APPENDICES

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Appendix A. Step-by-Step Procedures for Sample Selection Procedures

A. Spatial Join of Parcel Address Points and Census Blocks (ArcGIS 9.2)

In ArcGIS
1) Add census polygon layer: U_CoB_y2kblockpoly layer
2) Add parcel point address layer: U_LA_CoB_addr_ppop_pt
3) Highlight parcel point address layer and join the census layer to it
4) Name the output file "blks_address_land_use" in the sample selection folder
5) Save file as cluster_sample.mxd

B. Universe of Blocks and Address Points for Sample Selection

In Excel
6) Open the "blks_address_land_use.dbf" file (created in step 4) in Excel
7) Save the fields for
   location ID = LOCATION_I
   parcel ID = PARCEL_ID
   full address with apt = FULL_ADDR
   use code = USE_CODE
   use description = USE_DESC
   block fips = BLOCKFIPS
8) Save files as "blks_address_land_use.txt"

In Word with run cluster_sample.do
9) Select census tracts of interest or do nothing for citywide selection

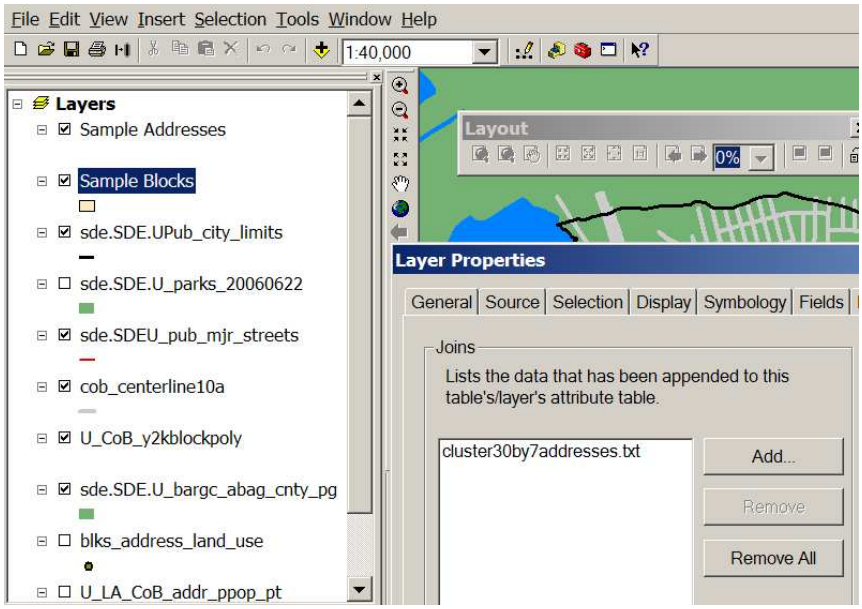
In Stata,
10) execute run cluster_sample.do (statistical output is in `cluster_sample2008.doc` and sample blocks with households to sample are in "cluster30by7addresses.txt")

D. Visualize Output and Create Maps for Team Assignments (In ArcGIS 9.3)

11. Add base map elements to map in step 1 (saved in step 8)

Streets: cob_centerline10a
Major Streets: sde.SDEU_pub_mjr_streets.shp
City/County areas: sde.SDE.U_bargc_abag_cnty_pg
City boundaries: sde.SDE.UPub_city_limits.shp

12. to visualize sample blocks, join census blocks U_CoB_y2kblockpoly to sample blocks (cluster30by7addresses.txt) on block fips; label with the blockID number



13. to visualize sample addresses/households, join census blocks "blks_address_land_use" to sample blocks (cluster30by7addresses.txt) on location ID; label with full_address

To generate an overall map of sample blocks

14. Use entire city as the full extent. Turn off labels for centerline and sample address points, turn on labels for major streets, and save map as cluster_sample.mxd

To generate maps of individual blocks to assign to survey teams

15. Create copy of cluster_sample.mxd

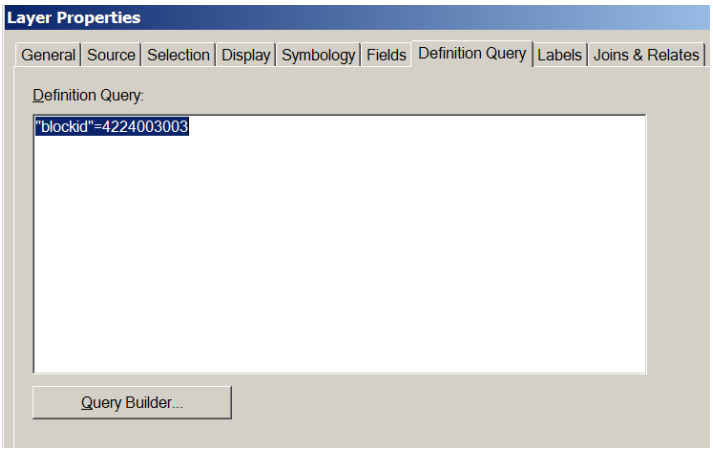
16. Highlight Sample Blocks layer, copy and paste

17. Change layer name to block ID, and click layer on and other block layers off

18. Move layer to below sample block layer

19. Click properties, Definition Query tab: "blockid"=blockidnumber

blockid numbers are listed in STATA output cluster_sample.doc



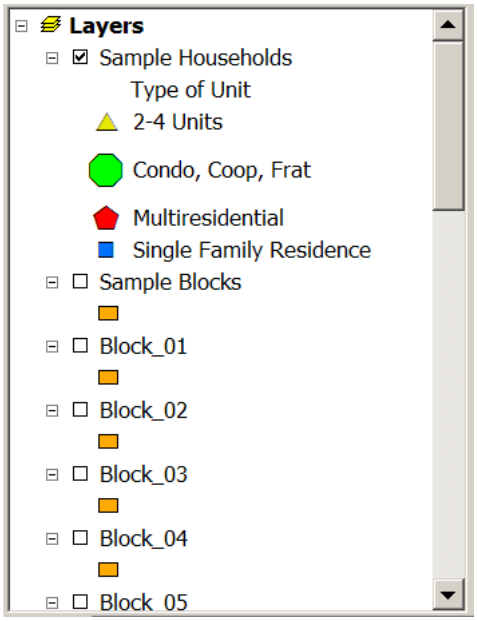
20. Change block label using expression "Block " &[cluster_no]

21. Set map scale to 1:40,000 to locate block

22. Use magnifier tool , draw a rectangle around sample block and include major street

23. Adjust map scale to

Note: some address names and parcel address points overlap and will not be shown on map; Interview must have a complete list of parcel addresses.



24. Change title of map to match block number

25. Cut and paste (from Excel cluster30by7addresses.xls) into map document

26. Print to pdf file (Block_01.pdf)

27. repeat steps 16-26 for rest of 30 blocks

1 "blockid" = 4211001006
2 "blockid" = 4212004004
3 "blockid" = 4213003008
4 "blockid" = 4215002001
5 "blockid" = 4216002003
6 "blockid" = 4217001007
7 "blockid" = 4218001003
8 "blockid" = 4219002010
9 "blockid" = 4221001004
10 "blockid" = 4222002002
11 "blockid" = 4223001009
12 "blockid" = 4224001003
13 "blockid" = 4224003003
14 "blockid" = 4225003001
15 "blockid" = 4227003004
16 "blockid" = 4228003008
17 "blockid" = 4230001000
18 "blockid" = 4230003000
19 "blockid" = 4231002003
20 "blockid" = 4232002001
21 "blockid" = 4233002015
22 "blockid" = 4234003002
23 "blockid" = 4235001007
24 "blockid" = 4236011008
25 "blockid" = 4236021002
26 "blockid" = 4236022002
27 "blockid" = 4237002013
28 "blockid" = 4238003008
29 "blockid" = 4239021007
30 "blockid" = 4240013008

