Adolescent Cancer Awareness: improving education and understanding of testicular cancer, melanoma and HPV-related cancers in adolescents

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Introduction

Background:

- Evidence-based cancer screening tools have contributed to a decline in the number of new cancer cases and prevented deaths from some cancers.

Our goals:

- Empower young adults to become active participants in their health.
- Promote healthy habits early on to avoid development of cancer
- Discourage the use of tanning beds, obtain HPV vaccinations, self-examinations)

Target Population

Town demographics:

- Population: 4,870
- 99.7% have a high school diploma
- Median Household income is $160,000
- 97.3% have health insurance coverage
- 81.7% have BA degree or higher
- Carlisle has a very low unemployment rate
- Nearby towns: Concord, Acton, Westford, Bedford, Billerica, Chelmsford
- Strong History of community health promotion
- Concerns in Carlisle:
  - Carlisle is a small town with an inherently limiting sample size
  - Testicular cancer: 2 cases within recent year
  - Melanoma: statistically significant incidence in Carlisle per MCR incidence data 2005-2009

Goal & Process

Goals:

The goal of our project was to increase the awareness in Carlisle's adolescent population regarding cancer prevention, and behaviors that may put them at risk for the development of cancer later in life. The three cancers we chose were testicular cancer, with the goal of promoting self-examinations, melanoma, aiming at encouraging proper sun screen use and discouraging tanning bed use, and HPV-related cancers, in the hope of increasing vaccination in adolescent men and women.

Process:

For each of these cancers, we created an interactive online quiz which is linked to the 3 QR codes and to the concord Carlisle DPH website. These quizzes are geared towards increasing awareness of these three cancer topics, and promoting preventative and early detection behaviors

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Testicular Cancer

What you need to know about Testicular Cancer (TC):

- USA has 5th highest TC age-standardized incidence rate
  - 5.2 out of 100,000 men diagnosed with TC annually
  - Incidence of testicular cancer has been rising globally
- TC incidence increasing, yet mortality decreasing (past 30 years)
- Increase in 5-year survival rates from 63% to greater than 90%
- 98% of TC are of germ cell origin

Risk factors:

- Cryptorchidism (undescended/abnormal testicular development)
- Family history of germ cell tumors: 4-10-fold increased risk of TC
- Race: White men 5x more likely than AA or Asian to develop TC
- Age: 15-40 are at higher risk

Treatment:

- TC diagnosis, regardless of stage, has excellent prognosis with treatment
- More than 95% of all men diagnosed with TC survive after treatment
- Earlier detection equals a better prognosis and decreases complications

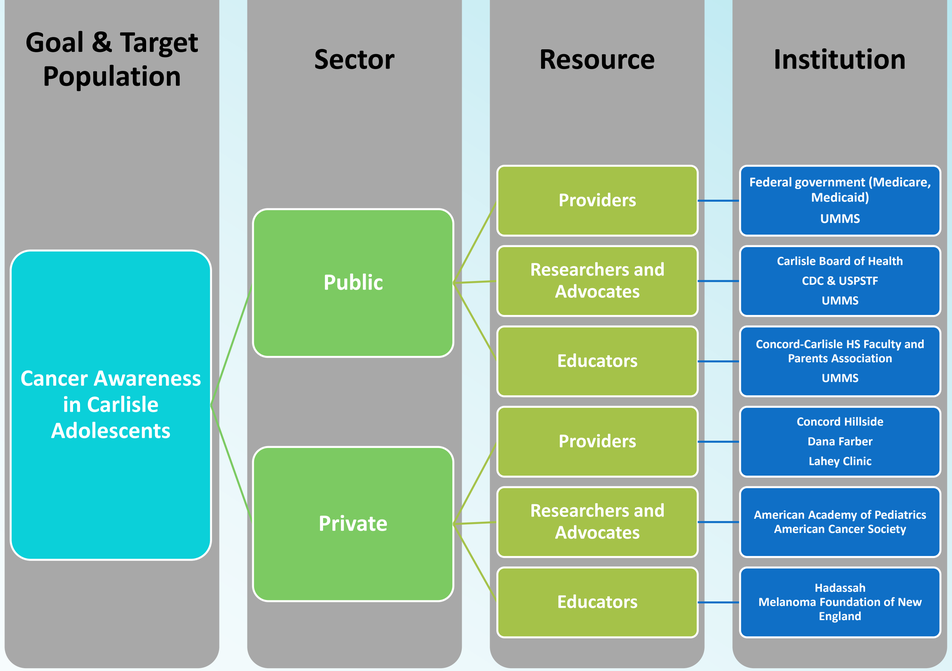
Melanoma

What you need to know about melanoma:

- Two-thirds of melanoma may be attributed to UV exposure

- **Tanning Beds:**
  - Ever used in lifetime → 20% increase in risk for melanoma
  - First use in teens/20s → 75% increased risk for melanoma
  - American Academy of Pediatrics supports ban: children < 18yrs
  - Addiction process similar to opiate abuse

- **Sun Screen:**
  - 73% risk reduction for those who follow sunscreen guidelines
  - National Council on Skin Cancer Prevention recommendations:
    - SPF of at least 30
    - Re-apply every 2 hours whether swimming or not
    - Sunscreen labeled "Broad Spectrum" for both UVA and UVB rays



HPV-related Cancers

What you need about the HPV-vaccine:

- About 79 million Americans are HPV-infected
- 14 million Americans are infected each year
- Only 39.3% of Massachusetts adolescent females aged 13-17 receive the complete 3-dose HPV series; only 37.6% nationally
- Male vaccination rates are only 14% nationally

- **Current Recommendations:**
- The HPV vaccine is CDC-recommended for both males and females at 11-12 years of age
- Surveys show that the HPV vaccine does not cause anymore pain that other common vaccinations
- The HPV vaccine protects against HPV infection and is only effective if given before exposure (ages 11-12).
  - The HPV vaccine lowers cancer risk for many cancers that are HPV-16 and HPV-18 related including cervical, anal, vaginal, vulvar, penile and oropharyngeal cancers
  - The HPV vaccine has not been shown to promote promiscuity

Common Parental Questions

- Will insurance pay for the vaccine?
  - Most insurances cover the HPV vaccine
- What if my child is not covered?
  - The Vaccines for Children (VFC) program can help provide access to the HPV vaccine for children who may not otherwise be able to have access to it

Conclusions and Future Directions

What we accomplished?

- Created awareness materials based on target population needs
- Bridged the ideas of interprofessional teams in order to achieve holistic end-product for adolescents
- Used proper venues & marketing tools to attract intended audience
- Gained insight on our role as future physicians regarding the promotion of healthy living habits

Future Directions

- Obtain survey responses to further assess target population's health-related knowledge
- Increase circulation of awareness materials for adolescents outside of Carlisle

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