WORKSHOP INFORMATION

SUNDAY, 26 FEBRUARY

Delegates can choose to attend the 3 hour session (includes 30 minute break) or up to two 1.5 hour sessions. Pre-booking is essential and there are a limited number of spaces available for each workshop. Please follow the link included in your registration confirmation email to book. If you have completed your registration but cannot find the link, please contact the conference secretariat k.russell@elsevier.com.

3 HOUR SESSION (13.30-17.00)

WS1.1
Systematic observation of physical activity using iPad apps for research and practice: iSOPARC and iSOFIT

Workshop Description
Advances in portable electronic technologies have created opportunities to move from conventional paper and pencil data collection methods to using electronic devices for physical activity observations in park and school settings. This two-part workshop focuses on data collection in community settings using the direct observation SOPARC (System for Observing Play and Recreation in Communities) and provides practice for using iSOPARC – an innovative iPad application for collecting and storing SOPARC data. In addition to standard SOPARC data on physical activity (e.g., sedentary, walking, vigorous) and target area physical characteristics (e.g., accessibility, usability, and organization), iSOPARC permits the collection and exportation of photos, and enables the identification, mapping, and spatial area calculation of target areas using the iPad's GPS technology. Data can be stored and organized on the iPad and then easily exported through email thereby enabling efficient multi-site data collection. The presenters have used iSOPARC extensively to assess physical activity settings in communities across North Carolina and elsewhere. Workshop participants will learn the basic operation of iSOPARC and how the application can be used for large and small research projects. They will also be introduced to iSOFIT, a new companion app for use with SOFIT (System for Observing Fitness Instruction Time). Part one of the workshop will focus on the systematic observation approach for data collection on physical activity and area characteristics, followed by an introduction on the use of the iSOPARC application for iPads. Later, participants will be provided with an iPad mini (20 units will be available during the workshop) and taught the basic functions of iSOPARC using video examples of various physical activity settings. Following a brief practice and troubleshooting session, participants will experience real-life data collection using iSOPARC in outdoor settings.

Learning Objectives
As a result of this workshop participants will:

1. Learn how to use the iSOPARC and iSOFIT application on iPads by experiencing hands-on use.
2. Identify the full range of capabilities of the apps for physical activity data collection as well as common challenges and limitations.
3. Understand the resulting data output provided when using the apps.
4. Understand the differences between iSOPARC and iSOFIT and recognize which app is suitable for specific research settings/projects.
5. Share future directions and potential challenges for incorporating iSOPARC and iSOFIT in their research interests.

Interactive Features

Each participant will:

1. Be trained in systematic observation using live demonstrations.
2. Use an iPad mini for the duration of the workshop.
3. Follow along simultaneously with the presenters and be taught how to navigate through the iSOPARC and iSOFIT application.
4. Engage in physical activity by walking to several outdoor target area sites.
5. Perform hands on data collection practice using iSOPARC on their iPad minis.

SESSION 1 (13.30-15.00)

WS1.2

17 years is too long: Strategies for closing the research to practice gap for physical activity in rural schools

While there is an extensive number of evidence-based practices known to increase physical activity in schools, it can take up to 17 years for evidence-based programs and practices to be implemented (Green et al, 2009; Kessler & Glasgow, 2011). This research to practice delay presents a pressing need for strategies that accelerate the implementation of evidence-based practices.

The Rocky Mountain Prevention Research Center has partnered with low-income, rural schools since 1998. Presenters have over 33 years of collective experience building trusting relationships and productive partnerships with schools. Presenters will draw from "Assess. Identify. Make it Happen." (AIM) and the San Luis Valley Physical Education Collaborative (PE Collaborative) to share resources, strategies, and lessons learned in implementing and sustaining evidence-based practices.

AIM is a strategic planning process that helps schools implement environment, policy, and practice features associated with physical activity and healthy eating (Belansky et al, 2013). It has led to the implementation of over 300 evidence-based practices.

The PE Collaborative was a university-community partnership that used a step by step process to plan the San Luis Valley PE Academy, an intervention based on implementing evidence-based practices to improve the quality of PE (Cutforth & Belansky, 2015). It led to increases in instructional quality and moderate to vigorous physical activity (Belansky et al, in press).