B. STATA batch file for sampling households from a municipal parcel database

```
* cluster_sample2008.do - 6/11/07 - Neil Maizlish
* Analyzes Parcel and address points, Berkeley, 2006
* and selects a cluster sample of 30 Berkeley blocks and 7 residential
housing
* units/block (N=210)

* Output is comma delimited file of FIPS block IDs, addresses, and housing
unit
* description for housing units included in sample.
* Clusters (blocks) are selected PPS using a systematic sample and housing
units
* within blocks are chosen with equal probability (simple random sample)

* Blocks with 0 residential housing units are excluded
* user can select by approximate city council district(s) or census tract(s)

* Data sources for sample frame is address points of parcels for City/County
* (tax) assessor for 2006

program define title1
 display "PHD" _col(40) "Analysis Date: " "$S_DATE"  _newline
 display "Parcels, Address Points, and Cluster Sampling, Berkeley, 6/30/2008"
end

set more off
set memory 10M
* set memory 768000
set matsize 800
set logtype text
* Log of data transformations
log using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\cluster_sample2008.doc, replace
title1
log off

* You must have already spatially joined the parcel database with the Census
* 2000 blocks database, and exported the file

* 1) Add census polygon layer: U_CoB_y2kblockpoly layer
* 2) Add parcel point address layer: U_LA_CoB_addr_ppop_pt
* 3) Highlight parcel point address layer and join the census layer to it
* 4) name the output file "blks_address_land_use" in the sample selection
folder
* 5) Open the "blks_address_land_use.dbf" file in Excel
* 6) Save the fields for
*    location ID = LOCATION_I
*    parcel ID =   PARCEL_ID
*    full address with apt = FULL_ADDR
*    use code = USE_CODE
*    use description = USE_DESC
*    block fips = BLOCKFIPS
* 7) Save files as "blks_address_land_use.txt"

* read address points with Block fips identifier
```

```
insheet using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\blks_address_land_use.txt,
names
format %20.0g  blockfips

* Harmonize names
rename location_i loc_id_in
rename full_addr f_add
rename parcel_id prcl_id_in

* total number of locator ids
count

* keep addresses with residential use codes
keep if (use_code == 7) | (use_code >=11 & use_code <=17) | (use_code >=19 &
use_code <=29) | (use_code >= 71 & use_code<=79) | (use_code== 87)

* Last 10 digits of FIPS
replace blockfips = blockfips - 60010000000000

sort blockfips
save blks_address_land_use.dta, replace

count
log on
tab1 use_code
log off

collapse (count) loc_id_in, by(blockfips)

* Prepare file for merging
rename loc_id_in hu_cob
sort blockfips
save block_fips_cob.dta, replace

* Create Census tract
generate ct = blockfips/1000000
replace ct = round(ct,0.01)

* Select a Cluster Sample Proportional to Size (Number of Housing Units)
* using COB Address Points for Housing Units

* Drop blocks with no or missing number of residential housing units
* See residential use codes above
drop if hu_cob == 0 | hu_cob == .

* Select Geographic Area of Interest
* By A) Approximate Council District or B) Specific Census Tract(s)

* Create districts from census tracts (approximate)
* District 1
generate district = 1 if ct >= 4219 & ct <= 4223
* District 2
replace district = 2 if ct >= 4231 & ct <= 4233 | round(ct,.01)==4240.02
* District 3
replace district = 3  if ct == 4234 | ct == 4235 | round(ct,.01)==4240.01 |
round(ct,.01)==4239.01
* District 4
```

```
replace district = 4  if ct == 4224 | ct ==4230 | ct==4229
* District 5
replace district = 5  if ct >=4212 & ct <=4214 | ct==4217 | ct==4218
* District 6
replace district = 6  if ct ==4211 | ct ==4215 | ct==4216 | ct==4225
* District 7
replace district = 7 if ct ==4225 | ct ==4226 | ct==4228 | ct==4225 |
round(ct,.01)==4236.02 | round(ct,.01)==4236.01 | round(ct,.01)==4239.02
* District 8
replace district = 8  if ct ==4226 | ct ==4227 | ct==4237 | ct==4238


* A) By District
**********************************************************
* Include district number in following list to select desired district(s)
keep if inlist(district,1,2,3,4,5,6,7,8) == 1

* OR (not both)

* B) By Census Tract
**********************************************************

* Place an asterisk in column 1 of the census tract(s) to keep
* Asterisk all to select entire City of Berkeley
* drop if ct == 4211
* drop if ct == 4212
* drop if ct == 4213
* drop if ct == 4214
* drop if ct == 4215
* drop if ct == 4216
* drop if ct == 4217
* drop if ct == 4218
* drop if ct == 4219
* drop if ct == 4220
* drop if ct == 4221
* drop if ct == 4222
* drop if ct == 4223
* drop if ct == 4224
* drop if ct == 4225
* drop if ct == 4226
* drop if ct == 4227
* drop if ct == 4228
* drop if ct == 4229
* drop if ct == 4230
* drop if ct == 4231
* drop if ct == 4232
* drop if ct == 4233
* drop if ct == 4234
* drop if ct == 4235
* drop if round(ct,.01) == 4236.01
* drop if round(ct,.01) == 4236.02
* drop if ct == 4237
* drop if ct == 4238
* drop if round(ct,.01) == 4239.01
* drop if round(ct,.01) == 4239.02
* drop if round(ct,.01) == 4240.01
* drop if round(ct,.01) == 4240.02
```

```
* Create series ranges: hu_cum_ll (lower limit) hu_cum (upper limit)

sort blockfips
generate blockid = _n

* Cumulative total of housing units
gen hu_cum = sum(hu_cob)
sort blockid
save blockfips.dta, replace

* Add 1 record
keep blockid hu_cum

keep if blockid == 1
* create lower limit
replace blockid = 0
replace hu_cum = 0
append using blockfips.dta

replace blockid = blockid + 1

rename hu_cum hu_cum_ll
keep blockid hu_cum_ll

* merge back
sort blockid
merge blockid using blockfips.dta

drop _merge
* Drop last record
drop if _n == _N

* Establish the sampling interval and housing unit sample weight

sum hu_cob
generate hu_smpl_wt = r(sum)/hu_cob
generate samp_int = int(r(sum)/30)

* Establish the random start

generate randno =uniform()
generate randstart = randno*samp_int if blockid==1
replace randstart = 0 if randstart==.
sum randstart
replace randstart = int(r(sum))

generate series_no1  = randstart
generate series_no2  = randstart + 1*samp_int
generate series_no3  = randstart + 2*samp_int
generate series_no4  = randstart + 3*samp_int
generate series_no5  = randstart + 4*samp_int
generate series_no6  = randstart + 5*samp_int
generate series_no7  = randstart + 6*samp_int
generate series_no8  = randstart + 7*samp_int
generate series_no9  = randstart + 8*samp_int
generate series_no10 = randstart + 9*samp_int
generate series_no11 = randstart + 10*samp_int
generate series_no12 = randstart + 11*samp_int
```

```
generate series_no13 = randstart + 12*samp_int
generate series_no14 = randstart + 13*samp_int
generate series_no15 = randstart + 14*samp_int
generate series_no16 = randstart + 15*samp_int
generate series_no17 = randstart + 16*samp_int
generate series_no18 = randstart + 17*samp_int
generate series_no19 = randstart + 18*samp_int
generate series_no20 = randstart + 19*samp_int
generate series_no21 = randstart + 20*samp_int
generate series_no22 = randstart + 21*samp_int
generate series_no23 = randstart + 22*samp_int
generate series_no24 = randstart + 23*samp_int
generate series_no25 = randstart + 24*samp_int
generate series_no26 = randstart + 25*samp_int
generate series_no27 = randstart + 26*samp_int
generate series_no28 = randstart + 27*samp_int
generate series_no29 = randstart + 28*samp_int
generate series_no30 = randstart + 29*samp_int


generate sample_cluster = 1 if series_no1 > hu_cum_ll & series_no1 <= hu_cum
replace  sample_cluster = 1 if series_no2 > hu_cum_ll & series_no2 <= hu_cum
replace  sample_cluster = 1 if series_no3 > hu_cum_ll & series_no3 <= hu_cum
replace  sample_cluster = 1 if series_no4 > hu_cum_ll & series_no4 <= hu_cum
replace  sample_cluster = 1 if series_no5 > hu_cum_ll & series_no5 <= hu_cum
replace  sample_cluster = 1 if series_no6 > hu_cum_ll & series_no6 <= hu_cum
replace  sample_cluster = 1 if series_no7 > hu_cum_ll & series_no7 <= hu_cum
replace  sample_cluster = 1 if series_no8 > hu_cum_ll & series_no8 <= hu_cum
replace  sample_cluster = 1 if series_no9 > hu_cum_ll & series_no9 <= hu_cum
replace  sample_cluster = 1 if series_no10 > hu_cum_ll & series_no10<= hu_cum
replace  sample_cluster = 1 if series_no11 > hu_cum_ll & series_no11<= hu_cum
replace  sample_cluster = 1 if series_no12 > hu_cum_ll & series_no12<= hu_cum
replace  sample_cluster = 1 if series_no13 > hu_cum_ll & series_no13<= hu_cum
replace  sample_cluster = 1 if series_no14 > hu_cum_ll & series_no14<= hu_cum
replace  sample_cluster = 1 if series_no15 > hu_cum_ll & series_no15<= hu_cum
replace  sample_cluster = 1 if series_no16 > hu_cum_ll & series_no16<= hu_cum
replace  sample_cluster = 1 if series_no17 > hu_cum_ll & series_no17<= hu_cum
replace  sample_cluster = 1 if series_no18 > hu_cum_ll & series_no18<= hu_cum
replace  sample_cluster = 1 if series_no19 > hu_cum_ll & series_no19<= hu_cum
replace  sample_cluster = 1 if series_no20 > hu_cum_ll & series_no20<= hu_cum
replace  sample_cluster = 1 if series_no21 > hu_cum_ll & series_no21<= hu_cum
replace  sample_cluster = 1 if series_no22 > hu_cum_ll & series_no22<= hu_cum
replace  sample_cluster = 1 if series_no23 > hu_cum_ll & series_no23<= hu_cum
replace  sample_cluster = 1 if series_no24 > hu_cum_ll & series_no24<= hu_cum
replace  sample_cluster = 1 if series_no25 > hu_cum_ll & series_no25<= hu_cum
replace  sample_cluster = 1 if series_no26 > hu_cum_ll & series_no26<= hu_cum
replace  sample_cluster = 1 if series_no27 > hu_cum_ll & series_no27<= hu_cum
replace  sample_cluster = 1 if series_no28 > hu_cum_ll & series_no28<= hu_cum
replace  sample_cluster = 1 if series_no29 > hu_cum_ll & series_no29<= hu_cum
replace  sample_cluster = 1 if series_no30 > hu_cum_ll & series_no30<= hu_cum

* Drop non-sampled blocks
drop if sample_cluster ~=1

* Keep blocfips and number of housing units
keep blockfips hu_cob hu_smpl_wt ct
sort blockfips
* outsheet using block_cluster_pps.txt, replace
```

```
log on
list blockfips hu_cob
sum hu_cob
disp r(sum)
log off

* Generate the cluster number (easier than blockfips) to identify selected
block
gen cluster_no = _n

* Identify sample addresspoints
joinby blockfips using blks_address_land_use.dta

* Recode property use codes
generate use4cat = 4
replace  use4cat = 1 if use_code == 72 | use_code == 77
replace  use4cat = 2 if use_code == 11
replace  use4cat = 3 if (use_code >= 21 & use_code <= 27) | use_code==12

label define use4label 1 "Multiresidential" 2 "Single Family Residence" 3 "2-
4 Units" 4 "Condo, Coop, Frat"
label values use4cat use4label


* List of All Address Points on Selected Blocks to use for Block Enumeration

* Sort list by street address
* Trim any leading or leaving blanks
replace f_add = trim(f_add)

* Create block with midpoint in street
generate charpos =strpos(f_add," ") - 1
generate str6 streetno = substr(f_add,1,charpos)
generate numberlength = length(streetno)

* First 10 characters of streetname to avoid apt numbers sorting last
generate str30 streetname = substr(f_add,charpos+1,10)

* To preserve original sort order
save cluster_all.dta, replace

sort cluster streetname streetno

* Create sequential number by cluster for all address points
by cluster: gen address_no = _n

outsheet cluster_no address_no f_add use4cat loc_id_in blockfips using
cluster30by_all_addresses.txt, replace
clear

use cluster_all.dta
* Select 7 housing units per cluster

sort cluster
by cluster: sample 7, count

rename blockfips blockid
```

```
format %20.0g  blockid

generate str15 blockfips = "06001" + string(blockid,"%10.0f")


* List of Housing Units and Addresses to Include in Survey
sort cluster streetname streetno
* Create a sample household number
by cluster: generate sample_no = _n

* Create sample weights
*****************************************************
generate double smple_wt = (1/30)*hu_smpl_wt*hu_cob/7

* Create an ID numbe rfor the questionnaire
generate id_number = _n

outsheet cluster_no sample_no f_add use4cat use_code hu_cob blockid blockfips
smple_wt id_number using cluster30by7addresses.txt, replace

* Citywide variable
generate cob = 1
table cob, c(sum smple_wt)

* Set PSU and Sample weight
svyset cluster_no [pweight=smple_wt]
log on
svy:total cob
svy:total cob, over(use_code)

* Weighted proportions
svy: prop use_code

* Sample N
tab1 use_code use_desc
log off

* Erase temporary files
erase block_fips_cob.dta
erase blockfips.dta
erase blks_address_land_use.dta
erase cluster_all.dta
```

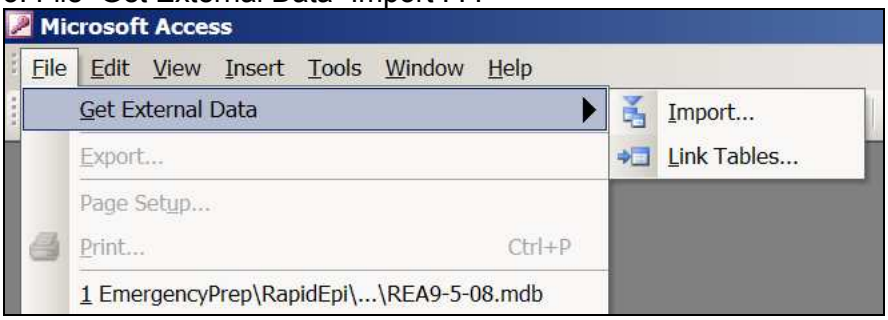
Appendix C. Step-by-Step Procedures for Creating an MS Access Database from the Cluster Sample Derived from the Parcel Database

