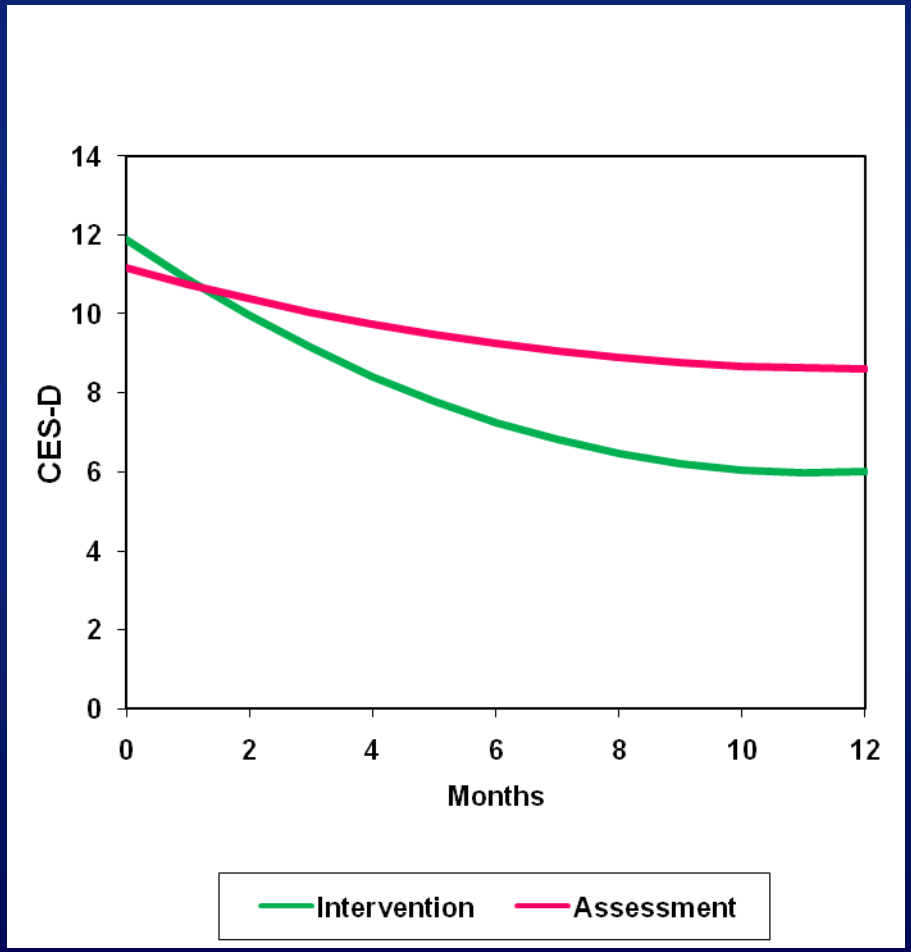
(JCCP, 1992)

Efficacy of Psychological Interventions

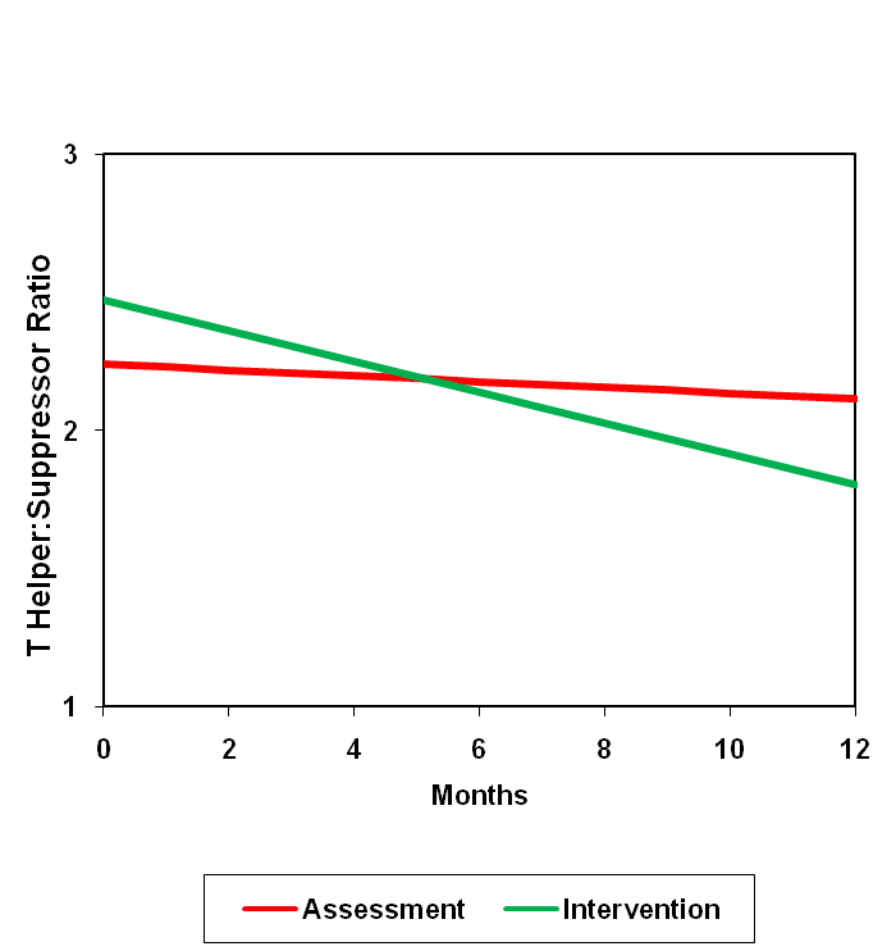
Meta-Analyses (N=300+)

Intervention	k	Anxiety	Depression	QoL
Unspecified group intervention/varied	7	0.40-0.56	0.47-1.01	0.65-0.90
CBT	4	0.35-1.67	0.87-1.21	---
MBSR	3	0.73-0.75	0.58-0.90	---
Psychoeducation	3	1.59-1.99	0.94	0.91
Relaxation	2	0.21-0.45	0.30-0.54	---