Specific workshop topics include:

1. Describing "Assess. Identify. Make it Happen." (AIM) and its impact on rural schools.
2. Describing the PE Collaborative's process to develop a community-driven action plan to translate research into practice
3. Partnering with local public health departments to accelerate translation
4. Connecting implementation of evidence-based practices to school partners' priorities
5. Capitalizing on state and federal mandates to accelerate translation
6. Partnering with foundations to support schools' implementation efforts
7. Developing scalability strategies including on-line resources and AIM modifications

Learning Objectives

1. List 3 strategies for establishing partnerships to translate research into practice.
2. Apply partnership strategies to your own setting and context.
3. Describe how the AIM process can be used to assist schools in implementing evidence-based practices to increase physical activity in schools.
4. List 3 steps from the PE Collaborative process that could be applied to your translation initiatives.

Interactive Features

A combination of lecture, audiovisual, breakout groups, and discussion are planned. We will share resources including memos of understanding, meeting agendas, information about AIMschools.net, menus of best practices for promoting physical activity, and a rubric for implementing high quality PE. Participants will experience a brain booster and then will engage in small group conceptual mapping to reflect on ideas covered during the workshop.

WS1.3

Processing GPS data for active travel research: Using a new toolkit to add transportation attributes

Data from portable GPS recorders has been a key component of physical activity observation for at least a decade (Rodríguez, Brown, & Troped, 2005). Similarly, concepts and methods from transportation planning have been recognized as an important complement active living research (Sallis, Frank, Saelens, & Kraft, 2004). To get the most out of GPS data for physical activity analysis, raw spatial data can be enhanced with the three building blocks of travel analysis: trip, mode, and route. In this workshop, participants will get their hands dirty with real-world data, and learn how to process GPS datasets using a new toolkit (Broach & Dill, 2016).

The workshop is organized as follows:

1. Brief introduction and orientation from presenters, geared toward public health researchers less familiar with transportation planning concepts and methods (15 mins)
2. GPS data processing group exercise (35 mins)
3. GPS processing software interactive tutorial and application survey (20 mins
4. Guided discussion and Q & A (15 mins)

LEARNING OBJECTIVES

With an overall goal of better leveraging transportation methods and findings for active living research, by the end of this workshop, participants will be able to:

1. Understand transportation approaches to activity data.
2. Describe the steps in processing raw GPS data into spatial information for analysis.
3. Apply a software tool to process GPS and accelerometer data.
4. Evaluate different GPS data collection options for a range of analyses.
5. Appraise the quality of GPS processing in completed or proposed research.

INTERACTIVE FEATURES

We feel a conceptual understanding of GPS data processing is essential, in addition to a tutorial in software use. In the workshop, participants will:

1. Work with sample raw GPS data and supporting data in groups of 3-4 people to familiarize themselves with the structure of spatial activity data and the steps needed to process it into meaningful information. With emphasis on the use of transportation planning concepts introduced earlier, each group will work through the steps of GPS data processing. Every participant will leave with their own copy of sample data and instructions for later reference.
2. In groups of 3-4, follow along with an interactive tutorial of GPS data processing software developed by Portland State University. The software automates the process learned in the first exercise, providing an immediate application of the concepts learned. Output from the software will be compared with the group's manual processing results.
3. Keep a running list of questions and ideas from the introduction, exercise, and tutorial to share in a guided discussion with the presenters. This dialogue between public health and transportation planning perspectives can be extremely helpful for sharing methods and generating new questions and analysis ideas.

WS1.4

Analyzing direct observation measurements of physical activity in built environments

Direct observation has been widely applied to measure physical activity in built environments, including parks, greenspaces, trails, sidewalks, and school playgrounds. A notable example is the System of Observing Play and Recreation in Communities (SOPARC), which, to date, has been adopted in more than 30 studies of leisure-time physical activity in neighborhood parks. Direct observation provides a rich set of information of aggregated levels physical activity among groups of people in specific environmental settings. Direct observations are relatively easy to conduct and also reliable. Statistical evidence from direct observation data has been the basis for numerous evaluation studies and exploratory investigations.

Yet there is still great confusion among researchers and users of these data in understanding the meaning of observed quantities and in drawing legitimate inferences from them. The analysis of direct observation data must consider several technical issues, including objectives for estimation, data aggregation, and sample size. Physical activities by groups of people in built environment settings can be seen as a *queueing process*, a model used in operations research and is applicable to the park setting. Queueing describes the process at one or more service stations where customers arrive, obtain service, and depart. The queueing process provides a theoretical basis for describing physical activities in built environment such as park use. Direct observations are usually repeated snapshots of a queue, which form *longitudinal* or *repeated measures* of the underlying queue. The longitudinal data can be analyzed by various regression models for *marginal means*, i.e., means of the queue process at the measurement time.

