



Meeting 2

Subcommittee 3 Cancer- Primary Prevention

Chair: Anne McTiernan

Members: Peter Katzmarzyk, Ken Powell

Question 1

- **What is the relationship between physical activity and invasive cancer incidence?**
 - **What is the dose-response?**
 - **Does the relationship differ by gender, race, or ethnicity?**
 - **Does the relationship differ by specific cancer subtypes?**
 - **Is the relationship present in persons at high risk, such as those with familial predisposition to cancer?**

Analytical Framework



Subcommittee: Cancer

Systematic Review Question

What is the relationship between physical activity and invasive cancer incidence?

Target Population

Adults, 18 years and older

Exposure

All types and intensities of physical activity, including lifestyle activities/leisure activities

Comparison

Adults who participate in varying levels of physical activity

Endpoint Health Outcome

Incidence of invasive cancer

Key Definition

Invasive Cancer: Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Also called infiltrating cancer (NCI Dictionary of Cancer Terms <https://www.cancer.gov/publications/dictionaries/cancer-terms?crid=45741>).

Common Inclusion/ Exclusion Criteria



- **Language**
 - **Exclude: Studies that do not have full text in English**
- **Publication Status**
 - **Include: Studies published in peer-reviewed journals, PAGAC-approved reports**
 - **Exclude: Grey literature**
- **Study Subjects**
 - **Exclude: Studies of animals only**

Inclusion/Exclusion Criteria



- **Date of Publication**
 - **Original Research: Include 2006 - Present**
 - **Existing Sources: Include 2006 - Present**
- **Study Subjects**
 - **Include: Adults ages 18 and older**
 - **Exclude: Studies with subjects exclusively under 18 years of age**
- **Study Design**
 - **Include: Randomized controlled trials, Prospective cohort studies, Case-control studies, Systematic reviews, Meta-analyses, PAGAC-Approved reports**
 - **Exclude: Non-randomized controlled trials, Retrospective cohort studies, Cross-sectional studies, Before-and-after studies, Narrative reviews, Commentaries, Editorials**
- **Exposure/Intervention**
 - **Include: All types and intensities of physical activity**
 - **Exclude: Missing physical activity, Single, acute session of exercise, Therapeutic exercise, Physical fitness as the only exposure, Physical Activity variable only present as confounding variable**
- **Outcome**
 - **Include: Invasive cancers**
 - **Exclude: Carcinoma in situ only**

Draft Search Terms

- **Physical Activity Terms**
 - Will use the PAGAC general terms
- **Outcome Terms**
 - Search will use general terms (e.g. cancer, carcinoma, hepatoma, etc.) which will result in cancers by site (e.g. breast, prostate, colon), and by sub-type (e.g., hormone-sensitive breast vs. other)

Prioritized Questions



1. What is the relationship between physical activity and invasive cancer incidence?
 - What is the dose-response?
 - Does the relationship differ by gender, race, or ethnicity?
 - Does the relationship differ by specific cancer subtypes?
 - Is the relationship present in persons at high risk, such as those with familial predisposition to cancer?
2. What is the relationship between sedentary behavior and invasive cancer incidence?

Cancer Endpoints Across Subcommittees



Population	Subcommittee		
	Cancer	Chronic Disease	Sedentary
General population	Site-specific incidence		Mortality Site-specific incidence
Cancer Survivors		Survival Recurrence 2 nd cancers Quality of life Co-morbid conditions Physical function	

Areas for PAGAC Input or Discussion



- **There are more than 100 types of cancer.**
 - **We plan to include the common types**
 - **Need to develop criteria for not including information on a specific cancer site or subsite**