In STATA

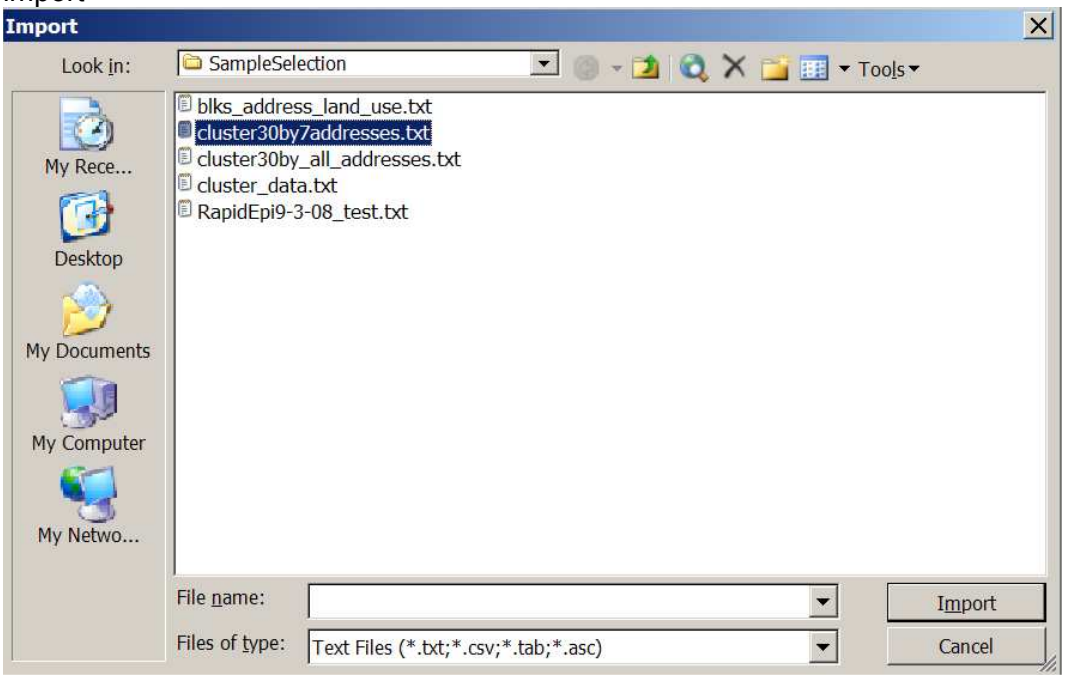
1. Create 30 by 7 (N=210) file named "cluster30by7addresses.txt" by doubleclicking cluster_sample.do

In MS Access

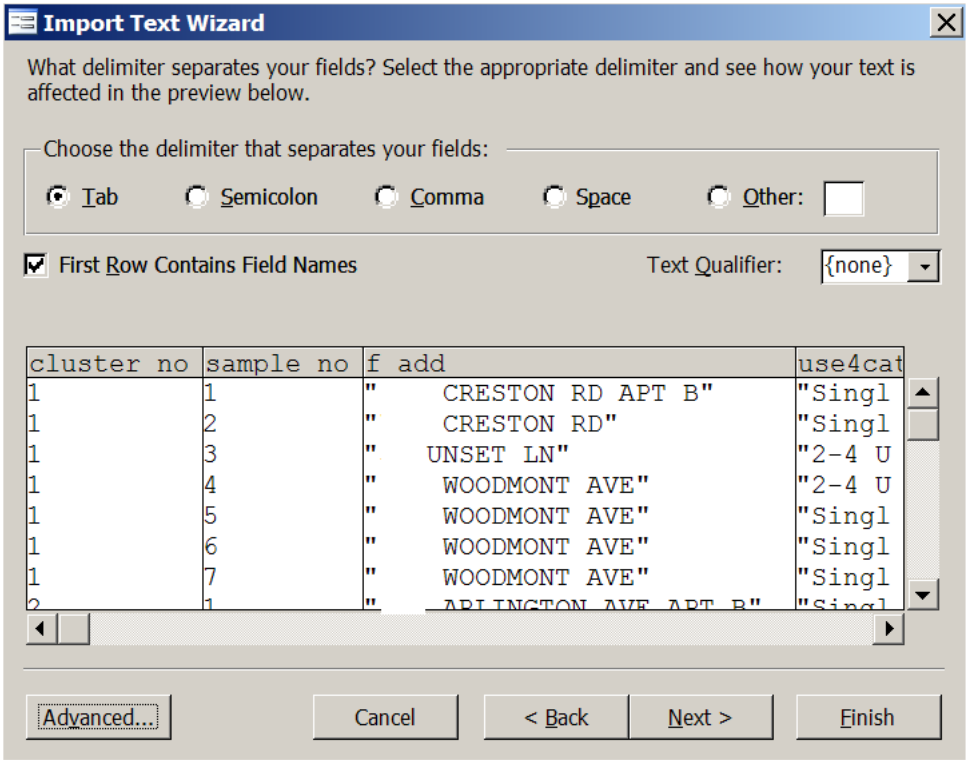
2. Open REA9-5-08.mdb
3. File>Get External Data>Import . . .



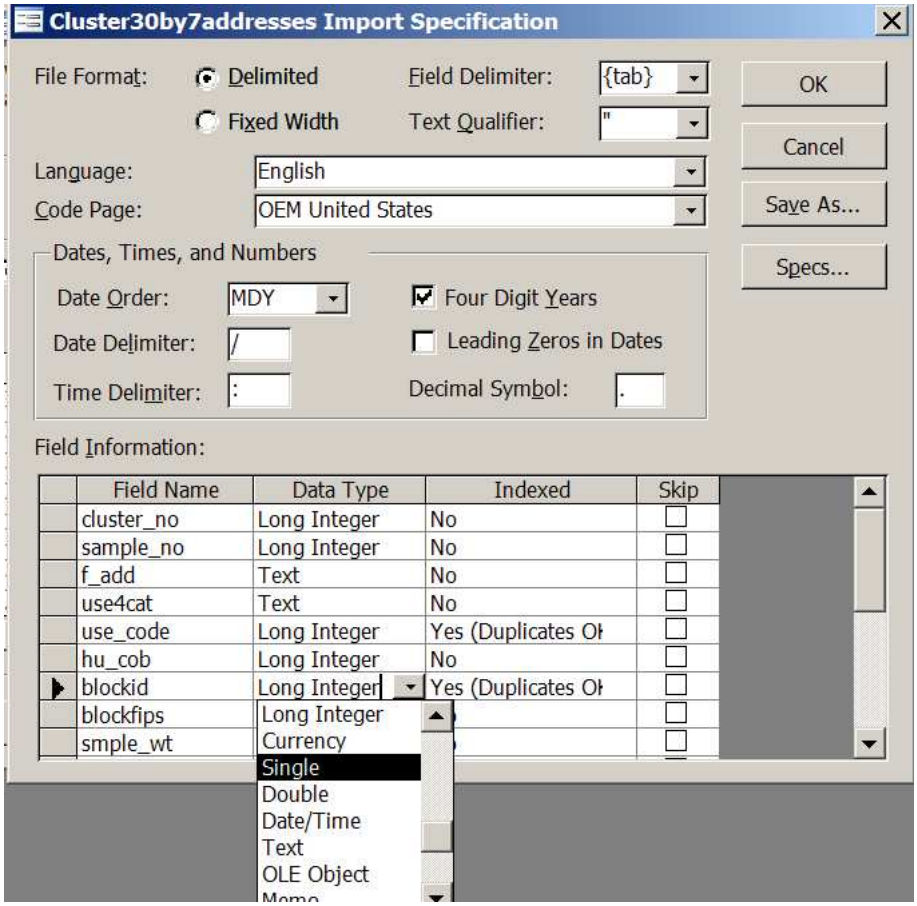
4. Use wizard to navigate to correct director and text file "cluster30by7addresses.txt", click import



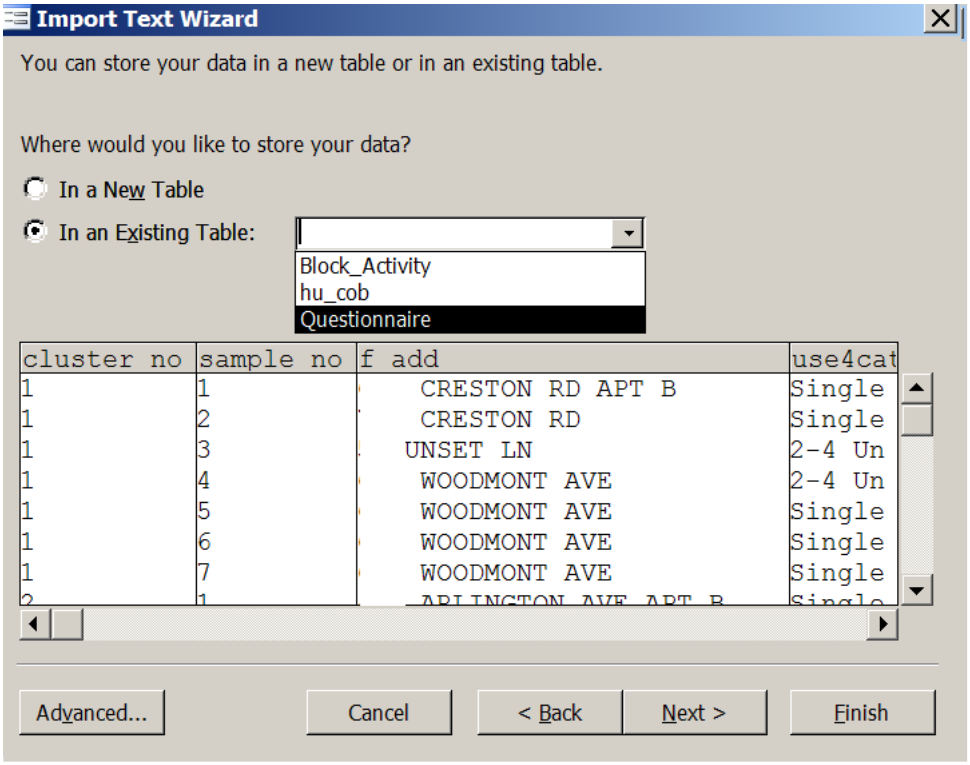
5. Use Import wizard, select Delimited>Next and
Click on First Row Contains Field Names
Select double quotes " as Text Qualifier
Click on Advanced button



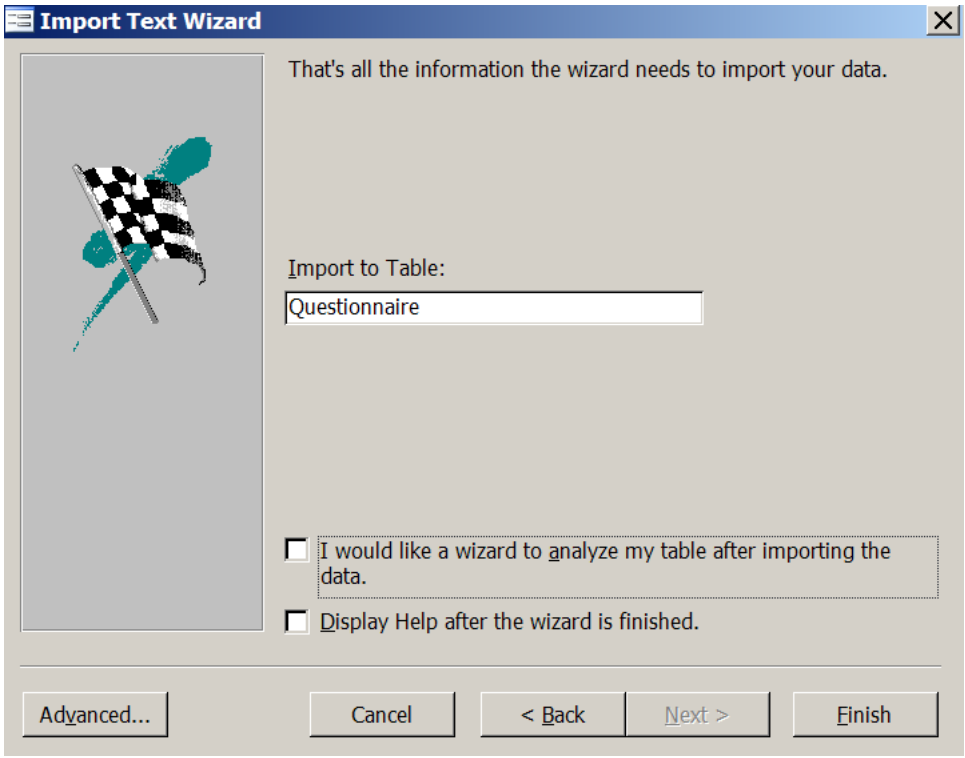
6. Change BlockID datatype to Single (precision number)
Click OK to return to wizard above and
Click Next >



