Flow Chart for Data Collection Instruments
1) Los Angeles County MUH Operator Survey
(Note - requires 3 data collection tools: telephone screening interview for recruitment ; Phase 1 and Phase 2 MUH Operator Survey administered in person by Los Angeles County – based Field Data Collectors hired and trained by Study Team.)

LA MUH Operator Survey Tool	**Collect Data Using the LA MUH Operator Survey Tools**	**Analysis of LA MUH Operator Survey Data**
Review Roswell Park Institute MUH Operator Survey, BRFSS, NHANES, CA Health Information Survey and other published research on implementation of smoke-free policies for additional survey questions; review Healthy Homes Inspector Manual and other published research for visual assessment tools; identify and define variables.	Recruit and collect data from 260 respondents (Administer screening interview before Phase 1 & 2; administer Phase 1 Survey instrument at first visit; administer Phase 2 Survey 6-9 months later.)	Compare Phase 1 & 2 MUH Operator Survey data results to characterize MUH operators' plans for policy implementation and describe their assessment of costs, challenges and strategies pre- and post-implementation of the policy.
Draft 2 LA MUH Operator Surveys (Phase 1 =pre-implementation; Phase 2 = post-implementation), screening interview, and data collection protocols.	Enter data.	Correlate visual observations with survey data collected at Phase 1 & 2
	Clean data.	Compare LA MUH Operator Survey Phase 1 & 2 results to LA MUH Resident Survey Phase 1 & 2 results.
Pilot test.	Create weights.	Identify intervening factors that may affect policy implementation.
Finalize the Phase 1 & 2 LA MUH Operator Surveys, screening interview, and data collection protocols.	Finalize dataset for analysis.	Characterize the impact of smoke-free MUH policies on operations and management of MUH, including costs of implementation.
Develop training materials and train Field Data Collectors.		Characterize the impact of smoke-free MUH policies on MUH residents' exposure to secondhand smoke (SHS).

2) LA MUH Resident Survey

(Note: - requires 3 data collection tools: in-person screening interview for recruitment; Phase 1 and Phase 2 MUH Resident Surveys administered in the residents' homes by Los Angeles County – based bilingual Field Data Collectors hired and trained by Study Team.)

LA MUH Resident Survey Tool

Review Roswell Park Institute MUH Resident Survey Review Roswell Park Institute MUH Operator Survey, BRFSS, NHANES, CA Health Information Survey and other published research for additional survey questions; review Healthy Homes Inspector Manual and other published research for visual assessment tools; identify and define variables.

Draft 2 LA MUH Resident Surveys (Phase 1 =pre-implementation; Phase 2 = post-implementation), screening interview, and data collection protocols.

Pilot test.

Finalize the Phase 1 & 2 LA MUH Resident Surveys, screening interview, and data collection protocols. Translate Survey into Spanish.

Develop training materials and train Field Data Collectors.

Collect Data Using the LA MUH Resident Survey Tool

Recruit via screening interview, obtain consent, and collect data from 1000 adult non-smoking respondents (Administer screening interview and Phase 1 Survey instrument at first visit; administer Phase 2 Survey 6-9 months later.)

Enter data.

Clean data.

Create weights.

Finalize dataset for analysis.

Analysis of LA MUH Resident Survey Data

Compare Phase 1 and 2 LA MUH Resident Survey data to characterize MUH residents' smoking and health status; describe their attitudes, knowledge, and behavior regarding exposure to secondhand smoke (SHS) and compliance with smoke-free MUH policies.

Correlate visual observations with survey data collected at Phase 1 & 2.

Compare LA MUH Resident Survey Phase 1 & 2 results to other available cost data.

Identify intervening factors that may affect policy implementation, exposure to SHS, and other factors.

Characterize the impact of smoke-free MUH policies on MUH residents' exposure to SHS.

3) LA MUH Resident Saliva Cotinine Samples

LA Cotinine Sampling Protocol

Review and adapt NHANES protocol previously used for saliva cotinine samples for Los Angeles County.

Note that this protocol will not be piloted since it has recently been piloted and used for NHANES data collection in LA County.

Contract for laboratory data analysis and assure chain of custody for samples. Assure appropriate storage conditions for samples.

Develop training materials and train Field Data Collectors.

Collect Saliva Cotinine Samples

Obtain permission and collect samples from a maximum of 1500 respondents (1,000 adults and up to 500 children under age 18). Samples to be collected at the same time as Phase 1 LA MUH Resident Survey; samples collected again at the time of Phase 2 LA MUH Resident Survey.

Laboratory analyzes samples.

Enter data.

Clean data.

Apply weighting factors.

Finalize dataset for analysis.

Analysis of LA MUH Resident Saliva Cotinine Data

Characterize MUH Residents exposure to secondhand smoke (SHS) at Phase 1 & 2 as measured by saliva cotinine levels.

Identify intervening factors that may affect exposure to SHS using Phase 1 & 2 LA MUH Resident Survey data and visual observations.

Incorporate this analysis in the study reports that characterize the impact of smoke-free MUH policies on MUH residents' exposure to secondhand smoke (SHS).