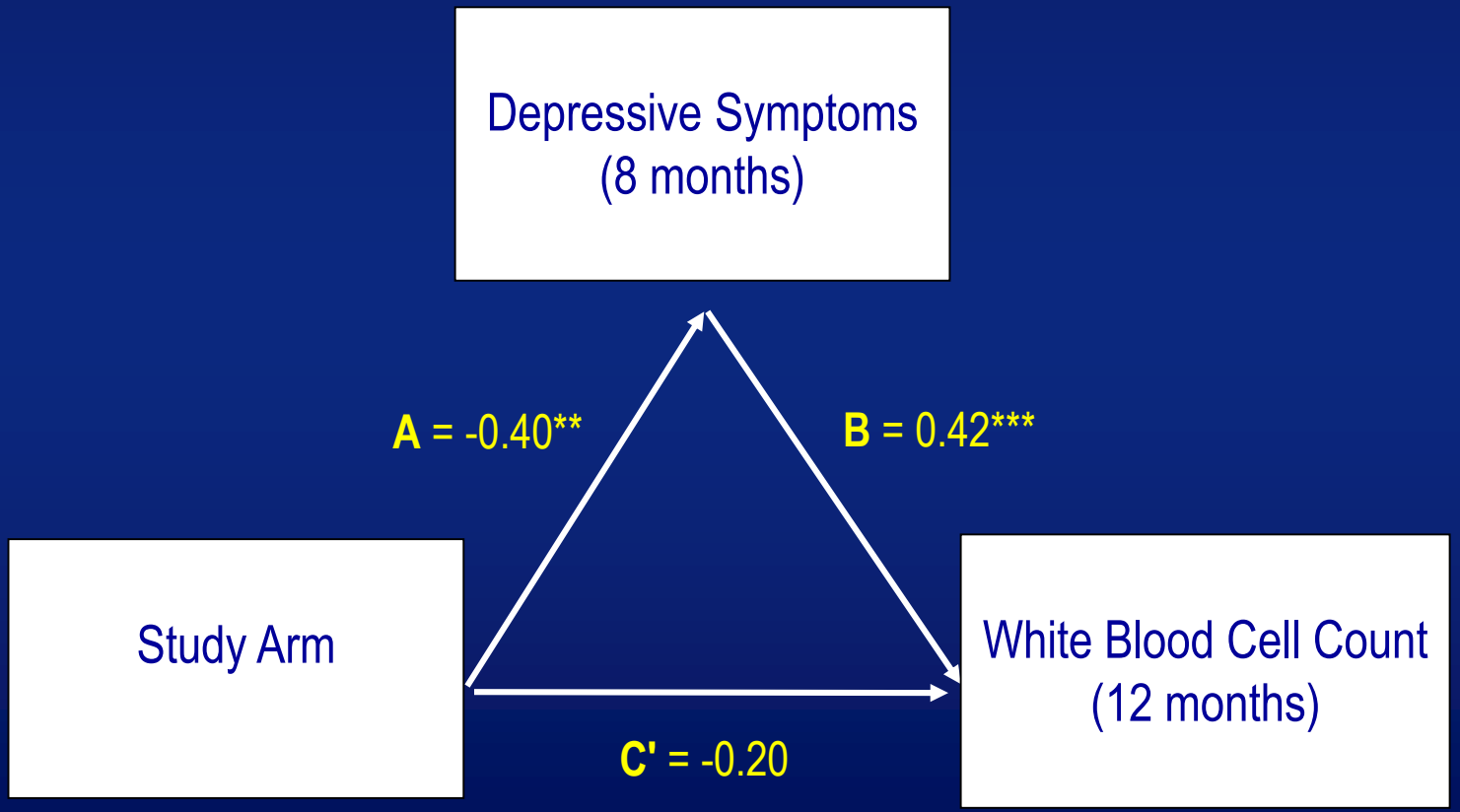
Reduction in Depression with Intervention