7. Store the data in an existing table called Questionnaire and click Next>

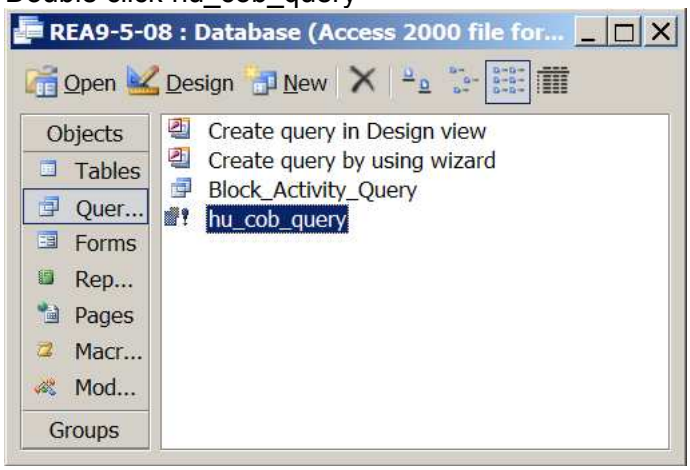


8. Click Finish button



9. Create a table so that the Block Activity Log will show the number of housing units from the parcel database

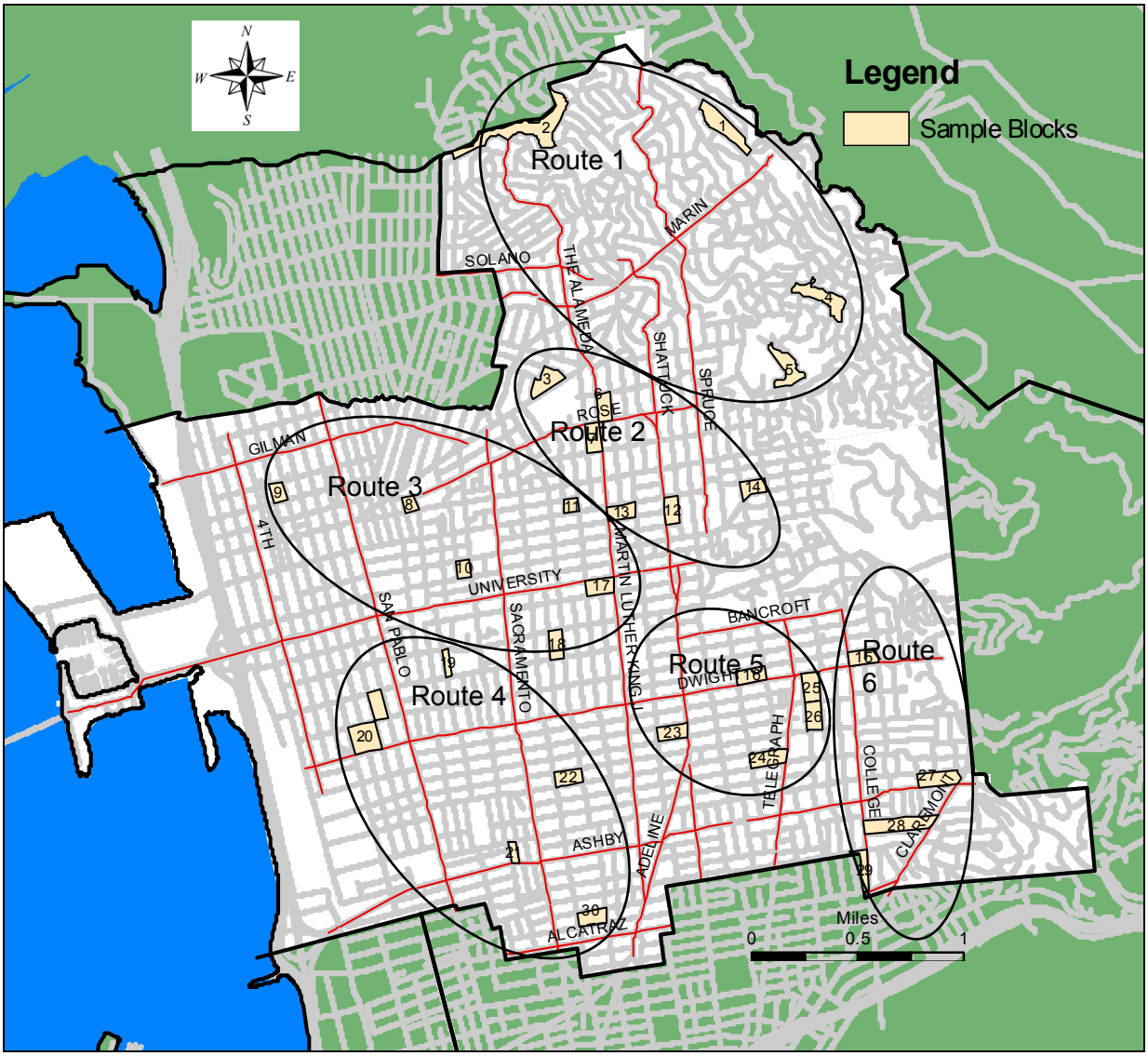
Double click hu_cob_query



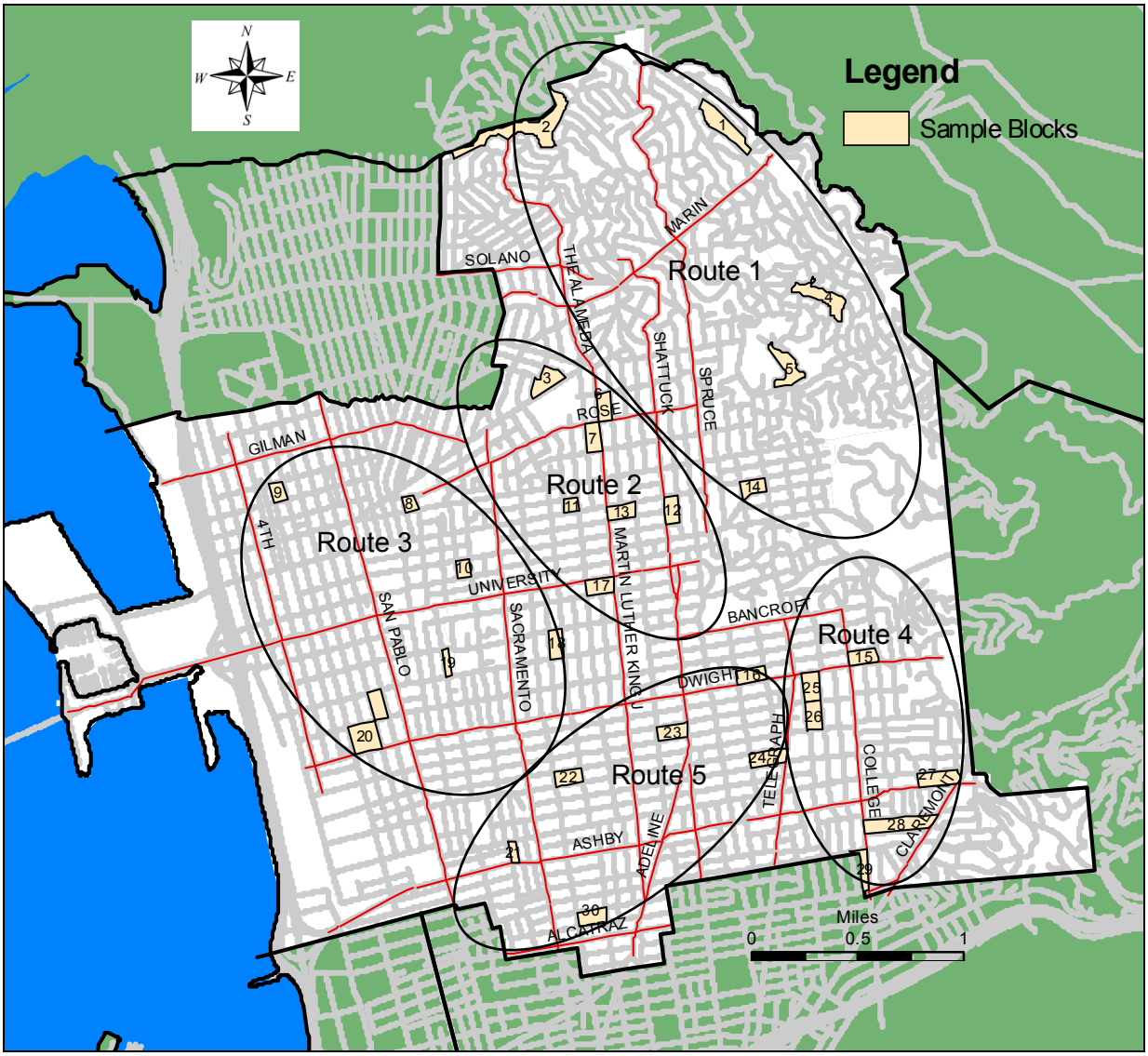
Appendix D. Block Maps for Citywide Disaster (N=30)

PDF files (not shown)