4) LA MUH Resident Apartment Indoor Air Quality (IAQ) Monitoring

LA IAQ Protocol	**Collect IAQ Data**	**Analysis of LA MUH Resident Saliva Cotinine Data**
Review and adapt IAQ protocol previously developed by Dr. Neil Klepseis for Los Angeles County. This includes installing monitoring equipment in the main living area and instructing residents on the use of a Household Diary to record tobacco smoke odor, time spent at home, cooking and cleaning activities, and other particle-generating activities.	Randomly select a maximum of 200 apartments from the households enrolled for the LA MUH Resident Survey Phase 1. Collect IAQ data at Phase 1 for 7 days. Collect IAQ 7-day data at the same units during Phase 2 LA MUH Resident Survey data collection.	Characterize MUH residents' exposure to secondhand smoke (SHS) as measured by Phase 1 & 2 IAQ monitoring data and Household Diary data.
Note that this protocol will not be piloted since it has recently been piloted and used for data collection in LA County.	Enter Phase 1 & 2 IAQ monitoring and Household Diary data.	Identify intervening factors that may affect exposure to SHS using Phase 1 & 2 LA MUH Household IAQ diaries, measures of ambient air quality, Phase 1 & 2 LA MUH Resident Surveys, and visual observations.
Contract for data analysis and assure chain of custody for samples. Assure appropriate storage conditions for samples.	Clean data. Create weights. Finalize dataset for analysis.	Include this analysis in the study reports that characterize the impact of smoke-free MUH policies on MUH residents' exposure to secondhand smoke (SHS).
Develop training materials and train Field Data Collectors.		

5) Minnesota, Maine, and Florida MUH Operator Survey (Administered by Project Team staff)

MN, ME, & FL MUH Operator Survey Tool	Collect MN, ME, & FL MUH Operator Data Using the Modified Phase 2 LA MUH Operator Survey Tool	Analysis of MN, ME, & FL MUH Operator Survey Data
Develop the LA MUH Operator Survey Phase 2 tool as per 1) above. Pilot test the LA MUH Operator Survey Phase 2 as per 1) above. Finalize the LA MUH Operator Survey Phase 2 as per 1) above. Make minor modifications as needed to reflect issues as appropriate to MN, ME, & FL. Train staff to administer.	Recruit, obtain consent, and collect data from 12 respondents (4 each in MN, ME, and FL, collected once). Enter data. Clean data. Finalize dataset for analysis.	Characterize MN, ME, & FL MUH operators' experience post-policy implementation; describe their assessment of costs, challenges and strategies for pre- and post-implementation of the policy. Correlate visual observations with survey data collected. Compare MN, ME, & FL MUH Operator Survey results to MN, ME, & FL MUH Resident Focus Group responses. Identify intervening factors that may affect policy implementation Characterize the impact of smoke-free MUH policies on operations and management of MUH, including costs of implementation. Characterize the impact of voluntary and regulatory smoke-free MUH policies on MUH residents' exposure to secondhand smoke (SHS).

6) **Minnesota, Maine, and Florida MUH Resident Focus Groups** (Note - this requires 4 instruments: telephone screening interview to assign residents to focus groups; short written demographic and attitudinal questionnaire for focus group participants, and 2 focus group question guides (one on residents' involvement in policy development and implementation; one on policy compliance) . All instruments administered by Project Team Staff.)

MN, ME, & FL MUH Focus Group Instruments	**Collect MN, ME, & FL MUH Resident Focus Group Data**	**Analysis of MN, ME, and FL MUH Resident Focus Group Data**
Develop and pilot the LA MUH Resident Survey Phase 2 tool as per 2) above. Use this as a basis for developing a screening interview for assignment to focus groups. Develop a short written questionnaire for focus group participants. Develop focus group question guides.	Recruit focus group participants (4 groups each in MN, ME, and FL, 10 residents per group).	Use MN, ME, & FL MUH Resident Focus Group results to describe residents' attitudes, knowledge, and behavior regarding exposure to secondhand smoke (SHS) and compliance with smoke-free MUH policies.
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There will be no pilot test of these instruments.	Administer screening interview by phone to assign participants to appropriate focus group.	Compare to visual observations and MUH Operator Surveys in MN, ME, & FL.
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Make minor modifications as needed to reflect issues as appropriate to MN, ME, & FL.	Obtain consent, provide and collect short self-administered questionnaire to focus group participants at the beginning of the focus group session	Identify intervening factors that may affect policy implementation, exposure to SHS, and health status from short questionnaires.
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Train staff to administer screening interview & short questionnaire and serve as facilitator/note taker at focus group.	Conduct focus group using the focus group question guides. Audio-record participants' responses.	Characterize the impact of smoke-free MUH policies on MUH residents' exposure to SHS and their willingness to comply with those policies. Identify factors that facilitate or act as barriers to implementation. Identify strategies to expedite policy implementation in other communities.
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	Transcribe focus group recordings.	
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	Enter data.	
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	Clean data.	