Reduction in Inflamation Marker
T Helper : Suppressor Ratio

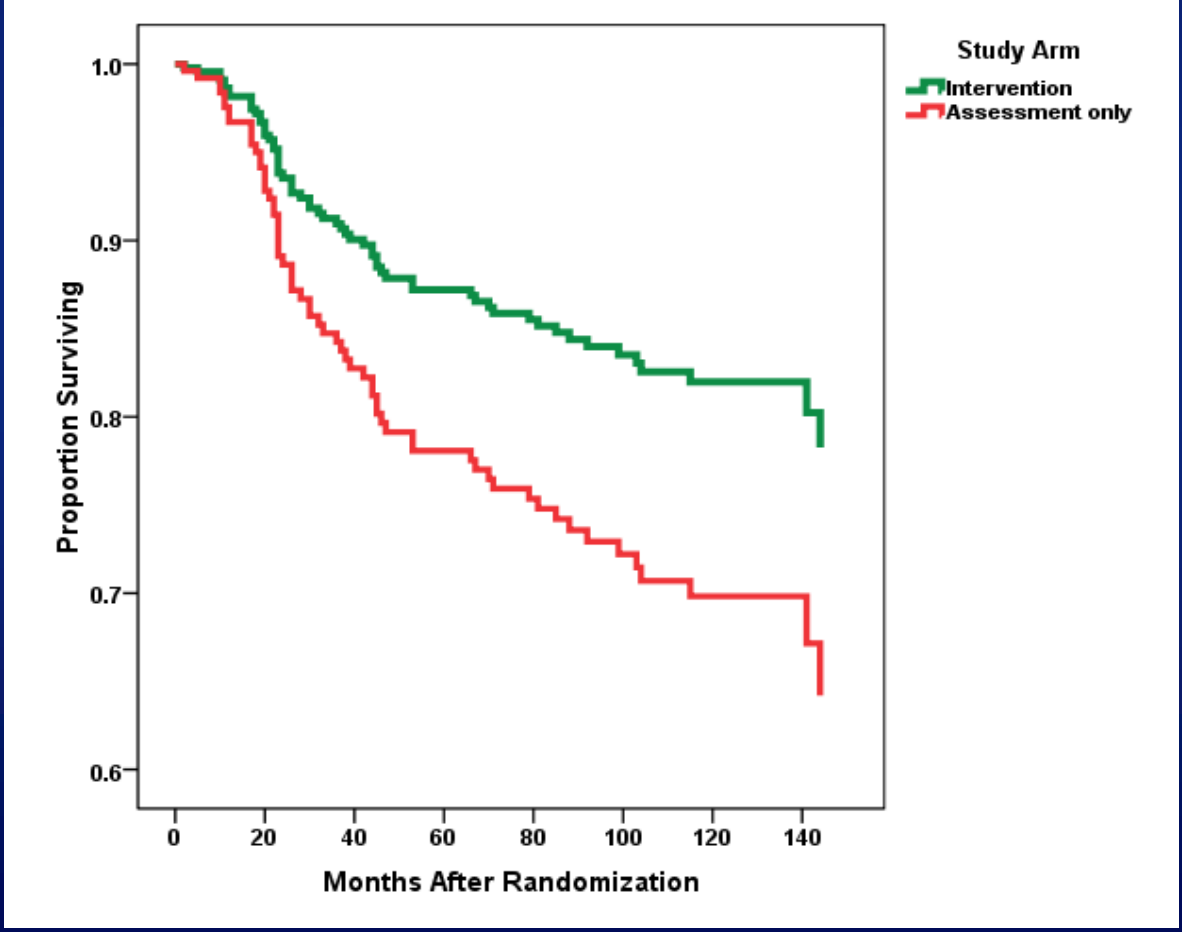


Intervention lowers inflammation: mediated by reduction in depressive symptoms

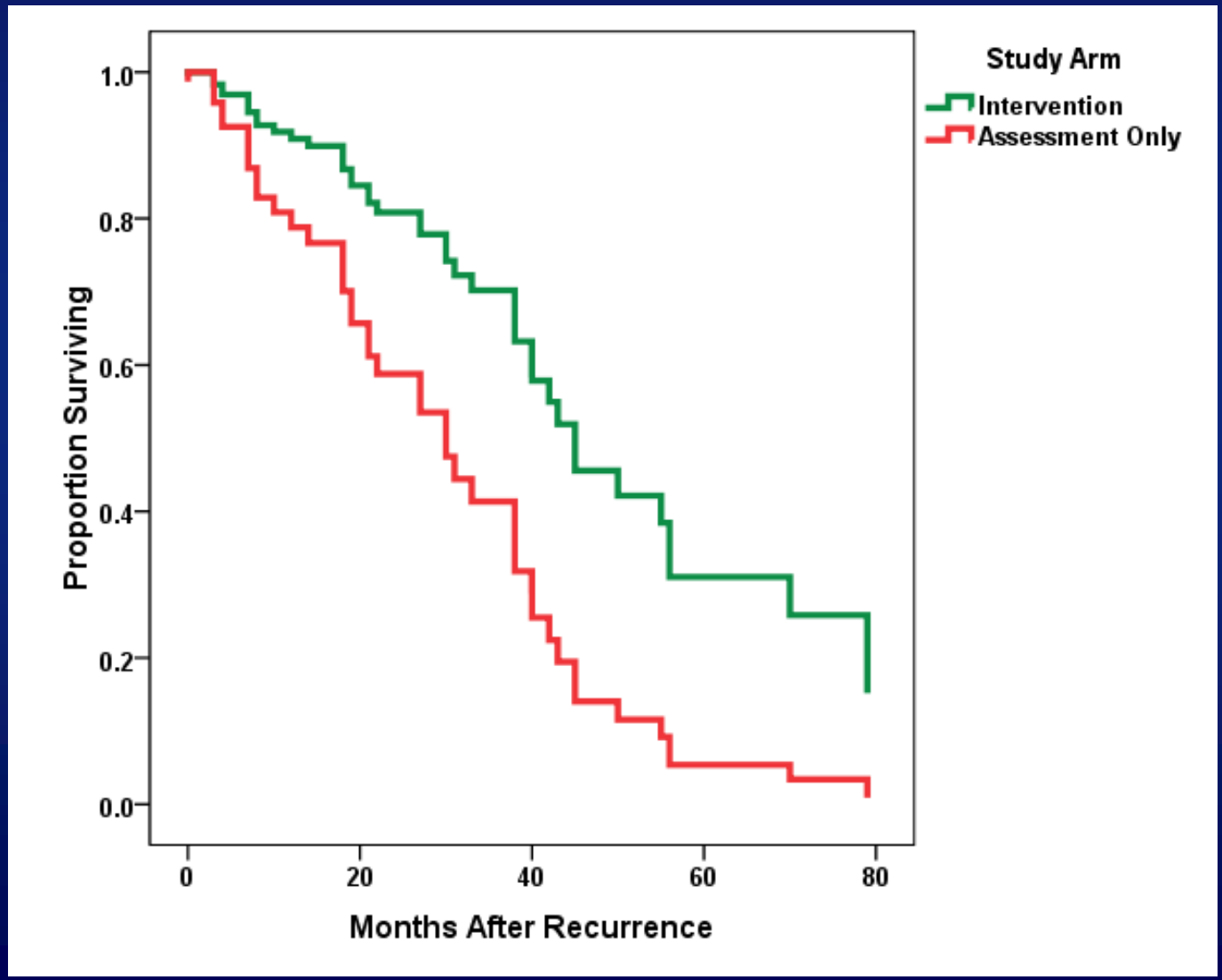


(PM, 2009)

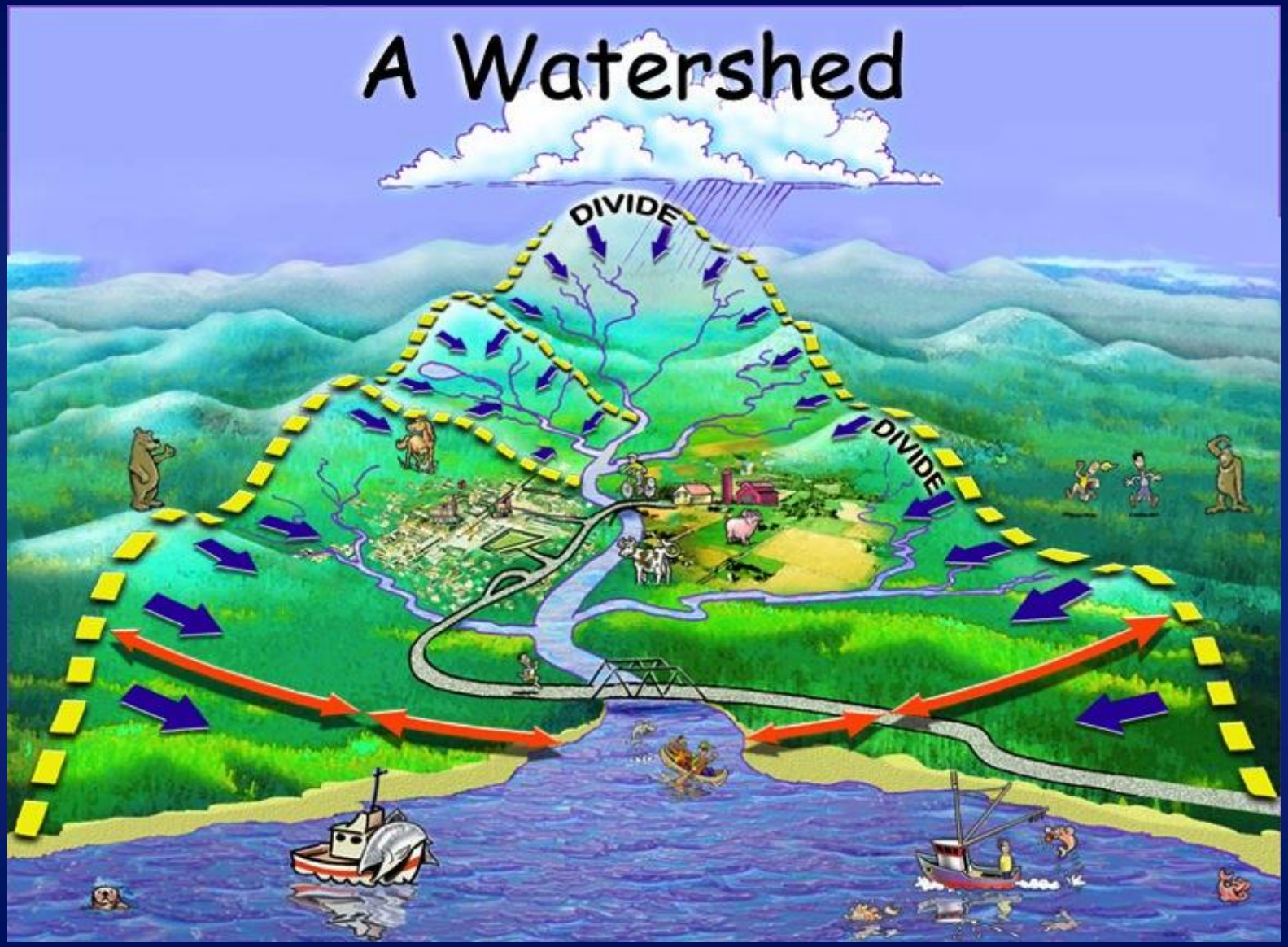
45% Reduced Risk of Breast Cancer Recurrence for patients who received a psychological intervention



