3MC Conference 2016

Telephone Sampling in the MENA: Issues and Advancements

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Why this research?

- Importance of Sampling in CATI surveys
- Increase knowledge of sampling options in MENA region
- Outline advantages and issues (Change F2F → Phone)
- Collect past experience from sampling projects
- Create a follow-up agenda with issues and possible solutions

Scope of the research: MENA & CATI

Data Collection Modes:

Face-to-Face Surveys

Mail Surveys

Online Surveys

Telephone Surveys
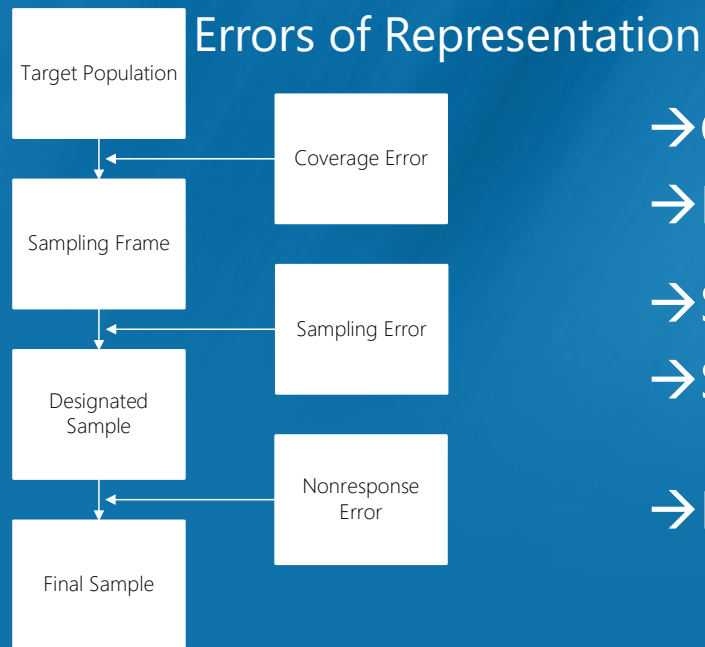
SMS Surveys

Mixed Mode etc.

Why CATI surveys in the MENA region?

Country	Mobile Subscriptions [%]	Landline Subscriptions [%]
Egypt	114.31	7.57
Iran	87.79	39.06
Kuwait	218.43	14.20
UAE	178.06	22.26
Libya	161.12	11.30
Oman	157.75	9.56
Qatar	145.76	18.41
Saudi Arabia	179.56	12.33
Syria	63.86	16.57
Tunisia	128.49	8.54
USA	110.20	39.83
UK	123.58	52.35
Germany	120.42	56.89

Methodology: Total Survey Error

Errors of Representation

→Coverage Error

→Numbering Plan

→Sample Creation
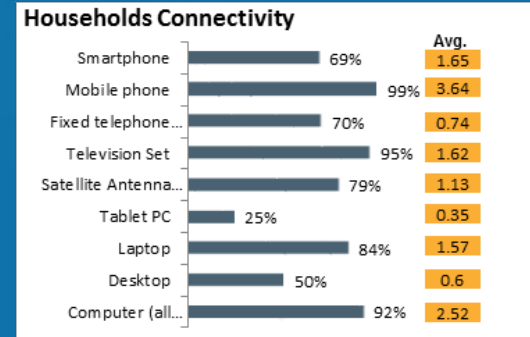
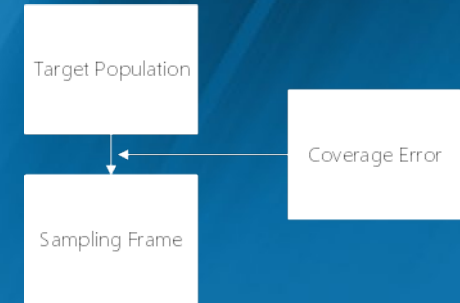→Screening of Sample

→Fieldwork Results

Coverage

- Target Population:

National Representative / Area Sampling

- Coverage Error: No Mobile / Landline

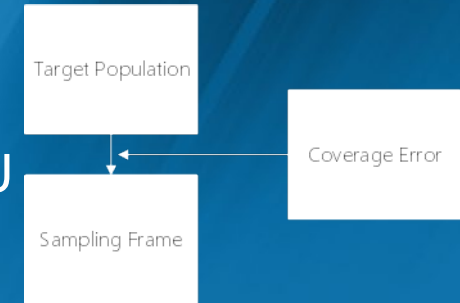$$\bar{Y}_{tel} - \bar{Y}_{total} = \frac{N_{NT}}{N}(\bar{Y}_{tel} - \bar{Y}_{nontel})$$