This workshop will review the basic concepts of the queueing theory, and the format and meaning of longitudinal direct observation data. We will also discuss how to model longitudinal data and consider the implications of sample size in study design and analysis

Learning objectives:

1. To review the basic concepts in queueing theory and measurement of group-level physical activity in built environment settings: total usage and total number of people, observed physical activity level and observed number of people, arrival and departure rate, aggregated data versus microdata. (roughly 25 minutes)
2. To review the generalized longitudinal regression method for direct observation data with two examples: one simple example as an interactive practice and one example using real data (roughly 50 minutes)
3. To briefly discuss statistical design issues in intervention evaluation research (roughly 15 minutes) and present a design example as an interactive practice.

Interactive features: We propose to involve attendees by working on two simple examples: one on a simple comparison using observation data, and one on design of observation schedules.

WS1.5

Applying citizen science techniques to translate physical activity resource measurement from research to practice

Access to high quality physical activity (PA) resources (e.g., parks, gyms) is associated with increased PA in diverse populations and provides a buffer against lower socioeconomic neighborhood conditions. Citizen science, the collection and application of data by community-based practitioners and the general public, has the potential to empower communities to measure resources, determine needs for improvement and provide meaningful information to funders and policy makers to improve access to quality resources.[4] The PA Resource Assessment instrument (PARA, ©2010)[5] has demonstrated reliability and validity in research in North America and has been widely disseminated in the US for communities to apply to grass roots efforts to improve health equity through active living. This workshop will provide practical training on using the PARA to assess resource amenities, features, incivilities and qualities, and provide a real-world example of adapting the PARA for practical use.

Learning Objectives

1. Understand how to apply citizen science techniques to measure PA resources.
2. Learn how to measure PA resources using the PARA.
3. Consider how citizen science techniques can improve health equity in underserved communities.

Interactive Features

After a brief historical overview of the PARA and description of how bidirectional knowledge translation can occur between researchers and practitioners using citizen science, attendees will engage in interactive classroom and guided field training by expert trainers to measure Pier 60 Park with the PARA. They will debrief about their experience and potential adaptations needed to tailor the PARA for use in their own community guided by examples from a participatory research project focused on developing a family-centered diabetes prevention program for obese Latino youth. Attendees will break into small groups to discuss emerging projects that can adapt the PARA for their own use. Attendees will receive a "citizen science toolkit" that can be reproduced and disseminated in their own communities.

WS1.6

Inclusive Community Health Implementation Package (ICHIP) Assessment and Planning Workshop

The ICHIP workshop will present a comprehensive set of tools and resources for implementing active living initiatives at the local level that are inclusive of all members of a community across the lifespan. The workshop will focus on 2 main parts of the package, which is an assessment tool and a resource/planning tool. The Community Health Inclusion Index (CHII) (Eisenberg et al., 2015) is a valid and reliable instrument for assessing the degree to which a community's active living resources are inclusive of individuals with disabilities. The Guidelines Recommendations and Adaptations Including Disability (GRAIDS)(Rimmer et al., 2014) is a resource for communities to identify improvements to inclusion that can be used to develop local community health action plans. Both tools operate at multiple levels and across 5 sectors of schools, worksites, healthcare, community institutions/organization and the community-at-large. After a short background on the tools and their development, participants will have the opportunity to use the tools (hands-on) to conduct an observational assessment of the hotel's physical activity areas as well as areas outside the hotel and connect results to resources.

Learning Objectives

1. Describe the process used to improve inclusive policy, systems, and environment changes for individuals with disabilities.
2. Define promising practices and strategies for developing inclusive healthy communities.
3. Utilize tools and resources to make active living initiative inclusive of all members of a community.
4. Interpret results of the CHII and connect to resources (GRAIDs) to develop inclusive community health action plans.

Interactive Features

Participants will utilize paper and digital surveys to conduct an observational assessment of the accessibility of physical activity spaces in and around the hotel. The assessment will require the use of specific tools to measure ADA accessibility. Participants will spend time assessing the fitness center, the pool, and the built environment around the hotel, such as the sidewalks, transit stops and intersections. Participants will then utilize a web-based tool for connecting results of the assessment to resources (GRAIDs) that can be used to improve the accessibility for individuals with disabilities across the lifespan.

SESSION 2 (15.30-17.00)

WS2.1

Community severance: The effects of busy roads on local communities and residents

Participants will learn what community severance from busy roads is; what we know - and what we do not yet know - about it; and why it is important for active living. Younger and older residents, and those from more disadvantaged communities, are particularly affected. At the end of the workshop, we will present (briefly) our Street Mobility and Network Accessibility project (www.ucl.ac.uk/street-mobility) and introduce the participants to the suite of tools we have developed. All of our new tools are intended for use by practitioners and researchers; two of the tools are also designed to be usable by local communities themselves.