60% Reduced Risk of Breast Cancer Death following Recurrence



The future?



Moving Forward, #1 - 4

#1. Screen and implement what exists now.

#2. Expand dissemination/implementation of what exists now.

#3. Stimulate and reinforce innovations in intervention research.

4#. Embrace the “whole” cancer patient.

JOURNAL OF CLINICAL ONCOLOGY

ASCO SPECIAL ARTICLE

Screening, Assessment, and Care of Anxiety and Depressive Symptoms in Adults With Cancer: An American Society of Clinical Oncology Guideline Adaptation

Barbara L. Andersen, Robert J. DeRubeis, Barry S. Berman, Jessie Gruman, Victoria L. Champion, Mary Jane Massie, Jimmie C. Holland, Ann H. Partridge, Kate Bak, Mark R. Somerfield, and Julia H. Rowland

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Authors' disclosures of potential conflicts of interest and author contributions are found at the end of this article.

Reprint requests: American Society of Clinical Oncology, 2318 Mill Rd, Suite 800, Alexandria, VA 22314; e-mail: guidelines@asco.org.

0732-183X/14/3299-1/$20.00

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ABSTRACT

Purpose
A Pan-Canadian Practice Guideline on Screening, Assessment, and Care of Psychosocial Distress (Depression, Anxiety) in Adults With Cancer was identified for adaptation.

Methods
American Society of Clinical Oncology (ASCO) has a policy and set of procedures for adapting clinical practice guidelines developed by other organizations. The guideline was reviewed for developmental rigor and content applicability.

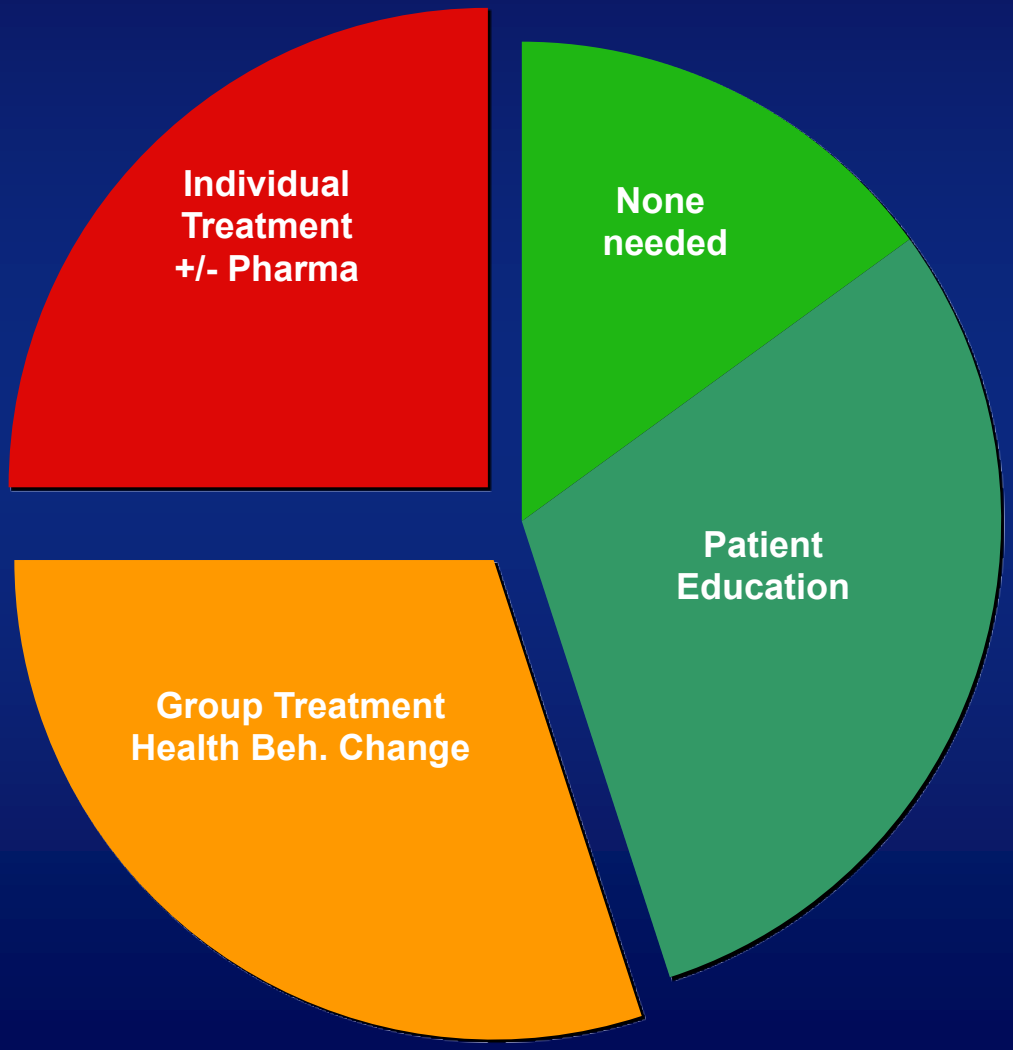
Results
On the basis of content review of the pan-Canadian guideline, the ASCO panel agreed that, in general, the recommendations were clear, thorough, based on the most relevant scientific evidence, and presented options that will be acceptable to patients. However, for some topics addressed in the pan-Canadian guideline, the ASCO panel formulated a set of adapted recommendations based on local context and practice beliefs of the ad hoc panel members. It is recommended that all patients with cancer be evaluated for symptoms of depression and anxiety at periodic times across the trajectory of care. Assessment should be performed using validated, published measures and procedures. Depending on levels of symptoms and supplementary information, differing treatment pathways are recommended. Failure to identify and treat anxiety and depression increases the risk for poor quality of life and potential disease-related morbidity and mortality. This guideline adaptation is part of a larger survivorship guideline series.

