

NCI's state and community research initiative: a model for future tobacco control research

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INTRODUCTION

Communicable disease outbreaks ranging from measles to the Zika virus capture media headlines every day; however, as a nation, Americans largely die from heart disease and cancer. Cancer is the second most common cause of death in the USA.¹ In 2016, more than 1.6 million new cancer cases will be diagnosed in the USA and 595 690 cancer deaths will occur.¹ Moreover, 30% of cancer deaths are attributable to smoking—which means these deaths are preventable.² Reductions in cigarette smoking over the last 40 years have reduced cancer-related disease and deaths, and there is strong evidence that sustained comprehensive tobacco control programmes have accelerated declines in smoking-related cancers.^{3–6}

By investing US\$46 million in the State and Community Tobacco Control (SCTC) Research Initiative, the National Cancer Institute (NCI) recognised the power of population-based interventions to change the trajectory of cancer in the USA. Consistent with the Centers for Disease Control and Prevention's Health Impact Pyramid, these interventions reach broad segments of society, employ fewer resources than clinical and educational interventions and are highly effective at preventing cancer and other chronic diseases.⁷

VISION

The SCTC Research Initiative is remarkable for its vision and high-quality cross-collaboration among researchers and practitioners, which resulted in an extraordinary level of productivity and useful

research. NCI rightfully deserves considerable praise for funding a research initiative that:

- ▶ Focused on research topics highly relevant to SCTC efforts;
- ▶ Actively engaged public health and legal practitioners and community members;
- ▶ Supported meaningful cross-disciplinary research collaboration;
- ▶ Fostered development of the next generation of investigators;
- ▶ Advanced data collection methods;
- ▶ Disseminated findings that extended beyond peer-reviewed literature to include policy reports, case studies, websites and videos;
- ▶ Promoted transparency;
- ▶ Laid the foundation for future research; and
- ▶ Informed the decisions and actions of public health and policy officials and community organisations to prevent and reduce tobacco use and to ultimately save lives.

RELEVANT RESEARCH

The SCTC Research Initiative provided timely and practical research into the most important questions and problems facing tobacco prevention and control today, which helped to establish the crucial evidence base necessary to make concrete, rational decisions about what to do and how to prioritise evidence-based interventions. One major contribution was the 2014 Tobacco Control Supplement focused on electronic cigarettes (e-cigarettes). These studies guided the e-cigarette policy agenda in states and communities by quantifying the scope and magnitude of the unregulated e-cigarette environment related to the diversity of brands, flavours, product availability and marketing and explained the price elasticity of these products.⁸ The paper by Zhu *et al*⁹ on the number of e-cigarette brands and flavours was widely cited, including mainstream media, by Congress, and in documents such as California's State Health Officer's Report on E-Cigarettes.^{10–14}

Involving practitioners in the research strengthened its utility to states and communities. For example, engaging tobacco

control stakeholders in designing the Standardized Tobacco Assessment for Retail Settings (STARS) revolutionised how tobacco retail assessments are conducted nationwide. In this issue, Henriksen *et al*¹⁵ describe the rapid and widespread uptake of STARS by SCTC programmes.

NCI created a culture of collaboration, and the Coordinating Center at RTI International helped facilitate collaborative development projects in response to an evolving research environment, supported researcher and practitioner workgroups and accelerated dissemination of research findings to a wide array of audiences.¹⁶ A flexible mechanism to fund collaborative projects increased researcher synergy and leveraged subject-matter expertise. The Coordinating Center and the Steering Committee demonstrated a refreshing commitment to transparency and research dissemination with guidance from NCI staff. The proactive dissemination of research findings through the SCTC Research Initiative website was a substantial asset, providing rapid access to research products including articles, conference abstracts and posters, reports, databases and videos.¹⁷