1. Bureau of Statistics
2. Face-to-Face Survey
3. Estimation

Households Connectivity

		Avg.
Smartphone	69%	1.65
Mobile phone	99%	3.64
Fixed telephone…	70%	0.74
Television Set	95%	1.62
Satellite Antenna…	79%	1.13
Tablet PC	25%	0.35
Laptop	84%	1.57
Desktop	50%	0.6
Computer (all…	92%	2.52

Coverage

- Methods for estimating landline ownership
- Landline / Mobile Penetration statistics from ITU
- Example KSA:
- 4.1M LL subscriptions - Average HH size: 6.4
- Assuming 10% business subscriptions
- → Estimate 23.7 M people →76.5% (79% in fact)

Target Population

Coverage Error

Sampling Frame

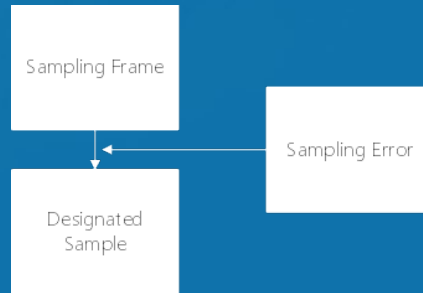International Telecommunication Union

Numbering Plan

- Open / Closed Numbering Plan
- Open Numbering Plan: SN Varying Length
- Documentation differs per country

Name of Region	Area Code	Numbering Range
East Cairo (Region 1)	0 2	23100200-23100399
		23130000-23131999
		23132000-23137499
		24660000-24664159
		24690000-24690511
West Cairo (Region 3)	0 2	25466000-25466649

CC
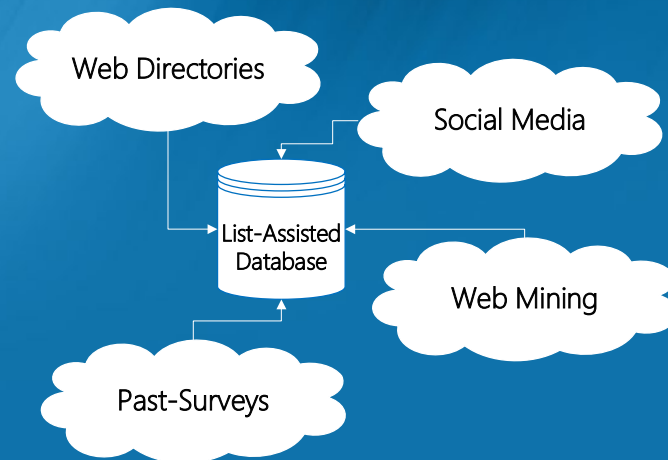
NDC

SN

Sampling Frame

Sampling Error

Designated Sample

Numbering Plan: List-assisted

- Open numbering plan / billions of possible combinations

- Creation of auxilary sampling frame:
A. Seed numbers (landline & mobile)
B. Provider lookup (mobile only)

Web Directories

Social Media

List-Assisted Database
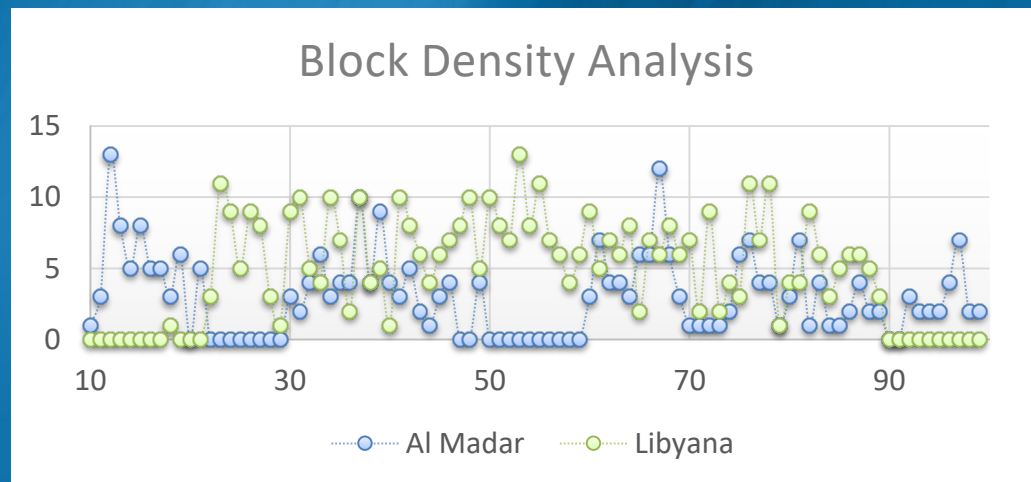
Web Mining

Past-Surveys

Numbering Plan: List-assisted

- Open numbering plan / billions of possible combinations

- Creation of auxiliary sampling frame:
A. Seed numbers (landline & mobile)
B. Provider lookup (mobile only)