Learning Objectives

By the end of this 1.5hr workshop, participants should be able to:

1. Explain what community severance is;
2. Discuss the potential impacts of busy roads on health and wellbeing and health-relevant behaviours of local residents;
3. Discuss the potential impacts of busy roads on health inequalities (disparities); and
4. Describe to a colleague where to find tools to measure community severance.

Interactive Features

The workshop will be run in sections, to meet the four objectives. For each of the first three, participants will discuss the question / issues in small groups and then, for objectives 2 and 3, in larger group discussions, each ending with a 5 minute presentation. After the final presentation, on our project and toolkit, participants with a computer will be able to explore the tools themselves.

WS2.2

Telling the story of active travel across the life span using body-worn accelerometer data

Active travel to work or school, both for complete journeys and for travel to and from public transport stops, has been shown to contribute to increased physical activity (PA). Body-worn accelerometers have been used to objectively quantify both steps and time in moderate and vigorous physical activities (MVPA) in free-living populations. However, accelerometers are typically poor at detecting cycling activities (an important contributor to active travel) and can generate spurious activity counts from vehicle travel. We need to understand the relative contributions of these common modes of travel to inform the interventions we develop to promote healthier travel choices to school and work.

The goal of this workshop is to demonstrate how we can derive detailed information on active travel (walking and cycling) and car and other transportation, from body-worn accelerometers and how we can quantify the role active travel plays in overall levels of PA across the life span. Using data drawn from different populations, participants will learn how the activities of cycling and car travel, in addition to stepping, can be derived from body-worn accelerometer data and how the analysis of the volumes and patterns of these activities can be used to determine the impact of active travel on daily physical activity.

Participants will be divided into groups and given data sets from populations who use different modes of transport in their commute to work and school. Each group will analyse the data and produce summary outcomes on the volumes and patterns of these activities. This will be used to describe the "active travel story". A discussion will focus on what additional information the classification of cycling, car and other transport might provide and the contribution of the mode of travel to the accumulation of PA and its intensity. The workshop will end with a description of how we can integrate this approach into a model of Physical Behaviour.

Learning Objectives

1. Attendees will recognize how data derived from body-worn accelerometer sensors can be used to answer specific research questions and understand the methodological advantages and limitations of them in order to develop valid experimental procedures.
2. Attendees will be able to construct context rich models of Physical Behaviour, which include cycling and car travel.
3. Using event-based analysis of accelerometer, attendees will understand how to construct contextually rich data sets relevant to transportation and health interests.

Interactive Features

1. Structured discussion on the importance of active travel in meeting PA guidelines.
2. Group led analysis of sample data to show how we can derive contextual information about cycling and car travel from accelerometer data.
3. Group working to interpret data from different populations. The groups will produce "active travel stories" from these sample data sets.

WS2.3

The art of implementation: How partnership and collaboration is advancing physical activity in out-of-school time

Built on a continuous improvement model, the Healthy Out-of-School Time (OST) movement has been gaining momentum since 2010 when healthy eating and physical activity (HEPA) quality standards for OST programs were developed. OST plays a key role in promoting physical activity among school-age youth and a pathway for encouraging healthy role modeling among site staff and families. Much of this effort has been driven through partnership, collaboration and resource sharing.

Accelerated through Partnership for a Healthier America commitments by Y USA, the Boys and Girls Clubs of America and National Recreation and Park Association, the movement has entered into a new phase of evolution. In the spring of 2016, the Centers for Disease Control and Prevention awarded two five-year grants to the Alliance for a Healthier Generation and the Boys and Girls Clubs of America to focus on increasing opportunities for physical activity at school-based afterschool sites.

Recent evaluations have described the implementation of the HEPA standards, highlighting the importance of context-specific staff trainings and resources for local-level adoption. These insights give us a sense of what is working and what improvements are needed. Exploring the art of implementation can provide practice-based recommendations for staff, family and community engagement.

Learning Objectives

Following the workshop, attendees will:

1. Understand the value of national physical activity standards in OST settings and challenges of rolling out national standards in local context
2. Identify technical assistance techniques that engage organizations like Boys and Girls Clubs and recreation agencies in helping children become more physically active
3. Identify how local, regional and national partnerships can link community programs and schools for increased return-on-investment
4. Discuss techniques for engaging youth and early-adopters to build momentum

Interactive Features

1. The workshop will begin with an active icebreaker to allow participants to share the relevancy of this topic to their own work.
2. Participants will work as small teams to explore key challenges and engage in an active report-out.
3. Attendees will have the opportunity to share their own best practices to be included in a future Healthy Out-of-School Time blog article.

