

Opportunities and barriers in the control and prevention of Lyme disease: Implications for practice

Author: Downs, Philip W.

[ProQuest document link](#)

Abstract: Lyme disease is currently the most infectious disease in North America with 300,000 people estimated to be diagnosed with this tick-borne infection per year. While various tick control and Lyme disease prevention practices are documented in the literature review, and comprehensively reflected in an integrated pest management (IPM) strategy, translational studies suggest that very few practices are implemented on a routine basis to influence disease transmission. Public and private sector stakeholders are increasingly playing an important role in tick control and educating populations about personal protective measures.

To understand the influence of the public and private sector on the frequency and coverage of Lyme disease control and prevention practices in Maryland during 2009-2014, interviews were conducted with key informants from the federal, state, and non-profit sector. In addition, public and private sector stakeholders from counties with a high incidence of Lyme disease (greater than 50 cases per 100,000 during 2008-2012) participated in an online survey to describe their role in tick control and Lyme disease activities. Results of these interviews provide context to understanding current control and prevention efforts, including the role of the state and county in the implementation of IPM.

Results showed significant contributions by the public and private sector in supporting tick control and tick-borne disease prevention practices in Maryland. All major components of IPM were identified in at least one of the targeted counties. Control and prevention practices were not homogenous across counties, reflecting potential differences in stakeholder engagement. To navigate the uncertainty of control and prevention strategies and to create a more comprehensive and inclusive structure for managing IPM, an adaptive resource management (ARM) strategy is recommended.

Four major recommendations are supported by study results, including: 1) formation of county level tick borne disease committees (TBDC) as sponsors of IPM change initiatives, 2) facilitation of stakeholder engagement and communication plan workshops, 3) adoption of a behavior change communication (BCC) framework into personal protective measures for TBDs, and 4) development of a state organized IPM certification program for pest control operators and landscape companies.

Links: [Linking Service](#)

Subject: Public health; Public policy; Epidemiology;

Classification: 0573: Public health; 0630: Public policy; 0766: Epidemiology

Identifier / keyword: Social sciences, Health and environmental sciences, Adaptive resource management, Control and prevention, Leadership, Lyme disease, Stakeholder analysis, Tick-borne disease

Number of pages: 119

Publication year: 2014

Degree date: 2014

School code: 0153

Source: DAI-B 76/05(E), Nov 2015

Place of publication: Ann Arbor

Country of publication: United States

ISBN: 9781321435641

Advisor: Hobbs, Suzanne

Committee member: Greene, Sandra, Weiner, Bryan, Paul, John E., Herman-Giddens, Marcia

University/institution: The University of North Carolina at Chapel Hill

Department: Health Policy and Management

University location: United States -- North Carolina

Degree: Dr.P.H.

Source type: Dissertations & Theses

Language: English

Document type: Dissertation/Thesis

Dissertation/thesis number: 3668465

ProQuest document ID: 1648168674

Document URL:

<http://libproxy.lib.unc.edu/login?url=http://search.proquest.com/docview/1648168674?accountid=14244>

Copyright: Copyright ProQuest, UMI Dissertations Publishing 2014

Database: ProQuest Dissertations & Theses Full Text

Contact ProQuest

Copyright © 2015 ProQuest LLC. All rights reserved. - [Terms and Conditions](#)