Conclusion
Although clinicians may not be able to prevent some of the chronic or late medical effects of cancer, they have a vital role in mitigating the negative emotional and behavioral sequelae. Recognizing and treating effectively those who manifest symptoms of anxiety or depression will reduce the human cost of cancer.

J Clin Oncol 32. © 2014 by American Society of Clinical Oncology

(JCO, 2014)

Stepped care for psychosocial care



Screening and Assessment – Depressive Symptoms in Adults with Cancer

Screen at pre diagnosis, other times, and as is relevant[1]

2 item PHQ-9[2]: 1) Little interest or pleasure in doing things (anhedonia)
2) Feeling down, depressed, or helpless (depressed mood)

Patient reports a score of 0 or 1

No Further Screening

Patient reports a score of 2 or 3 on either item

Complete 7 remaining PHQ-9 items[3]

None/Mild Symptomatology (Score 2-7)

Moderate Symptomatology (Score 8-14)

Moderate to Severe Symotomatology (Score 15-19)
Severe Symptomatology (Score 20-27)

Identify pertinent history / risk factors
- History: Prior depressive disorder, with/without prior treatment
- History: Familial history of depression, with/without prior treatment
- History: Persons with other psychiatric disorders (e.g., GAD), including substance abuse
- Recurrent, advanced, or progressive disease
- Presence of chronic illness(es) in addition to cancer
- Singleton (single not married, widowed, divorced) vs. partnered
- Unemployed or lower socioeconomic status
- Female gender

None/Mild Symptomatology

- No or minimal symptoms of depression
- Effective coping skills and access to social support
- Few, if any, risk factors

Moderate Symptomatology

- Subthreshold depressive symptoms
- Functional impairment from mild to moderate
- May have risk factors
- Seek consultation (psychology or psychiatry) for determination of diagnosis

Moderate to Severe Symotomatology

- Has most depressive symptoms or symptoms which do not remit following Pathway 2 treatment(s)
- Symptoms interfere moderately to markedly with functioning
- Risk factors usually present
- Referral to psychology and/or psychiatry for diagnosis and treatment

Care Map – Depressive Symptoms in Adults with Cancer

None/Mild Symptomatology
Care Pathway 1
Supportive Care and Prevention

Moderate Symptomatology
Care Pathway 2
Psychological (group) or Psychosocial

Moderate Severe to Severe Symptomatology
Care Pathway 3
Psychological (individual) and/or Psychiatric

•Offer referral to supportive care services

Intervention Options (low intensity)
•Self guided or assisted (or computerized) cognitive behavior therapy (CBT); including behavioral activation, problem solving, and relapse prevention
•CBT for depression (group)
•Psychosocial interventions (group)
•Structured physical activity program
•Pharmacologic, as appropriate

Intervention Options (high intensity)
•Psychological (individual): Cognitive Behavior Therapy, Interpersonal Therapy)
•Pharmacologic
•Combined

Psychological (individual)
•Delivered by licensed mental health professionals using relevant treatment manuals that include some or all of the following content: cognitive change, behavioral activation, biobehavioral strategies, education, and relaxation strategies. Relapse prevention additions are also important.
•Monitor for efficacy.
•Behavioral couples' therapy can be considered for people with a regular partner and where the relationship may contribute to the development or maintenance of depression.
•After treatment/relapse prevention, consider referral for pharmacotherapy should depressive symptoms not remit or worsen.

Psychosocial (group)
•Structured, professionally led, using relevant treatment manuals which include some or all of the following content: stress reduction, positive coping (seeking information, problem solving, assertive communication), enhancing social support from friends/family, coping with symptoms (e.g., fatigue, sexual dysfunction) and bodily changes, health behavior change (diet, activity level, tobacco use), and strategies to maintain change.
•At post treatment, consider referral for individual treatment should depressive symptoms not remit or worsen.

Pharmacological
•Anti-depressants, with choice informed by side effect profiles, interactions with current medications and cancer therapies, response, patient age. and preference.
•Monitor regularly for adherence, side effects, and adverse events.
•In most cases, medication needs to be continued after remission of symptoms to reduce the risk of relapse.

Follow-up and ongoing re-assessment

Supportive Care Services for All Patients, As Available and Appropriate

Provide education and information (verbal plus any relevant materials) for the patient and family about:
•Normalcy of stress in the context of cancer
•Specific stress reduction strategies (e.g., progressive muscle relaxation)
•Sources of informational support/resources (patient library, reliable internet sites)
•Availability of supportive care services (e.g., professionally led groups, informational lectures, etc.) for the patient and family at the institution or in the community
•Availability of financial support (e.g., accommodations, transportation, health/drug benefits)
•Information about signs and symptoms of depression and avenues for care
•Information on sleep hygiene and self-management of fatigue
•Information on other intervention resources for physical activity, nutrition, or relevant others