Appendix E. Six Route Scheduling of Rapid Epidemiologic Assessment



Appendix E. Five Route Scheduling of Rapid Epidemiologic Assessment



Appendix F. Excel Spreadsheet for Designing a Daily Schedule

	A	B	C	D
1	Generic		Interviewers	
2	Start Time	Finish Time	Activity	Duration (min)
3	=TIME(8,0,	=A3+ TIME(0,D3,0)	Assemble	5
4	=B3	=A4+ TIME(0,D4,0)	Training and route assignments	40
5	=B4	=A5+ TIME(0,D5,0)	Travel to **Block 1** with partner	30
6	=B5	=A6+ TIME(0,D6,0)	Enumerate households on block with partner	15
7	=B6	=A7+ TIME(0,D7,0)	Household 1-7 interviews and intra-block travel	24
8	=B7	=A8+ TIME(0,D8,0)	Travel to **Block 2** with partner	15
9	=B8	=A9+ TIME(0,D9,0)	Enumerate households on block with partner	15
10	=B9	=A10+ TIME(0,D10,0)	Household 1-7 interviews and intra-block travel	24
11	=B10	=A11+ TIME(0,D11,0)	Travel to **Block 3** with partner	15
12	=B11	=A12+ TIME(0,D12,0)	Enumerate households on block with partner	15
13	=B12	=A13+ TIME(0,D13,0)	Household 1-7 interviews and intra-block travel	24
14	=B13	=A14+ TIME(0,D14,0)	Travel to central meeting point, exchange data with supervisor	15
15	=B14	=A15+ TIME(0,D15,0)	Break for lunch	30
16	=B15	=A16+ TIME(0,D16,0)	Travel to **Block 4** with partner	15
17	=B16	=A17+ TIME(0,D17,0)	Enumerate households on block with partner	15
18	=B17	=A18+ TIME(0,D18,0)	Household 1-7 interviews and intra-block travel	24
19	=B18	=A19+ TIME(0,D19,0)	Travel to **Block 5** with partner	15
20	=B19	=A20+ TIME(0,D20,0)	Enumerate households on block with partner	15
21	=B20	=A21+ TIME(0,D21,0)	Household 1-7 interviews and intra-block travel	24
22	=B21	=A22+ TIME(0,D22,0)	Travel to **Block 6** with partner	15
23	=B22	=A23+ TIME(0,D23,0)	Enumerate households on block with partner	15
24	=B23	=A24+ TIME(0,D24,0)	Household 1-7 interviews and intra-block travel	24
25	=B24	=A25+ TIME(0,D25,0)	Travel to central meeting point, exchange data with supervisor	15
26	=B25	=A26+ TIME(0,D26,0)	Travel to **Block 7** with partner	15
27	=B26	=A27+ TIME(0,D27,0)	Enumerate households on block with partner	15
28	=B27	=A28+ TIME(0,D28,0)	Household 1-7 interviews and intra-block travel	24
29	=B28	=A29+ TIME(0,D29,0)	Travel to **Block 8** with partner	15
30	=B29	=A30+ TIME(0,D30,0)	Enumerate households on block with partner	15
31	=B30	=A31+ TIME(0,D31,0)	Household 1-7 interviews and intra-block travel	24
32	=B31	=A32+ TIME(0,D32,0)	Travel from Block 8 to HQ	30

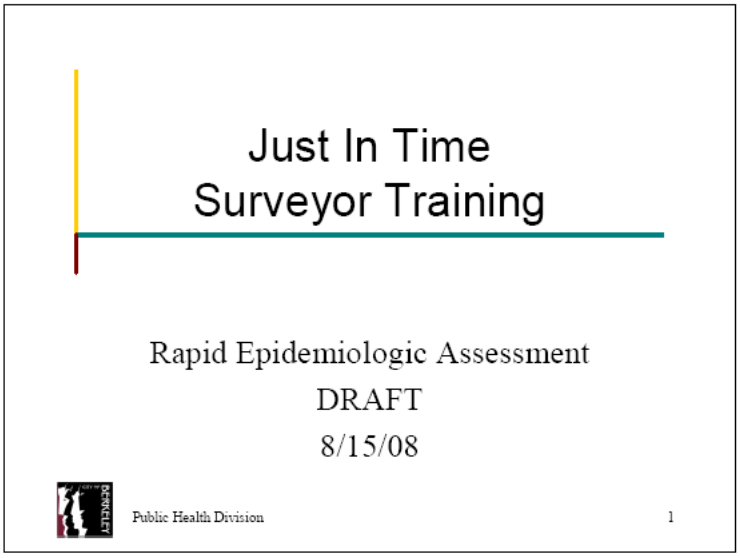
Appendix G. Step-By-Step Guide For Re-sampling Households

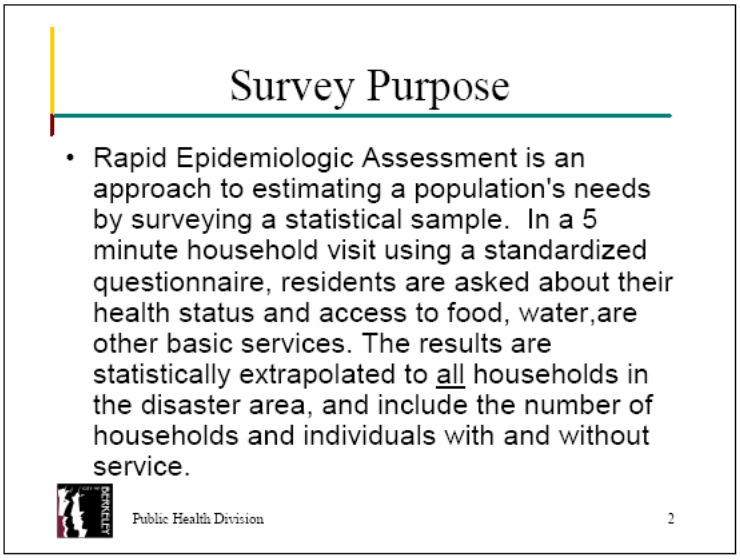
1. Combine the lists of “All Households On Block” and “Additional Households”.

2. Divide the total number of households by 7. If after dividing a whole number is not produced round up to the nearest whole number. This number is your sampling interval.

3. Pick a random start with-in the first sampling interval.
    a. Use the list of random numbers (below) to pick the random start.
        i. Use the first number you come to on the random number list that is with-in the sampling interval as the random start.
        ii. The random number list has several columns start with the first column the first time you perform re-sampling and use the second column the second time you re-sample household.
    b. After the selecting the random start select six more households adding the sampling interval to the random start and then adding the 2 times the sampling interval to the random start, then 3 times the sampling interval to the random start, and so on until you have sampled 7 households. For example if your sampling interval is 18 and your random start is 12 then the first sample household is 12 the second is 30, the third is 48 etc.

Appendix H. Training Materials





Number of Surveys

- 210 surveys
- 30 blocks
- 7 households on each block

Public Health Division 3

Map of Blocks To Be Surveyed

Public Health Division 4

How To Find Households To Be Surveyed

- Use map to get to selected block
- Use block map and address list to find selected households

Public Health Division 5

What To Do Once You Reach The Selected Block

- Use the list of household on the block to check to make sure no new houses have been added. To do this count all the households on the block.
- If there is more than 10% difference between the number of households on the list and the actual number of households on the block you must re-sample the households to be surveyed using the following method.

Public Health Division 6

Re-Sampling Households To Survey

- Add the new households to the list of existing households.
- Divide this new number by 7, this will give you your sampling interval.
- Choose a random household to start with in the first sampling interval using the random number table on the Re-Sampling Guide.

Public Health Division 7

Reselecting Households To Survey Cont.

- Using the random start and the sampling interval select 7 households to survey.
- Reminder: Only do this if there is more than a 10% difference between the listed number of houses and the actual number of houses.

Public Health Division 8

If No One Is Home

- Note the time and return later in the day.
- If on the second attempt no one is home, attempt to ask a neighbor for information on the survey about the selected household. DO NOT ask the neighbor for information about his/her house.
- If a neighbor is not available and the house appears to be completely destroyed complete the survey as appropriate.
- If a neighbor is not home and the house is intact note that you were unable to complete the survey.

Public Health Division 9

How To Handel Refusals

- Too busy - Offer to return later that day
- Won't know answers - Reassure there are no right or wrong answers
- Not interested - Try one attempt to encourage participation. Thank them & leave if refuses (note the refusal)
- Refused rudely - Thank them & leave (note the refusal)
- Refuse to answer specific question leave question blank and go on with next question.

Public Health Division 10

What To Do When You Get To The Door

- Introduce Yourself
- Why we are doing survey
- How long it will take
- What will be done with the info

Public Health Division 11

How To End The Survey

- Thank the respondent
- If you have an incentive give it to them
- Ask if they have any questions

Public Health Division 12

How To Use The Handhelds

Public Health Division 13

How To Use The Radios

- Turn on radio using volume dial.
- Set the channel to 3 (dial at the top of the radio with numbers on it).
- Hold down the large button on the left side when sending a message.
- When using keep the antenna away from your face, and hold radio 4 to 6 inches from your face.
- Practice using radios.

Public Health Division 14

Practice

- Do a roll play of the survey with the person next to you.

Public Health Division 15

Stay Safe

- Work in pairs
- Check for loose dogs; If there are loose dogs, skip and note
- If you feel in any way unsafe approaching a house or an apartment, skip and tell team leader
- Be conscious of your surroundings – Use common sense

Public Health Division 16

Schedule

Time	Activity	Location
8:00	Meet	Office
8:05	Check supplies	Office
8:15	Review days schedule	
8:30	Depart for meeting point	
9:00	Depart for first block	
9:35	Begin enumerating block	Block
9:50	Begin re-sample process (if necessary)	Block
9:50	Survey Households	Block
10:25	Depart for next block	Block
11:00	Begin enumerating second block	Block
11:15	Begin re-sample process (if necessary)	Block
11:20	Survey Households	Block
11:55	Depart for meeting point	
12:45	Lunch	Meeting Point
12:45	Data check by team leader	Meeting Point
1:00	Meet with runner	Meeting Point

Public Health Division 17

List of Items To Bring

1. **Nametag**
2. **Handheld uploaded with surveys**
3. **Paper copies of surveys**
4. **Pencils**
5. **Clipboard**
6. **Map to the selected block**
7. **Map of houses on selected block**
8. **Map of closest disaster relief stations**
9. **List of existing households on the block**
10. **Cell phone/Radio**
11. **Contact information for other team members**

Public Health Division 18

Rapid Epidemiologic Assessment
Step-By-Step Guide

Today's Date: _____ Assigned Block:_____
Interviewer: _____
Supervisor: _____ Supervisor's telephone #:_____

1. Arrive a designated block.

2. Begin enumeration of all households on the designated block.
    a. If you are in a group divide the streets on the block, each person can enumerate half of the block.
    b. Use the list of households titled "All Households On Block" to find houses on block.
    c. If there is a household that is not on the list "All Households On Block" add the address of the house household to the form titled "Additional Households On Block".
    d. When you have finished with your designated streets meet with the other member of your group.
    e. Your team member should have his/her own "Additional Households On Block" form combine the two forms.
    f. Number the additional households on the block consecutively starting with the one number greater than the number from the list "All Households On Block". For example, if the list of all households on the block ends at 45 begin numbering the additional households on the block at 46.
    g. If the number of <u>additional</u> households on the block is greater than 10% of the number of households on the list "All Households On Block" follow step-by-step guide to re-sampling.

3. Begin survey of designated households.
    a. If in a group of 2 divide designated households on the "Selected Households" list.
    b. Survey households either using the handhelds or paper surveys.
        i. If no one is home note the time and return at a later time to complete the survey.
        ii. If on the second attempt no one is home ask a neighbor questions about the designated household.
    c. Finish surveys and meet with other group member.

4. Check in with team leader using radios/cell phone.

Continue to your next assigned block and repeat steps 1-4.

