The Skin Cancer Prevention Approach: A comprehensive tool for population level efforts in skin cancer

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The Problem: Skin Cancer

- **Incidence in Canada**
  - Non-melanoma skin cancer rates have more than doubled since the 1960’s (Demers et al., 2005)
  - Skin cancer accounts for 1 in 3 new cancer cases (Canadian Cancer Society/ National Cancer Institute of Canada, 2008)
  - Large burden on health care system

- **Risk Factors** (Armstrong & Kricker, 2001; IARC, 1992)
  - Age, genetics, skin type, environmental factors, etc
  - Primary Cause
    - Overexposure to natural and artificial (tanning equipment) sources of ultraviolet radiation (UVR)
      - Frequency and intensity

- **Types**
  - Non-melanoma
    - Squamous cell carcinoma
    - Basal cell carcinoma
  - Melanoma
Estimated Skin Cancer Cases in Canada (2008)

Figure 1. Estimated new cases of cancer in Canada for 2008 (Canadian Cancer Society/ National Cancer Institute of Canada, 2008).
Background

- Alberta Health Services - Cancer Prevention Program Mandate:
  - “Committed to a reduction in the incidence of cancer and other chronic diseases in Alberta, including skin cancer”.
  - Former Alberta Cancer Board 2025 goals:
    - Reduce incidence and mortality from skin cancer, reduce suffering from skin cancer

- Environment Unit
  - Situational Analysis of Skin Cancer Prevention in Alberta
    - Strategic, multi-layered analytic process
      - incidence/ mortality trends, literature/ best practice review, target group identification, population protective behavioral trends, identification of existing assets across Alberta
  - Required a comprehensive approach for guiding population level efforts in skin cancer prevention
  - Skin Cancer Prevention Strategies – need to address strong socio-cultural, behavioural and physical environmental factors
Existing Approaches and Models

- **Popular Models/ Theory in Population Health/ Health Promotion**
  - PRECEDE-PROCEED
  - Population Health Template Working Tool
  - Socio-Ecological model
  - Ecological theory
  - System’s theory
  - Harm Reduction approach
  - Precautionary Principle
  - Social Cognitive theory
  - Population Health Promotion model
  - Transtheoretical model
  - Theory of Planned Behaviour
  - RE-AIM

- **Existing Skin Cancer Prevention Models**
  - **Australian approaches** (Ferguson & Vita, 2002; Montague, 2001)
    - SunSmart program
    - Stakeholder interactions
    - Sun protection infrastructure
  - **WHO (2006)**
    - Causal factors of skin cancer
  - **CDC** (Saraiya, 2002)
    - Media intervention framework for skin cancer

- **Review Literature on Community-Intervention Theory**
Project Purpose

- **Purpose**
  - To develop an omnibus model that will guide population level efforts in skin cancer prevention, based on the following inclusion criteria:

- **Approach Inclusion Criteria**
  - Ecological Approach
    - Understanding of how to bring about changes in a system as it relates to the dynamics of an intervention in a particular context
  - Process oriented
    - Function as a dynamic planning tool for planning, implementing and evaluating population level efforts
  - Address weaknesses in previous theoretical approaches/models
    - Recognize the inherent complexities of population level change processes
Model Merge/ Approach Development

- Established a working group
  - Reviewed existing theoretical models/ approaches

- Key discussions:
  - Understanding of the needs of the Skin Cancer Prevention team
  - Review of theoretical constructs
  - Determination of which combinations of the constructs were most suitable
  - Application to intervention design/ program development
The Skin Cancer Prevention Approach (SCPA)
Process Elements of the SCPA

1. Define the Problem
   - What are the incidence/mortality rates?
   - Who is getting skin cancer and who is not?
   - Level of burden on our system

2. Situational Analysis
   - “Strategic, multi-layered analytic process assessing community profiles, literature reviews, best practices, regional needs and assets, etc.”
   - Theoretical underpinning
     - How will you improve skin cancer outcomes?
     - What else do you need to know to develop a plan for reducing skin cancer?

3. Program Development:
   - Planning: Program logistics, logic model
   - Implementation: Monitoring of program strategies
   - Evaluation: Stakeholder involvement, dynamic process
     - Plan from start!
Where are we now?
Discussion

● Strengths
  – Addresses complex change processes
    ● Context important!
  – Use as a Planning Tool
    ● How do different planning processes work together with theory?
  – Skin cancer focus
    ● One approach doesn’t fit all health issues

● Limitations
  – Confusion over linear/non-linear nature
  – Model testing – potential next step?
  – Theoretical stakeholder component
Conclusions

- Use for Strategic Development
  - Other health agencies
  - Application to different target groups within skin cancer prevention
  - Application to different contexts and populations
  - Application to general and specific target groups

- Improving population-level skin cancer outcomes is an ever-evolving process
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