Moving Forward, #1 - 4

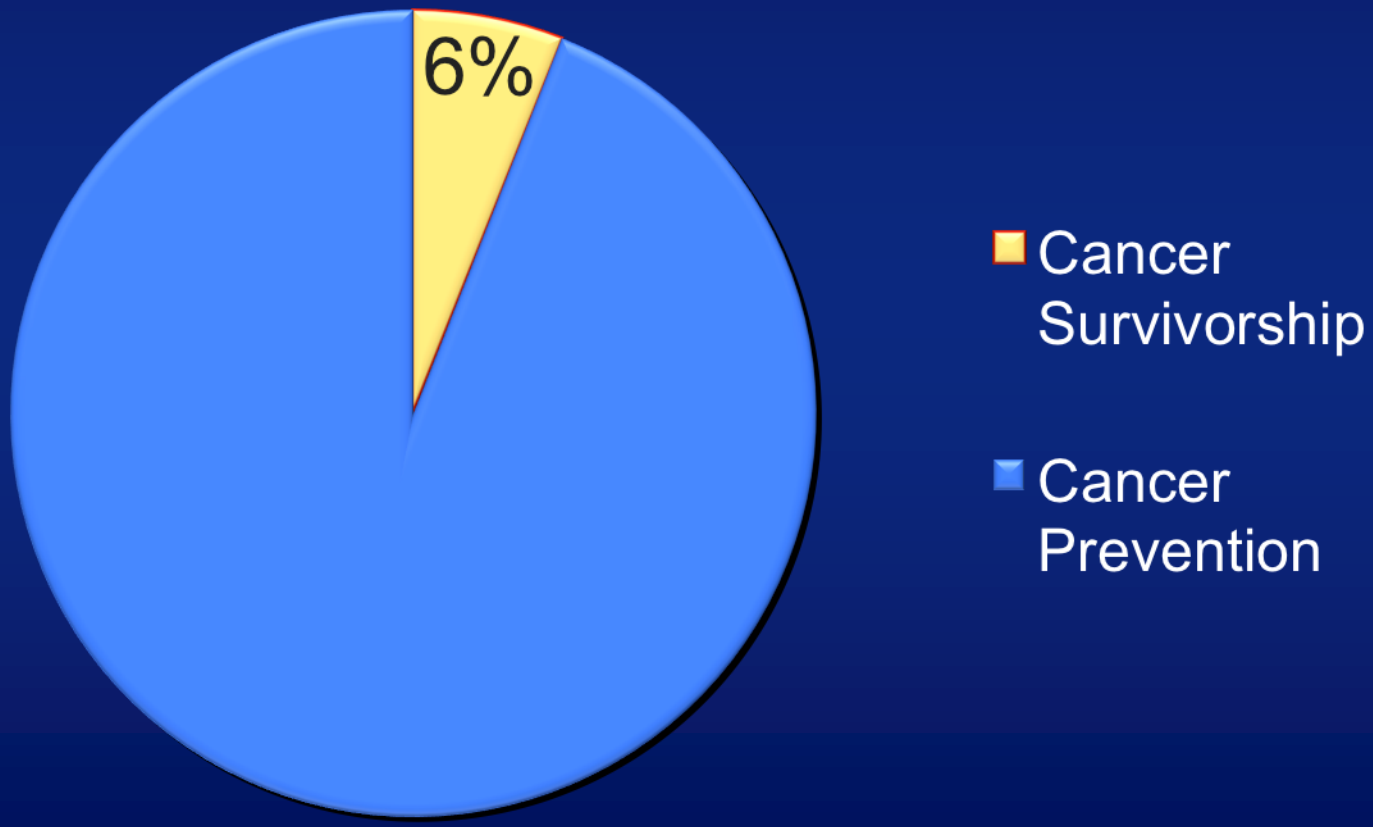
#1. Screen and implement what exists now.

#2. Expand dissemination/implementation of what exists now.

#3. Stimulate and reinforce innovations in intervention research.

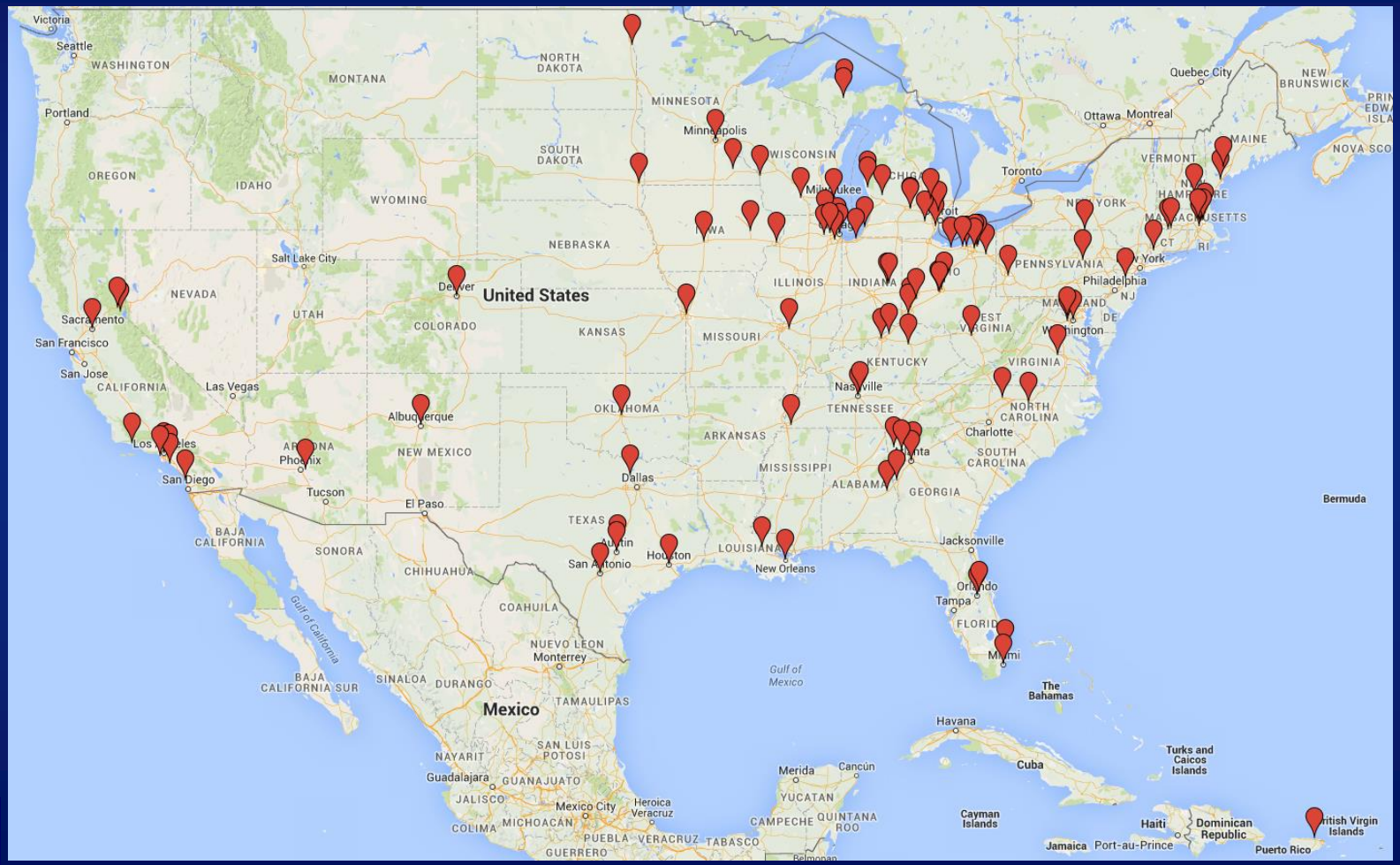
4#. Embrace the “whole” cancer patient.

