# The iPad® Computer-Assisted Personal Interview System – A Revolution for In-Person Data Capture?

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# Presentation Outline

- iPad® Computer-Assisted Personal Interview (iCAPI) System
- iCAPI in the Field
- iCAPI Evaluating Results/Project Takeaways
- Is iCAPI Right for Your Project?
- Looking Ahead

# iPad® Computer-Assisted Personal Interview System (iCAPI)

- iCAPI (i·kap·e), *n.*
  - An iPad® data collection tool that replaces traditional pencil and paper methods

- Potential Advantages
  - No printing costs
  - No data entry/scanning
  - Improved data quality
  - GPS navigation capabilities
  - Real time quota tracking
  - Increased data security

- Anticipated Challenges
  - Field viability (ex: battery life, weather conditions, etc.)
  - Increased interview time
  - Increased programming time
  - Training
  - Device security
  - Connectivity

# iCAPI In the Field

- Fisheries Pilot Tests
  - Large-scale intercept survey of recreational saltwater anglers
  - Beaches, docks, marinas
- Pennsylvania Water Trails Survey
  - Economic impact study of designated Water Trails
  - River access points
- Context Scan Study (Pricing Component)
  - Observation of geographic access to specific food and promotion of healthy and less healthy foods
  - Grocery stores and convenience stores

# Pilot Tests – Fisheries Intercept

**Goal -** Determine feasibility of iCAPI for large-scale fisheries intercept survey, including suitability for field conditions, impact on data quality, and cost.

## Pilot Test Phase I: Observational Data

- Tested – Functionality
- Data collected
  - Fishing site descriptions
  - Vessel observations
- 1st Generation iPad ®
- Web-based survey, SPSS Dimensions

## Pilot Test Phase II: Catch Data

- Tested - Productivity (Cost)
  - Interviews per assignment
- Data collected
  - Selecting fish species
  - Recording number of fish
  - Recording weights/lengths
  - Grouped catch
- 1st Generation iPad ®
- Custom Apple app

# Pennsylvania Water Trails Economic Impact Study

**Goal -** Estimate the direct, indirect and induced economic impact of water trail visitors on Pennsylvania's economy.

**Method -** Expenditure survey conducted through intercept interviews at randomly selected access sites.

- 6 weeks of data collection during summer months
- Remote, rural and urban locations

**Mode -** In-person interviews using iCAPI data collection via a customized application with 2nd generation iPads®.

- 7 iCAPI local interviewers
- Collected 350 in-person interviews

# Context Scan Study – Pricing Component


**Goal –** Assess the availability, pricing and promotion of healthy/less healthy food items

**Method** – Observation at 450 sampled grocery and convenience stores.

- 15 awardee communities in the National Evaluation of CDC's Community Transformation Grant Program
- 30 stores per community (12 grocery, 18 convenience)
- 15 weeks of data collection
- Remote, rural and urban locations

**Mode -** In-person observation using iCAPI data collection via Askia Software application with 2nd generation iPads®.

# Evaluating Results


## Quantitative – Fisheries Pilots

iPad® performed as well or better than paper:

- Interviews per assignment
- Recording number of fish
- Recording fish length and weight
- Number of errors

## Qualitative – All Projects

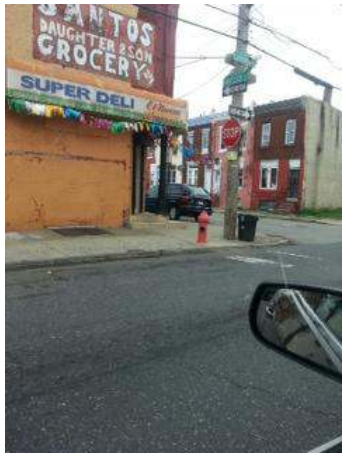
Praise for the iPad®

- Easy to use
- Ability to withstand field conditions

Criticism of iPad®

- Glare
- Speed
- Difficulty holding the iPad®
- Typing

# iCAPI Project Takeaways - Benefits




- Performance
  - Demonstrated field durability
  - Instant data transfer
    - Secure data storage if connection is lost
  - Improved communication and navigation in the field
  - Efficient supervision of staff with real-time communication, iPad® tracking
  - Staff enthusiasm
- Improved data quality
  - Survey program reduced interviewer error
- Project cost savings
  - Printing/postage costs (also greener!)
  - Data entry costs
  - Staff time to investigate and resolve possible errors

# iCAPI Project Takeaways - Drawbacks

- Project cost
  - Initial cost of iPads® and accessories
  - Data plan for 3G connectivity
  - Programming
- Hardware limitations
  - Glare
  - Typing

# Is iCAPI Right for Your Project?

- iCAPI cost effectiveness ultimately depends on layers of scale
  - Project scope
  - iPad® survey development and programming
  - Timeline of future iCAPI projects
- Geographic location and connectivity can be a driver for iCAPI survey design
  - Web-based survey vs. custom application
  - Survey environment
  - Data Plan vs. Wi-Fi
- Intangibles
  - Will an interviewer with an iPad® increase respondent curiosity/response rate?
  - Will green technology appeal?
  - Increase interviewer engagement?

# Looking Ahead – Rapidly Changing Market

- Hardware
  - Cheaper tablets and tablet technology has become available
  - Does the depreciation of the iPad® or other tablet technology present a cost-prohibitive driver for expanded use?
- Software
  - Will off-the-shelf survey development software provide capability to design effective, tailored instruments?
  - Programming across a large variety of hardware - Apple vs. Android

# Questions?

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