→ Seed numbers: Social Media, directories, web mining
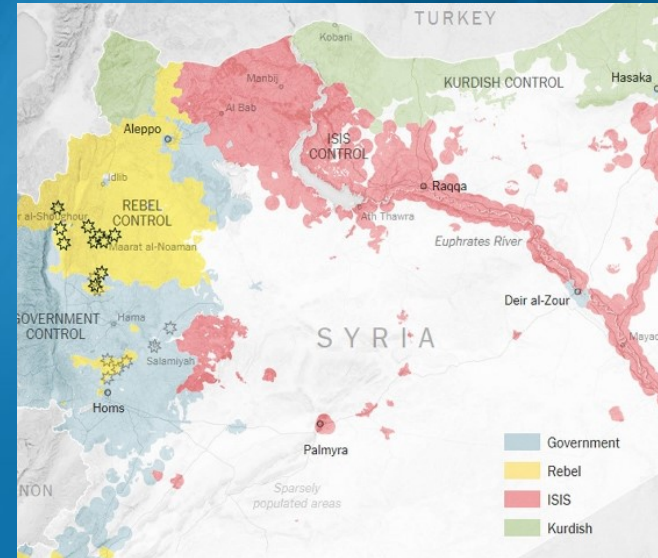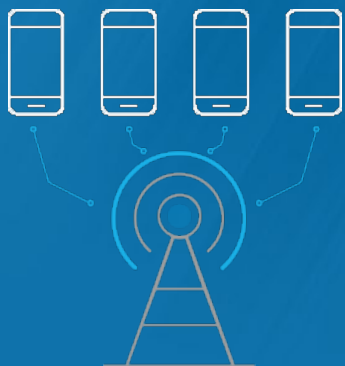

Block Density Analysis

Sample Creation

- Simple Random Sampling
- Stratified Random Sampling
- Geocoding

- Case Syria:
- Stratified Random Sample
- Geocoding City / Fraction

Screening of Sample

Mobile
→ Provider Lookup

Landline
→ Dialer

- Mobile Screening very effective: check for active SIM cards
- Landline numbers have issues with connectivity – possibility to exclude numbers that are working
→ Include batch of non-working sample batches
- People with multiple phones
→ Sampling Error

Fieldwork Results: General SAPS

→ Ratios Mobile vs. Landline

→ Response rates

~25% of sample unclear Disposition

→ Influence on RR.

→ Structured Sampling Frames

→ Mobile screening accurate

→ Issues remain with LL

Country	Mobile	Landline
Bahrain	70% (n=700)	30% (n=300)
Kuwait	60% (n=600)	40% (n=400)
Oman	50% (n=500)	50% (n=500)
Qatar	50% (n=500)	50% (n=500)

Country	Oman	Bahrain	Qatar	Kuwait
Completes	N=1008	N=1005	N=1002	N=999
Net Effective Incidence	10,8%	6,1%	6,4%	5,3%
Response Rate	3,8%	5,3%	4,9%	5,0%
Cooperation Rate	7,0%	7,5%	7,5%	6,4%
Refusal Rate	50,9%	65,2%	60,8%	72,5%
Contact Rate	56,7%	72,3%	67,9%	80,3%

Fieldwork Results: Countries in turmoil

- RDD Dual Frame suitable?
- Mobile provided good coverage
- Landline: Affected city issues
→ 40% of respondents have LL

Sample Results: Libya

	Landline		Mobile	
Disconnected	9491	96,2%	18023	62,1%
Unknown	327	3,3%	608	2,1%
Working	43	0,4%	10399	35,8%
	9861		29030	

Sample Results: Syria

Province	Total	Contact %	Sampling %
Aleppo	11	0,9	23,8
Alhasakah	153	12,4	7,5
Al-Quneitra	8	0,6	0,4
Al-rakkah	4	0,3	4,7
Al-Swedaa	78	6,3	1,8
Damascus	357	28,5	13,4
Damascus city	42	3,4	9,1
Dara	63	5,1	5,0
Edleb	6	0,5	7,4
Hamah	122	9,8	8,2
Homs	2	0,2	9,0
Latakia	212	17,1	5,2
Quneitra	4	0,3	0,4
Tartous	191	15,4	4,1
Grand Total	1253	100,0	100

Looking ahead and Takeaways

- Sampling Frames not an issue but numbering screening / disposition codes remain challenging. → Predictive Dialer

- Information on numbering plan varies: Assigned numbers, screening options, geocoding possibilities

- Increased importance of mobile phones

- Separate Fieldwork and Sampling

- Request Documentation (prevent clustering, public listings etc)

- Central Database: Information on Sampling

Premier. Sample. Provider.
Sample Solutions