NCI Dissemination/Implementation Grant Awards, 2003-2012



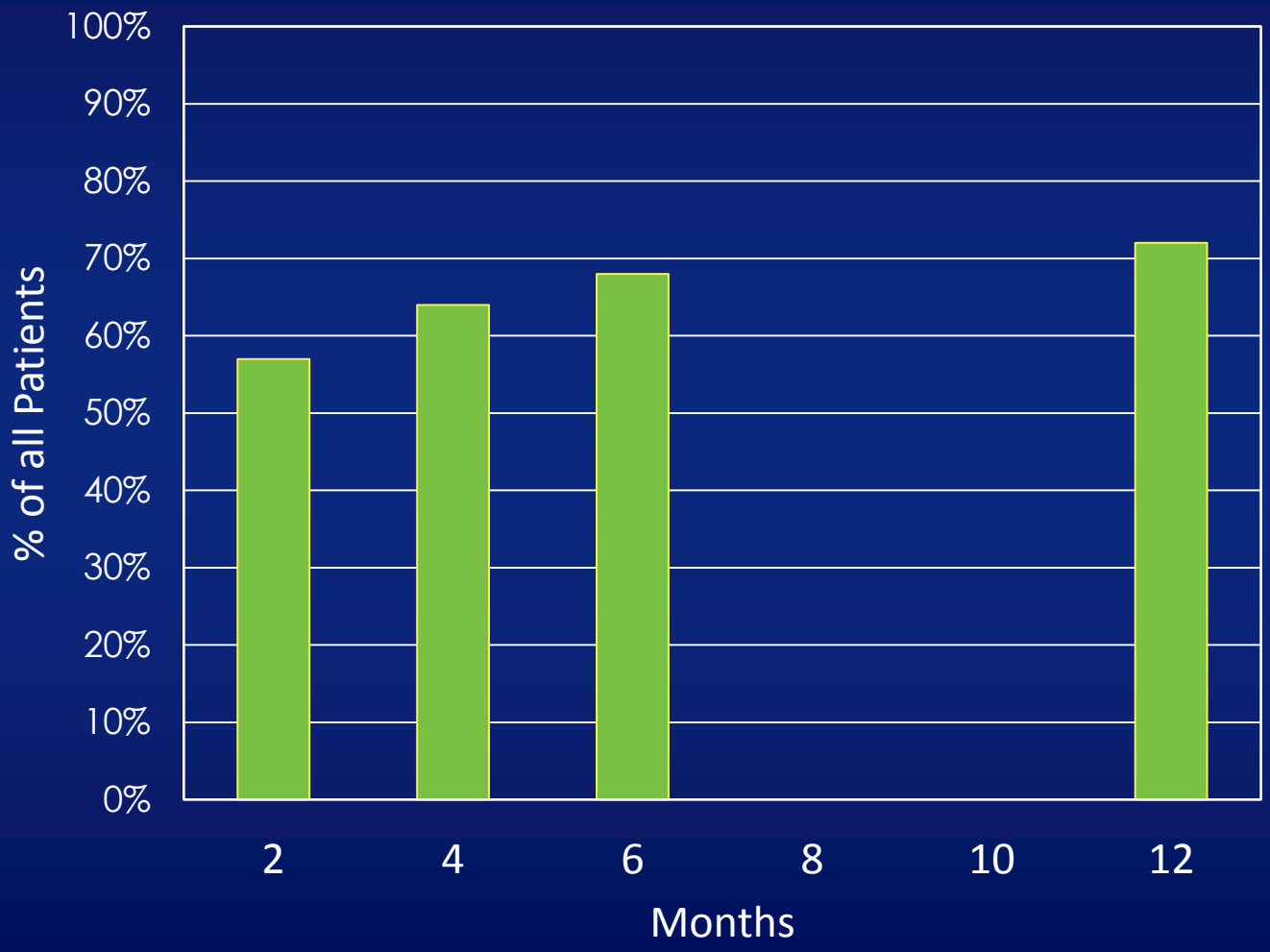
(TBM, Neta et al., 2015)

Trainees (N=108)



from Cancer to Health
A Stress Management and Coping Intervention

Usage: Implementation & Sustainment



Moving Forward, #3

#1. Screen and implement what exists now

#2. Expand dissemination/implementation of what exists now.

#3 Stimulate and reinforce innovations in intervention research.

- **Optimize interventions (NOT "How low can you go")**
- **Expand outcomes**
  - **e.g., health, costs**
- **Shift some interventions to eHealth**