Appendix I. Data Dictionary for Rapid Epidemiologic Assessment

1. Questionnaire

Name	Definition	Type	Width	Data Validation
date_svy	Date of survey	D	10	mm/dd/ccyy
time_svy	Hour of survey	D	4	Hour:min (military)
blockid	Cluster or block ID number	N	5	US Census FIPS
smpl_wt	Sample weight from PPS selection	N	10	(populated from parcel database)
suv_number	Survey number	N	10	obligatory
address	Street address	T	30	(populated from parcel database)
svyr_id	Surveyor ID	N	5	
hu_cob	Number of households in cluster/block according to parcel database	N	4	continuous
hu_new	Number of households in cluster not in parcel database observed in field	N	3	continuous
time_trv_to	Time to travel to the block from the public health department offices	N	3	minutes
time_trv_from	Time to travel back to the public health department offices from the block	N	3	minutes
time_enum	Time it takes to enoumerate all the houses on the block	N	3	minutes
resample	Survey is a resampled household	N	1	1=yes 0=no
nosurvey	Unable to complete survey because?	N	1	1=refusal 2=house destroyed 3=no one home 4=other
		N		
home_type	What type of house is it (interviewer answers not respondent)	N	1	1=Single family house, 2=2-5 family unit, 4= ≥6 units, 5= migrant camp, 6=mobile home
ans_type	Was this survey answered only by the interviewer? (i.e. house was distroyed and respondent is gone)	N	1	1=yes 0=no
home_dam	Damage to home?	N	1	1=None, 2=Damaged/habitable, 3=Damaged/uninhabitable/repairable, 4=Damaged/unihabitable/destroyed
people_pre	Number of people in home pre disaster	N	2	continuous
people_post	Number of people in home post disaster	N	2	continuous
shelter	Where people who did not stay at home stayed	N	1	1=Shelter, 2=Special Needs Shelter, 3=Hotel/Motel 4=Neighbor's Home, 5=Other
less_2years	Number of people in home less than 2	N	2	0-9, >9
preg	Number of people in home who are pregnant	N	2	0-9, >9
more_64years	Number of people in home over 64	N	2	0-9, >9
run_water	Running water?	N	1	1=yes 0=no
water_source	Where they get water from	N	1	1=well 2=bottle 3=public 4=none
generator	Have they used a generator?	N	1	1=yes 0=no

Name	Definition	Type	Width	Data Validation
gen_loc	Where the generator is located	N	1	1=indoor 2=garage/shed 3=outside 4=carport 5=other
co_alarm	Do they have functioning co alarm	N	1	1=yes 0=no
toilet_work	Does the indoor toilet work	N	1	1=yes 0=no
toilet_access	Do they have access to a toilet that works	N	1	1=yes 0=no
telephone	Do they have a working telephone	N	1	1=yes 0=no
transport	Do they have transportation	N	1	1=yes 0=no
radio_work	Do they have working radio	N	1	1=yes 0=no
media_access	Do they have access to the news	N	1	1=yes 0=no
gas_off	Has the gas been turned off to the house	N	1	1=yes 0=no
trash_disp	Are they having difficulty with trash disposal	N	1	1=yes 0=no
injured	Was anyone injured	N	1	1=yes 0=no
inj_care	Were they able to get the care they needed	N	1	1=yes 0=no
ill_anyone	Is anyone ill	N	1	1=yes 0=no
ill_care	Were they able to get the care they needed	N	1	1=yes 0=no
medical	Does anyone now require care	N	1	1=yes 0=no
diarrheal	Does anyone have a diarrheal illness	N	1	1=yes 0=no
respiratory	Does anyone have a respiratory illness	N	1	1=yes 0=no
rash	Does anyone have a rash	N	1	1=yes 0=no
cronic	Does anyone have a chronic illness	N	1	1=yes 0=no
emo_ill	Does anyone have an emotional illness	N	1	1=yes 0=no
rx_access	Are they able to get their medication	N	1	1=yes 0=no
rx3days	Do they have enough medication for 3 days	N	1	1=yes 0=no
food3days	Do they have enough food for 3 days	N	1	1=yes 0=no
emotional	Are they not able to take care of themselves or dependents because of emotional problems	N	1	1=yes 0=no
soc_sup	Do they have access to support networks	N	1	1=yes 0=no
dis_relief	Have they received disaster relief such as food, water, ice, or shelter from disaster relief stations?	N	1	1=yes 0=no
no_dis	If no why?	N	1	1=didn't need relief 2=couldn't get there, 3=didn't know about them, 4=other
greatest_need	What is there greatest need	N	1	1=food 2=water 3=electricity 4=medical care 5=medications 6=transportation 8=other
other_need	What other need do they have	N	40	open ended
petsnum	Number of pets in the house	N	2	0=none
birds	Number of birds in the house	N	2	
cats	Number of cats	N	2	
dogs	Number of dogs	N	2	
livestock	Number of livestock	N	2	
rodents	Number of rodents	N	2	
otherpets	Number of other pets	N	2	
pet_food	need pet food?	N	1	1=yes 0=no
pet_med	need pet meds?	N	1	1=yes 0=no
pet_crate	need a crate for pet	N	1	1=yes 0=no
pet_leash	need a leash	N	1	1=yes 0=no

2. Block Activity Form

Name	Definition	Type	Width	Data Validation
cluster_no	Block identifier (1-30)	N	2	1-30
blockid	Census ID number	N	5	Census
block_svy_date	date of survey	D	10	mm/dd/ccyy
supervisor	Text name of supervisor	T	50	
svyr_name	Surveyor name	T	50	
resample_block	resampled household	N	1	1=Yes 0=No
hu_new	number of households on block based on direct observation	N	3	0-999
time_leave_HQ	Hour:minute depart headquarters/last block to go to first/next block	D	4	HH:MM
time_arv_block	Hour:minute arrive first/next block to go to next block	D	4	HH:MM
time_beg_enu	Hour:minute begin enumeration	D	4	HH:MM
time_end_enu	Hour:minute end enumeration	D	4	HH:MM
time_beg_rs	Hour:minute begin resampling	D	4	HH:MM
time_end_rs	Hour:minute end resampling	D	4	HH:MM
time_arv_h1	Hour:minute arrive household 1	D	4	HH:MM
time_leave_h1	Hour:minute depart household 1	D	4	HH:MM
time_arv_h2	Hour:minute arrive household 2	D	4	HH:MM
time_leave_h2	Hour:minute depart household 2	D	4	HH:MM
time_arv_h3	Hour:minute arrive household 3	D	4	HH:MM
time_leave_h3	Hour:minute depart household 3	D	4	HH:MM
time_arv_h4	Hour:minute arrive household 4	D	4	HH:MM
time_leave_h4	Hour:minute depart household 4	D	4	HH:MM
time_arv_h5	Hour:minute arrive household 5	D	4	HH:MM
time_leave_h5	Hour:minute depart household 5	D	4	HH:MM
time_arv_h6	Hour:minute arrive household 6	D	4	HH:MM
time_leave_h6	Hour:minute depart household 6	D	4	HH:MM
time_arv_h7	Hour:minute arrive household 7	D	4	HH:MM
time_leave_h7	Hour:minute depart household 7	D	4	HH:MM
time_leave_block	Hour:minute depart last block to go to HQ	D	4	HH:MM
time_arv_HQ	Hour:minute arrive HQ	D	4	HH:MM
com_on_blk	Comments	T	255	free text