WS2.4

Turning community members into advocates: How to tailor, lead, and share walk audits for diverse communities

Walk audits are valuable tools that allow stakeholders to document barriers to physical activity and healthy eating. However, existing tools may not be accessible for the most marginalized or vulnerable in communities. This workshop will train practitioners to adapt existing walk audit tools to involve diverse stakeholders across the life-course and influence policy and practice.

Timeline:

1. *Introduction (10 minutes)*: Participants will draw their built environment, and then draw a "healthier" version. They will introduce themselves, commenting on the differences between the two drawings.
2. *Walk Audit Overview (5 minutes)*: Overview of the aspects of community design that walk audits can assess, e.g. access to healthy food and roads that accommodate pedestrians, bicycles, and transit
3. *Walk Audit Tools (7 minutes)*: Overview of survey tools from AARP, the U.S. Centers for Disease Control and Prevention, and the Consortium to Lower Obesity in Chicago Children
4. *Planning an Audit Route: Why, Who, When, and Where (10 minutes)*: Participants will be given a scenario and practice planning a walk audit. They will work in groups to identify the goal of the activity; identify their population of interest and participants; discuss the best timing for the audits; and create practice maps.
5. *Adapting Walk Audit Tools (10 minutes)*: Participants will tailor sections of each survey tool. They will discuss their participants' age, reading level, and English proficiency. They will also consider which portions of each tool will be most useful.
6. *Practice Walk Audit (25 minutes)*: Participants will use their adapted tools to assess the built environment at a nearby intersection or block.
7. *Mapping Activity (15 minutes)*: Participants will summarize their findings in small groups by drawing posters of the area, barriers, and possible solutions.
8. *From Data to Advocacy (5 minutes)*: The facilitator will present ways to translate these results into advocacy tools like policy memos, press releases, and community briefings.
9. *Closing (3 minutes)*: Participants will ask final questions and evaluate the workshop.

Learning Objectives:

Participants will be able to:

1. Tailor several walk audit survey tools to community needs.
2. Plan a walk audit route that engages participants over the lifespan.
3. Lead a walk audit mapping summary activity.

Interactive features:

Participants will be engaged in activities for 70 of the 90 minutes. These activities include: drawing for the Introduction and Mapping Activity; small group discussions for Planning an Audit Route and Adapting Walk Audit Survey Tools; and physical activity for the Practice Walk Audit.

WS2.5

Objective tools for planning - equity, healthy eating and active living

With more than one-third of American adults obese, there is a significant burden of chronic disease in this country. Certain demographic groups and geographic locations have higher rates of obesity and chronic diseases. There has been a strong movement to address healthy eating and physical activity through policy, systems and environmental changes. While there are many tools and checklists to address healthy community design, many of these resources provide only a general approach, one that does not factor the local context for a specific community.

This session will introduce participants to an objective approach to identify equity priority areas and assess the retail food environment, parks and open space, and active transportation options. This approach was applied as part of Plan4Health, a Centers for Disease Control and Prevention-funded partnership with the American Planning Association (APA) and the American Public Health Association.

The objective tools shared at this session enable planners to scan for equity considerations in the built environment in a community and identify equity priority areas where efforts should be focused to improve health outcomes. Addressing health and equity requires consideration of the social determinants of health and the environment where people live, learn, and work. The tools provide a measure that can be assessed over time to monitor progress related to the creation of healthy food environments and active living opportunities. Session participants will view an application of these tools for integrating health, with a focus on equity, in the language of the comprehensive plan updates for a city and county in Delaware.

Learning Objectives

At the end of this session, participations will:

1. Discuss the importance of addressing health and equity to increase opportunities for healthy eating and active living in the built environment.
2. Learn about an objective approach and tool that can be applied to identify equity priorities for addressing healthy food access and active living.
3. Demonstrate an application of the tool to identify and assess equity priorities in a given community.

Interactive Features

This session will begin with an interactive ice breaker for the speakers to familiarize themselves with the session participants. During the session, there will be small group exercises and group polling. In addition, speakers will engage participants in an assessment and mapping exercise for a hypothetical community. Participants will have the opportunity to discuss the process and experience in applying the tools. Participants will have the opportunity to ask questions and share experiences related to the topics discussed.