Moving Forward, #4

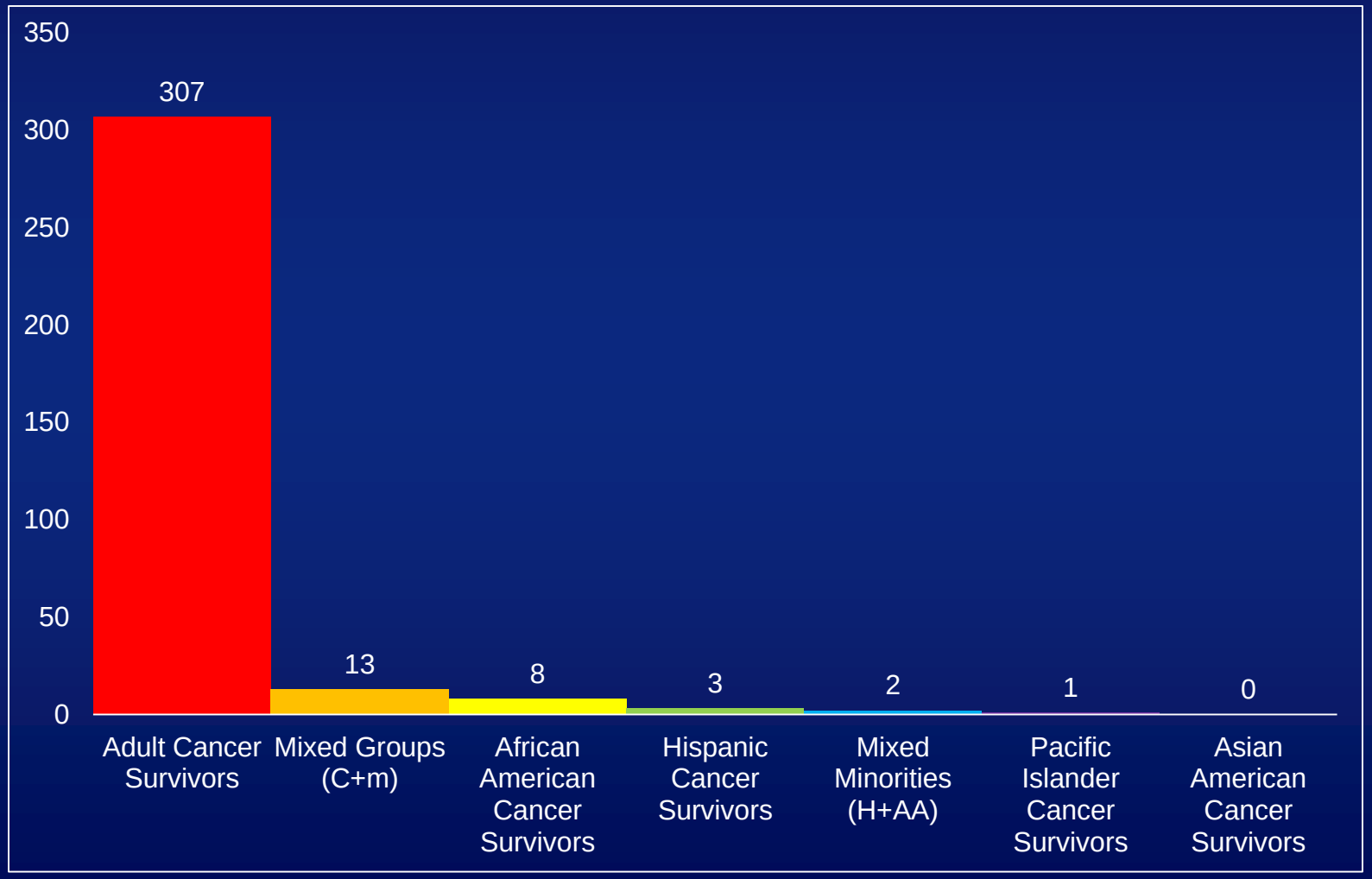
#1. Screen and implement what exists now.

#2. Expand dissemination/implementation of what exists now.

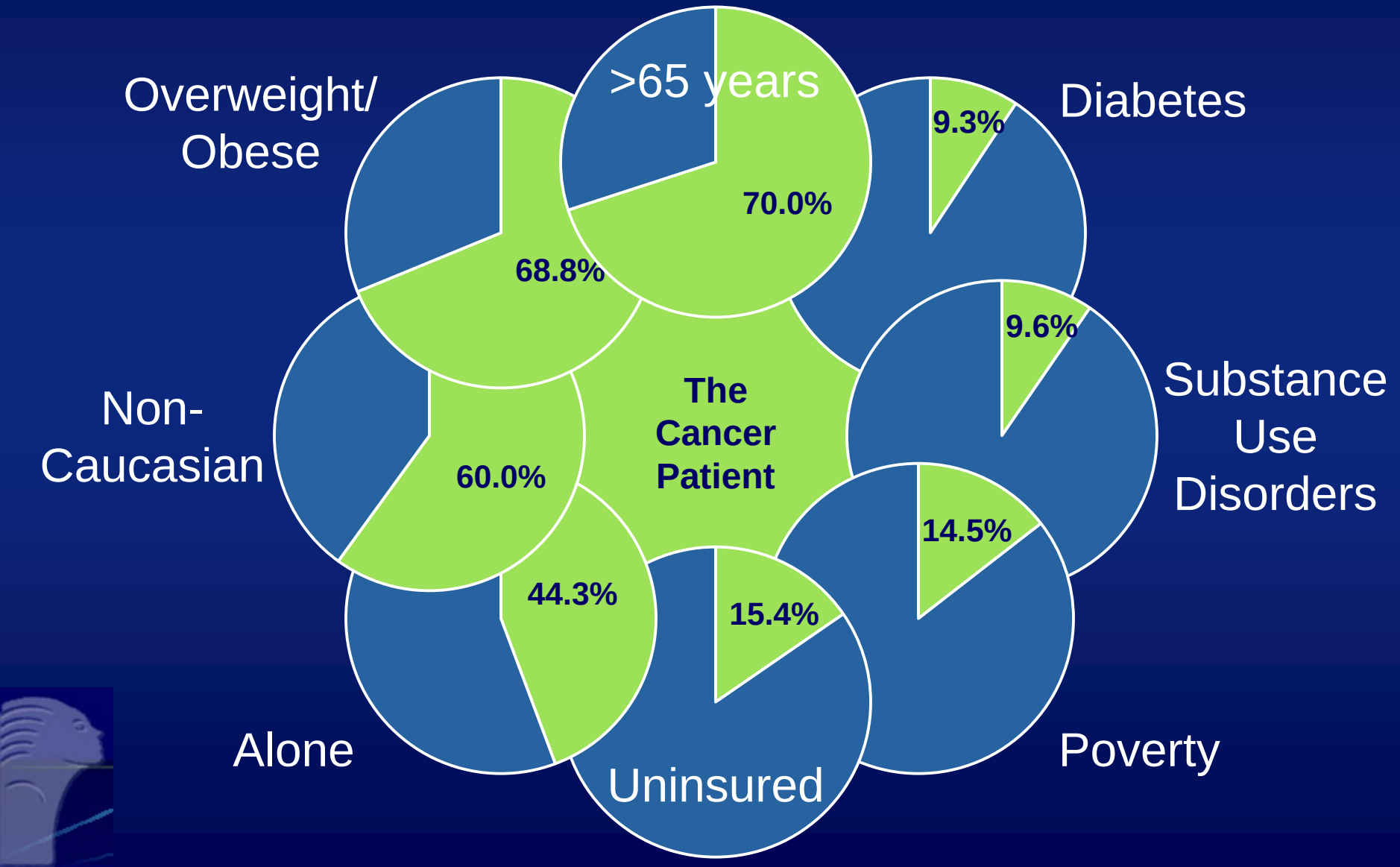
#3. Stimulate and reinforce innovations in intervention research.

4#. Embrace the “whole” cancer patient.

The Number of Psychosocial Intervention RCTs by 2015



Needs for the Future: Patients



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- American Cancer Society & Longaberger
  PBR-89, RSGPB-03-248-01-PBP
- National Cancer Institute
  R01 CA92704, K05 CA098133, 2K05 CA098133,
  R25E CA163197
- US Army Breast Cancer Program
  DAMD 17-94-J-4165, DAMD 17-96-16294
- National Institute of Mental Health
  R01 MH51487