J. STATA batch file for statistical analysis of 30 by 7 cluster sample

```
* cluster_analysis.do - 9/19/08 - Neil Maizlish
* Analyzes 30 by 7 cluster sample
* Data are exported from an MS Access database Questionnaire)

program define title1
 display "PHD" _col(40) "Analysis Date: " "$S_DATE"  _newline
 display "Sample Data for Rapid Epi Assessment, 30 x 7 Cluster Sample,
Berkeley"
end

set more off
set memory 10M
* set memory 768000
set matsize 800
set logtype text
* Log of data transformations
log using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\cluster_analysis.doc,
replace
title1
log off

* Read block activity and for number of housing units on block
insheet using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\block_activity_data.txt,
names
keep cluster_no hu_new resample_block
sort cluster_no
save block_activity_data.dta, replace
clear

* read cluster sample
insheet using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\cluster_data.txt, names
* insheet using
C:\COB\EmergencyPrep\RapidEpi\SampleSelection\questionnaire.txt, names
format %20.0g  blockfips

sort cluster_no
joinby cluster_no using block_activity_data.dta

* Administrative variables
* ID Number of survey

* Date of survey (MS Access hms=00:00:00 + 1 millisecond to make into
next day)
generate svy_date = clock(date_svy,"MDYhms") + 100000
format %tcnn/dd/CCYY svy_date

* Time of survey
generate svy_time =clock(time_svy,"###hms")
format %tCHH:MM svy_time

* Surveyer ID
label define svyr_id_cat 1 Neil 2 Kate 3 Kathy 4 Tanya
```

```
label values svyr_id svyr_id_cat

* Was this block resampled
* This gives flexibility in case block activity form not used to
* record whether household was resampled
replace resample=resample_block
label values resample yncat

* Observed number of address points on sample block

* Type of respondent (0=resident,
label define ans_type_cat 0 "Resident" 1 "Neighbor" 2 "Interviewer"
label values ans_type ans_type_cat

* Type of Home
label define home_type_cat 1 "Single family house"  2 "2-5 Family
units"  4  "6+ units"  5  "Migrant camp"  6 "Mobile home"
label values home_type home_type_cat

* Damage to Home
label define home_dam_cat 1 "None"  2 "Damaged/habitable" 3
"Damaged/uninhabitable/repairable"  4 "Damaged/unihabitable/destroyed"
label values home_dam home_dam_cat

* Pre-disaster population

* Post-disaster population

* shelter
label define shelter_cat 1 "Shelter" 2 "Special Needs" 3 "Hotel/Motel"
4 "Neighbor " 5 "Other"
label values shelter shelter_cat

* Any people <2 year olds
label define yncat 0 "No" 1 "Yes"
label values less_2years yncat

* Any people 65 and older
label values more_64years yncat

* Any people pregnant
label values preg yncat

* Running water to No Running water
label values run_water yncat

* Water Source
label define water_source_cat 1 Well 2 Bottle 3 Public 4 None
label values water_source water_source_cat

* Electricity from poewer company
label values electricity yncat

* Use of a generator
label values generator yncat

* Location of Generator
```

```
label define gen_loc_cat 1 "Indoor" 2 "Garage/shed" 3 "Outside" 4
"Carport"  5 "Other"
label values gen_loc gen_loc_cat

* CO Alarm
label values co_alarm yncat

* Working Indoor Toilet
label values toilet_work yncat

* Access to Working Toilet
label values toilet_access yncat

* Working Telephone
label values telephone yncat

* Access to transportation
label values transport yncat

* Working Radio
label values radio_work yncat

* Access to news
label values media_access yncat

* Gas turned off to house
label values gas_off yncat

* Trash disposal
label values trash_disp yncat

* Anyone injured
label values injured yncat

* Injured get care
label values inj_care yncat

* Anyone ill
label values ill_anyone yncat

* Ill get care
label values ill_care yncat

* Require care now
label values medical yncat

* Types of Illness
* Diarrhea
label values diarrheal yncat

* Respiratory
label values respiratory yncat

* Rash
label values rash yncat

* Chronic
```

```
label values cronic yncat

* Mental
label values emo_ill yncat


* Able to get medication
label values rx_access yncat

* 3 days supply of meds
label values rx3days yncat

* 3 days of food
label values food3days yncat

* Not able to take care of themselves/dependents due to emotional
problems
label values emotional yncat

* Have network of social support
label values soc_sup yncat

* Are there pets living in the house
label values pets yncat


* Number of birds

* Number of cats

* Number of dogs

* Number of livestock

* Number of rodents

* Other pets

* Pet food
label values pet_food yncat

* Pet meds
label values pet_med yncat

* Pet crates
label values pet_crate yncat

* Pet leash
label values pet_leash yncat

* Received disaster relief
label values dis_relief yncat

* Reason for not getting disaster relief
label define no_dis_cat 1 "Didn't need relief" 2 "couldn't get there"
3 "Didn't know about them"  4 "Other"
label values no_dis no_dis_cat
```

```
* Greatest Need
label define greatest_need_cat 1 Food 2 Water 3 Electricity 4 "Medical
care" 5 "Medications" 6 "Transportation" 8 "Other"
label values greatest_need greatest_need_cat

* other_need
label define other_need_cat 1 Soap 2 Towels 3 "Toilet Paper" 4 "First
Aid Kit" 5 "Bedding" 6 "Coffee Filters" 8 "Other"
label values other_need other_need_cat

* Comments

* Descriptive Analysis ************************************

* You must remove the asterisk for the sample weight you want
* Re-enumerated blocks in the field
generate double new_smple_wt = (1/30)*hu_smpl_wt*hu_new/7
* mathematically equivalent to:
* generate double new_smple_wt = smple_wt*(hu_new/hu_cob)

* Original Sample Weight from parcel Database
* svyset cluster_no [pweight=smple_wt]
svyset cluster_no [pweight=new_smple_wt]

* Create All City variable
* generate cob=1

* Total Households
log on
svy:total cob

* Home Type
* Households
* Sample N
tab1 home_type
* Weighted Proportion
svy:prop home_type
* Weighted N
svy:total cob, over(home_type)
* Population
svy:total people_post, over(home_type)


* Estimates of Damaged Homes
* Sample N
tab1 home_dam
* Weighted Proportion
svy:prop home_dam
* Weighted N
svy:total cob, over(home_dam)
* Population
svy:total people_post, over(home_dam)

* Estimate of Pre-Disaster Population
tab1 people_pre
svy:total people_pre
```

```
* Estimate of Post-Disaster Population
tab1 people_post
svy:total people_post

* Shelter
* Sample N
tab1 shelter
* Weighted Proportion
svy:prop shelter
* Weighted N
svy:total cob, over(shelter)
* Population
svy:total people_post, over(shelter)


* Running water
* Households
tab1 run_water
svy:mean run_water
svy:total cob, over(run_water)
* Population
svy:total people_post, over(run_water)

* Water Source
* Sample N
tab1 water_source
* Weighted Proportion
svy:prop water_source
* Weighted N
svy:total cob, over(water_source)
* Population
svy:total people_post, over(water_source)

* Electricity
tab1 electricity
svy:mean electricity
svy:total cob, over(electricity)
* Population
svy:total people_post, over(electricity)

* Generator
tab1 generator
svy:mean generator
svy:total cob, over(generator)
* Population
svy:total people_post, over(generator)

* Location of generator
* Sample N
tab1 gen_loc
* Weighted Proportion
svy:prop gen_loc
* Weighted N
svy:total cob, over(gen_loc)

* CO Alarm
```

```
tab1 co_alarm
svy:mean co_alarm
svy:total cob, over(co_alarm)
* Population
svy:total people_post, over(co_alarm)

* Working Indoor Toilet
tab1 toilet_work
svy:mean toilet_work
svy:total cob, over(toilet_work)
* Population
svy:total people_post, over(toilet_work)


* Access to Working Toilet
tab1 toilet_access
svy:mean toilet_access
svy:total cob, over(toilet_access)
* Population
svy:total people_post, over(toilet_access)

* Working Telephone
tab1 telephone
svy:mean telephone
svy:total cob, over(telephone)
* Population
svy:total people_post, over(telephone)

* Access to transportation
tab1 transport
svy:mean transport
svy:total cob, over(transport)
* Population
svy:total people_post, over(transport)

* Working Radio
tab1 radio_work
svy:mean radio_work
svy:total cob, over(radio_work)
* Population
svy:total people_post, over(radio_work)

* Access to news
tab1 media_access
svy:mean media_access
svy:total cob, over(media_access)
* Population
svy:total people_post, over(media_access)

* Gas turned off to house
tab1 gas_off
svy:mean gas_off
svy:total cob, over(gas_off)
* Population
svy:total people_post, over(gas_off)

* Trash disposal
```

```
tab1 trash_disp
svy:mean trash_disp
svy:total cob, over(trash_disp)
* Population
svy:total people_post, over(trash_disp)

* Household with of <2 year olds
recode less_2years 0=0 1/99=1, gen(less_2years_cat)
tab1 less_2years_cat
svy:mean less_2years_cat
svy:total cob, over(less_2years_cat)
* Population total
svy:total less_2years

* Any people 65 and older
recode more_64years 0=0 1/9=1, gen(more_64years_cat)
tab1 more_64years_cat
svy:mean more_64years_cat
svy:total cob, over(more_64years_cat)
* Population total
svy:total more_64years

* Any people pregnant
recode preg 0=0 1/9=1
tab1 preg
svy:mean preg
svy:total cob, over(preg)

* Anyone injured
tab1 injured
svy:mean injured
svy:total cob, over(injured)

* Injured get care
tab1 inj_care
svy:mean inj_care
svy:total cob, over(inj_care)

* Anyone ill
tab1 ill_anyone
svy:mean ill_anyone
svy:total cob, over(ill_anyone)

* Ill get care
tab1 ill_care
svy:mean ill_care
svy:total cob, over(ill_care)

* Require care now
tab1 medical
svy:mean medical
svy:total cob, over(medical)

* Type of Illness

* Diarrheal Illness
* Sample N
```

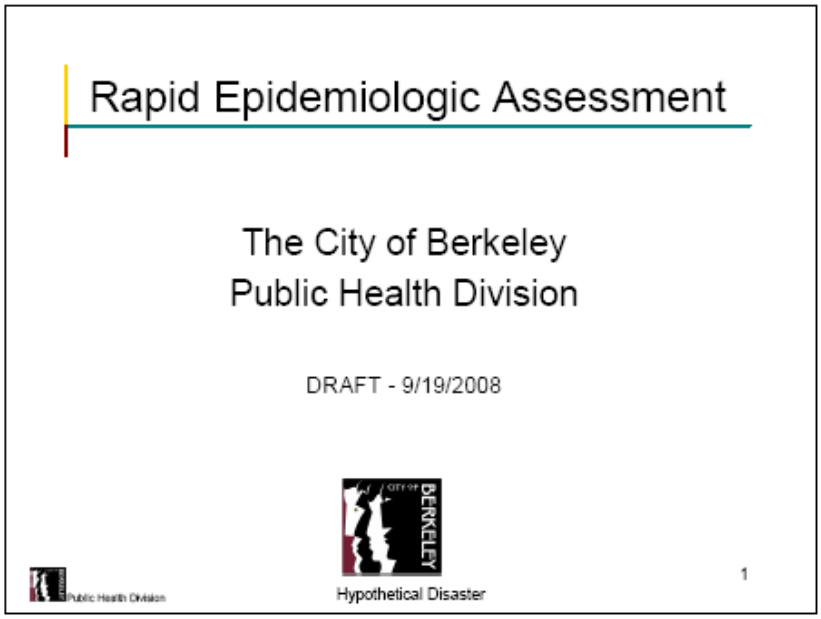
```
tab1 diarrheal
* Weighted Proportion
svy:prop diarrheal
* Weighted N
svy:total cob, over(diarrheal)

* Respiratory Illness
* Sample N
tab1 respiratory
* Weighted Proportion
svy:prop respiratory
* Weighted N
svy:total cob, over(respiratory)

* Rash
* Sample N
tab1 rash
* Weighted Proportion
svy:prop rash
* Weighted N
svy:total cob, over(rash)

* Chronic Illness
* Sample N
tab1 cronic
* Weighted Proportion
svy:prop cronic
* Weighted N
svy:total cob, over(cronic)

* Emotional Illness
* Sample N
tab1 emo_ill
* Weighted Proportion
svy:prop emo_ill
* Weighted N
svy:total cob, over(emo_ill)

* Able to get medication
tab1 rx_access
svy:mean rx_access
svy:total cob, over(rx_access)

* 3 days med supply
tab1 rx3days
svy:mean rx3days
svy:total cob, over(rx3days)

* 3 days food supply
tab1 food3days
svy:mean food3days
svy:total cob, over(food3days)
* Population
svy:total people_post, over(food3days)
```

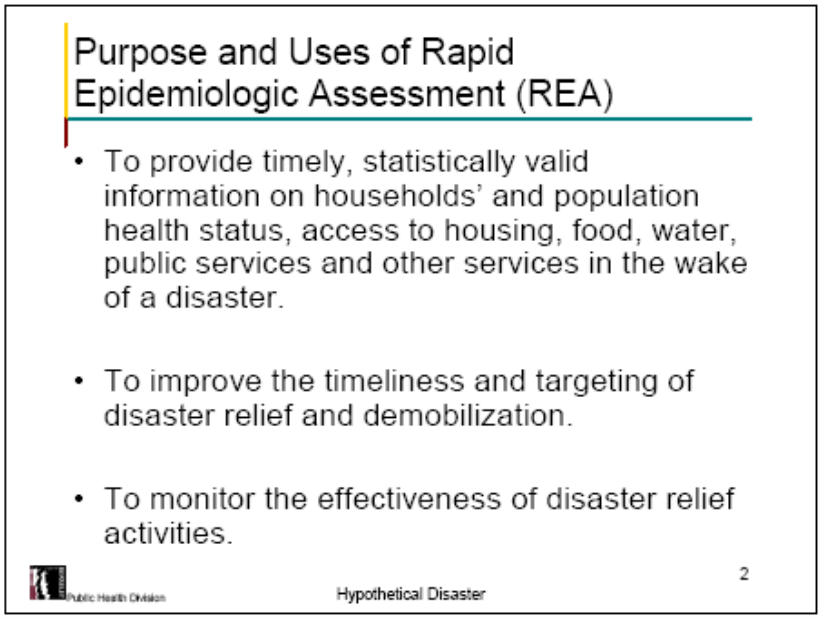
```
* Not able to take care of themselves/dependents due to emotional
problems
tab1 emotional
svy:mean emotional
svy:total cob, over(emotional)

* Have network of social support
tab1 soc_sup
svy:mean soc_sup
svy:total cob, over(soc_sup)

* Pets at home
tab1 pets
svy:mean pets
svy:total cob, over(pets)

* Birds
* Sample N
tab1 birds
* Weighted Proportion
svy:prop birds
* Weighted N
svy:total birds

* Cats
* Sample N
tab1 cats
* Weighted Proportion
svy:prop cats
* Weighted N
svy:total cats

* Dogs
* Sample N
tab1 dogs
* Weighted Proportion
svy:prop dogs
* Weighted N
svy:total dogs

* Livestock
* Sample N
tab1 livestock
* Weighted Proportion
svy:prop livestock
* Weighted N
svy:total livestock

* Rodents
* Sample N
tab1 rodents
* Weighted Proportion
svy:prop rodents
* Weighted N
svy:total rodents

* Other pets
```

```
* Sample N
tab1 other_pets
* Weighted Proportion
svy:prop other_pets
* Weighted N
svy:total other_pets

* Pets need food
tab1 pet_food
svy:mean pet_food
svy:total cob, over(pet_food)

* Pets need med
tab1 pet_med
svy:mean pet_med
svy:total cob, over(pet_med)

* Pets need a crate
tab1 pet_crate
svy:mean pet_crate
svy:total cob, over(pet_crate)

* Pets need a leash
tab1 pet_leash
svy:mean pet_leash
svy:total cob, over(pet_leash)

* Received disaster relief
tab1 dis_relief
svy:mean dis_relief
svy:total cob, over(dis_relief)
* Population
svy:total people_post, over(dis_relief)

* Reason for not getting disaster relief
* Sample N
tab1 no_dis
* Weighted Proportion
svy:prop no_dis
* Weighted N
svy:total cob, over(no_dis)

* Greatest Need
* Weighted Proportion
svy:prop greatest_need
* Weighted N
svy:total cob, over(greatest_need)
* Sample N
tab1 greatest_need
* Population
svy:total people_post, over(greatest_need)

* list other_need if other_need ~=""

* Other Need
* Sample N
tab1 other_need
```

```
* Weighted Proportion
svy:prop other_need
* Weighted N
svy:total cob, over(other_need)

list comments if comments > ""

* Delete temporary file
erase block_activity_data.dta
log off
```

K. Presentation to management of the Emergency Operations Center (EOC)





Methods

- On 9/14/2011, interview teams went to 30 randomly selected blocks in the disaster area
- The interviewers randomly selected 7 households on each block and interviewed 1 resident per household.
- In a 5-interview, the resident was asked about food, water, illness/injury, utilities and other services, and their health
- A total of 210 households were interviewed.