The SCTC Research Initiative not only aided traditional public health and advocacy organisations but also facilitated the work of public health law organisations. These organisations provide guidance on whether policy approaches are legally defensible in the context of their effectiveness to reduce tobacco use. SCTC research provided important answers and strong evidence for particular policies. For example, studies on the demand for tobacco products consistently show that tobacco tax increases result in a decrease in tobacco use, especially among minors.¹⁸ SCTC research took this finding a step further by expanding public understanding about the effectiveness of tax and non-tax pricing strategies to reduce tobacco use among children and other high-risk groups.^{19–20} It also provided information on how different policies such as price increases and secondhand smoke protections can be combined to maximise the public health benefits.¹⁹ In this issue, Huang *et al*²¹ shed further light on price strategies by evaluating components of minimum price laws to understand their impact on cigarette prices, while Golden *et al*²² analyse various state minimum price law scenarios and quantify their potential to shrink the disparity in smoking prevalence between high and low income smokers. This research provides evidence about the effectiveness of

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different types of interventions, which is essential to understanding and supporting those policy options that will create the greatest public health benefit, facilitate drafting regulations and that will withstand potential legal challenges.

The SCTC Research Initiative also made major contributions to improve research methods and data collection.^{23 24} In this issue, Kostygina *et al*²⁵ describe important new tools to collect and analyse the impact of social media and provide insight into how social media influence and normalise little cigar, cigarillo and e-cigarette use.

FOCUS ON VULNERABLE POPULATIONS

A consistent theme of the SCTC research initiative was its emphasis on reducing tobacco use among vulnerable populations, with particular focus on American Indian tribes. In this issue, Nez Henderson *et al*²⁶ and Chief *et al* provide a rare in-depth look at secondhand smoke attitudes among advocates and community leaders on the Navajo Nation and the link between attitudes and the slow progress made towards adopting 'commercial tobacco' smoke-free policies.²⁷ Also in this supplement, DeLong *et al*²⁸ describe the mostly weak strategies used to regulate tobacco sales on tribal lands. Together these studies suggest inadequate application of secondhand smoke and pricing strategies to reduce tobacco use among American Indian populations.²⁸ In contrast, in this issue Lisha *et al*²⁹ describe an innovative approach to address tobacco use among another high-risk population— young adults, which moves away from the traditional focus on race and ethnicity to focus on peer crowds such as 'Hip-Hop' and 'Hipster'. Their finding that peer crowd identity more strongly predicts tobacco use than race and ethnicity provides evidence on how to effectively target interventions to reduce young adult tobacco use. Kegler *et al* focused on very low income families, in which a smoker resides in the household. Capitalising on the access that 2-1-1 call centres have to low income families, this study demonstrated the value of cultivating partnerships with non-traditional organisations to recruit and deliver smoke-free home interventions, which in this case significantly increased the proportion of fully smoke-free homes.³⁰

A MODEL FOR FUTURE TOBACCO RESEARCH INITIATIVES

The researcher teams were the heart and soul of the SCTC Research Initiative.

Charged with focusing on innovative policy and population-based research that would benefit SCTC efforts, these researchers not only delivered but also hit a homerun. Simply put, the SCTC Research Initiative was exceptional. World-class researchers collaborated closely with state and local health experts, advocacy organisations and attorneys to identify real-world, relevant research questions that resulted in timely and important evidence-based solutions. This research initiative ensured that tobacco control practitioners, public health experts and advocates would have the latest science to guide allocation of the too-often limited resources and that this work will have a measurable impact.

Progress, fuelled by research, has reduced the burden of tobacco use in the USA over the past 50 years, but America's tobacco use epidemic continues to rage on, especially among certain vulnerable populations.¹⁸ As demonstrated by this initiative, the manufacture, marketing and availability of nicotine products continue to rapidly evolve, including extraordinary product diversity, and an insidious use of social media promotes and normalises product use. Continued investment in population-based research is essential. NCI should make the SCTC Research Initiative the model for future research initiatives and act quickly to capitalise on the momentum generated by these scientific findings. Future research should prioritise ways to accelerate reductions in tobacco-related disparities and support approaches that examine tobacco use, marketing and availability in the context of intersecting public health disciplines such as nutrition, physical activity, alcohol and marijuana use and gun violence prevention.

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