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Author: Ms. Annie Martin
Ecole Polytechnique de Montreal, Canada

Dr. Pascal Michel
Public Health Agency of Canada, Canada
Ms. Anne-Marie Lan Phan
Canadian Space Agency, Canada
Mr. Jean-Marc Chouinard
Canadian Space Agency, Canada
Ms. Christine Lemieux
Canadian Space Agency, Canada

SPACE APPLICATIONS TO IMPROVE PUBLIC HEALTH: CANADIAN CONTRIBUTIONS TO THE
UNITED NATIONS ACTION TEAM 6 ON IMPROVING PUBLIC HEALTH

Abstract

Introduction: There are three broad areas of space technology with direct operational applications and possible significant benefits to public health: satellite communication, global positioning systems and remote sensing space technologies. Telehealth and tele-epidemiology will be presented in this paper to illustrate applications of space technology to improve or enhance public health services. It will highlight the drivers and barriers in these fields and will explore possible solutions regarding public health programs and the use of space applications. **Context:** Following the recommendations of UNISPACEIII (1999) on the use of space applications to improve public health services, an Action Team 6 (AT6) was created, co-chaired by Canada and India, to follow-up on measures to improve public health services for telemedicine and for controlling infectious diseases. This paper will summarize a perspective from the Canadian AT6 workgroup, as presented in the technical report tabled during the UNCOPUOS 48th Scientific and Technical Subcommittee meeting. **Methodology:** Observations, technical considerations and experiences were collected and analyzed to present the current state of integration and application of these areas in public health activities and to present a way forward for further development of the inter-disciplinary field of space technology and public health. **Findings:** A notable gap in the operational integration of space technologies within public health organizations is present in most parts of the world. There are sizeable challenges of transdisciplinary collaborations among scientists and organizations with different mandates, but also speaks directly to the need to explicitly frame the integration of space technologies into recognized public health surveillance functions and medical care services. Further development is required in terms of capacity building, involvement of interested organizations in a cross-disciplinary matter and the opportunity to create an international committee. **Conclusion:** Continued development, promotion and implementation of telehealth and tele-epidemiology initiatives are crucial to the delivery of core public health programs, for both developed and developing nations. The engagement, broad applications and direct pertinence in these cross-disciplinary fields are progressively leveraging global effort to break down barriers. Time has come to foster synergies amongst nations and stakeholders to impact public health programs through capacity building, strategic frameworks and technology and data integration.