Public Health Division Hypothetical Disaster 3

Map of Blocks Surveyed

Public Health Division Hypothetical Disaster 4

Results: Number and Percent of Berkeley Households' and Residents' Post-Disaster Status on Food/Water, Shelter, and Services

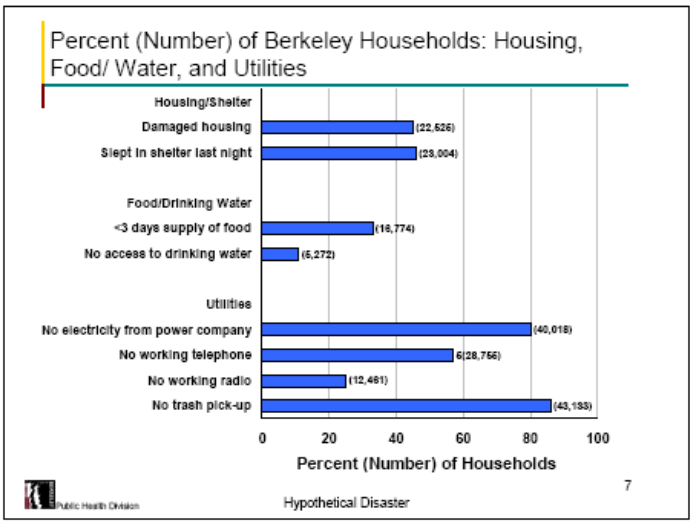
	Households		Population	
Characteristic	Percent	N	Percent	N
Total	100	50,322	100	91,538
Housing/Shelter				
Damaged housing	45	22,525	45	40,976
Slept in shelter last night	46	23,004	46	41,935
Food/Drinking Water				
<3 days supply of food	33	16,774	65	59,188
No access to drinking water	11	5,272	11	10,304
Utilities				
No electricity from power company	80	40,018	81	74,045
No working telephone	57	28,755	55	50,562
No working radio	25	12,461	25	22,765
No trash pick-up	86	43,133	86	79,077

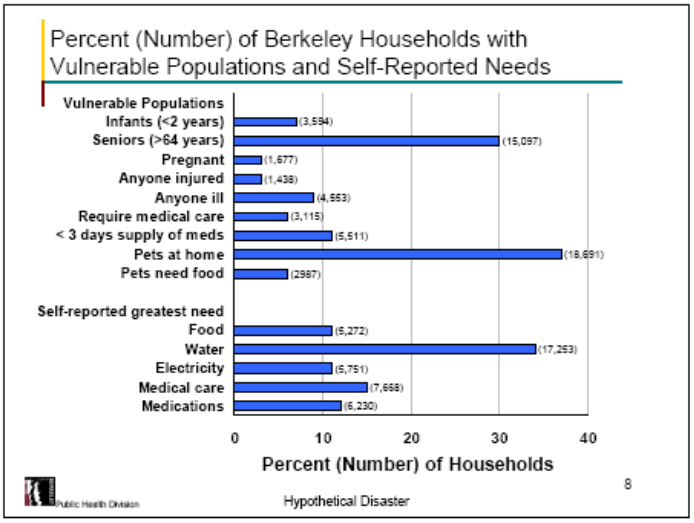
Public Health Division Hypothetical Disaster 5

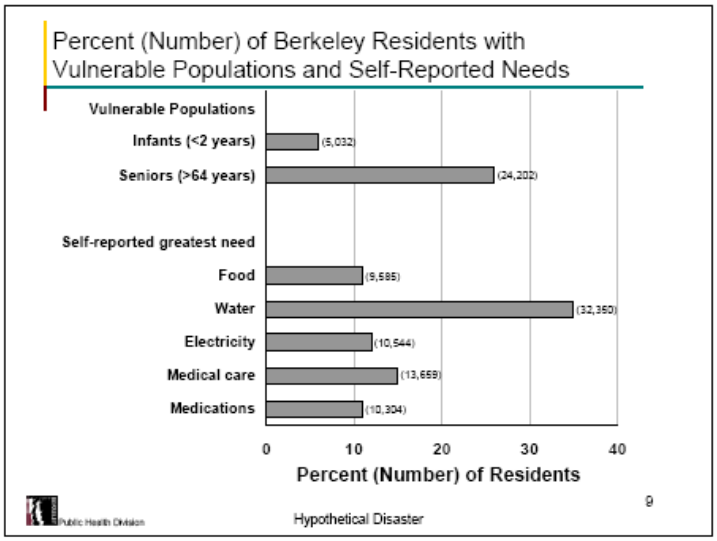
Results: Number and Percent of Berkeley Households' and Residents' Post-Disaster Status on Food/Water, Shelter, and Services

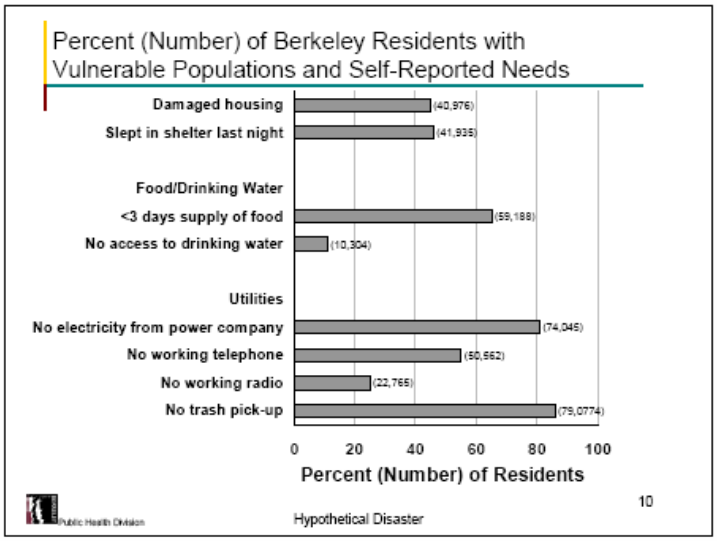
	Households		Population	
Characteristic	Percent	N	Percent	N
Vulnerable Populations				
Infants (<2 years)	7	3,594	6	5,032
Seniors (>64 years)	30	15,097	26	24,202
Pregnant	3	1,677		
Anyone injured	3	1,438		
Anyone ill	9	4,553		
Require medical care	6	3,115		
< 3 days supply of meds	11	5,511		
Pets at home	37	18,691		
Food	6	2,876		
Self-reported greatest need				
Food	11	5,272	11	9,585
Water	34	17,253	35	32,350
Electricity	11	5,751	12	10,544
Medical care	15	7,668	15	13,659
Medications	12	6,230	11	10,304

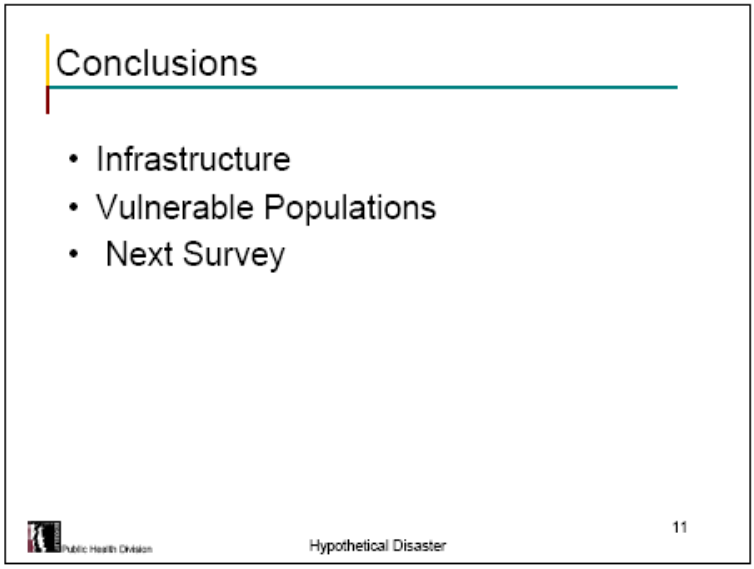
Public Health Division Hypothetical Disaster 6


Percent (Number) of Berkeley Households: Housing, Food/ Water, and Utilities
Housing/Shelter
Damaged housing
(22,626)
Slept in shelter last night
(23,004)
Food/Drinking Water
<3 days supply of food
(16,774)
No access to drinking water
(6,272)
Utilities
No electricity from power company
(40,018)
No working telephone
(28,756)
No working radio
(12,461)
No trash pick-up
(43,133)
0
20
40
60
80
100
Percent (Number) of Households
7
Public Health Division
Hypothetical Disaster


Percent (Number) of Berkeley Households with Vulnerable Populations and Self-Reported Needs
Vulnerable Populations
Infants (<2 years)
(3,594)
Seniors (>64 years)
(15,097)
Pregnant
(1,677)
Anyone injured
(1,438)
Anyone ill
(4,553)
Require medical care
(3,115)
< 3 days supply of meds
(5,511)
Pets at home
(18,691)
Pets need food
(2987)
Self-reported greatest need
Food
(5,272)
Water
(17,253)
Electricity
(5,751)
Medical care
(7,668)
Medications
(6,230)
0
10
20
30
40
Percent (Number) of Households
8
Public Health Division
Hypothetical Disaster


Percent (Number) of Berkeley Residents with Vulnerable Populations and Self-Reported Needs
Vulnerable Populations
Infants (<2 years)
(5,032)
Seniors (>64 years)
(24,202)
Self-reported greatest need
Food
(9,585)
Water
(32,350)
Electricity
(10,544)
Medical care
(13,659)
Medications
(10,304)
0
10
20
30
40
Percent (Number) of Residents
9
Public Health Division
Hypothetical Disaster


Percent (Number) of Berkeley Residents with Vulnerable Populations and Self-Reported Needs
Damaged housing
(40,976)
Slept in shelter last night
(41,935)
Food/Drinking Water
<3 days supply of food
(59,188)
No access to drinking water
(10,304)
Utilities
No electricity from power company
(74,045)
No working telephone
(50,562)
No working radio
(22,765)
No trash pick-up
(79,0774)
0
20
40
60
80
100
Percent (Number) of Residents
10
Public Health Division
Hypothetical Disaster


Conclusions
• Infrastructure
• Vulnerable Populations
• Next Survey
Public Health Division
Hypothetical Disaster
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