



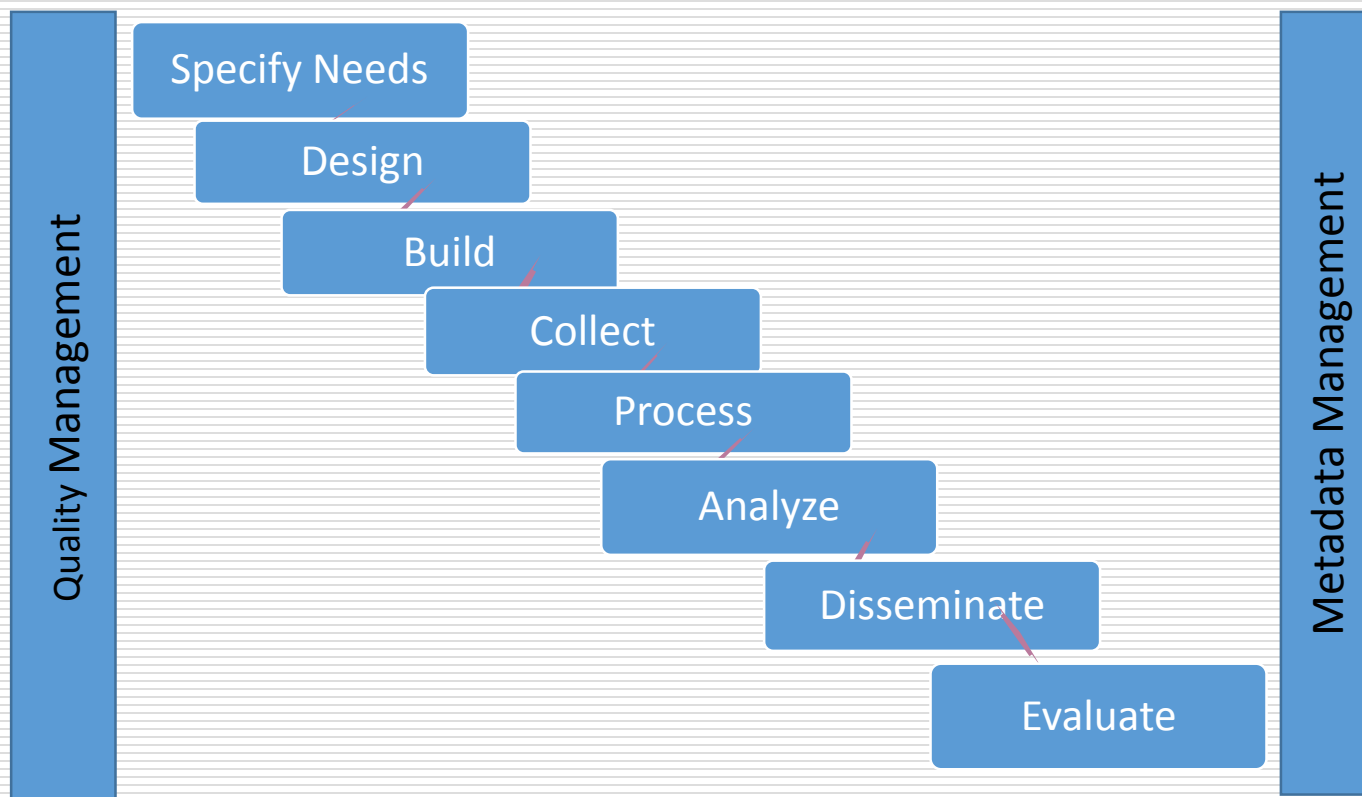
Planning and Designing Data Collection on Disability: Data Quality Considerations

Meryem Demirci
United Nations Statistics Division



Generic Statistical Business Process Model

Any kind of statistical operation, censuses, surveys, administrative registers



Source: Generic Statistical Business Process Model GSBPM, Version 5.0, the UN Economic Commission for Europe, on behalf of the international statistical community, Dec-2013



Determining objectives and expected outputs

- ❑ Research objectives- Why data is needed ?
 - ❑ Expected outputs –What information will be collected ?
 - People with disabilities by:
 - Types and causes of disability
 - Geographic area- small geography/region/urban/rural
 - Demographic characteristics; Living arrangement; Education; Employment status and Occupation;
 - Environmental conditions
 - Data on people without disabilities ? What information?
 - User consultation
 - Checking data availability
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Key considerations for designing statistical process

Questionnaire design and translation

Factors affecting the design

- Mode of enumeration -Face-to-face and/or Self-interview
- Whether technology will be used for data collection- Handheld devices and/or Internet
- Data capture technology- Manual data capture or scanning
- Translation taking into account cultural and psychosocial Influences

Testing, testing, testing !!



Example of census questionnaire-Individual questionnaire

39. ACTIVITY OF THE COMPANY, ENTERPRISE, SHOP, CRAFT, ETC. (FOR PERSONS EMPLOYED OR WHO WERE EMPLOYED)

NAME OF THE COMPANY, ENTERPRISE, SHOP, CRAFT, ETC.

40. PLACE OF WORK/EDUCATION (ONLY TO BE ANSWERED BY PERSONS WHO ARE CURRENTLY EMPLOYED OR ATTENDING SCHOOL)

In Banks and Hierarchical: 1) { SETTLEMENT
 MANICIPLE
 STATE

Abroad: 2) { STATE
 COUNTRY

41. MEANS OF DAILY TRANSPORT TO WORK/SCHOOL (NO MORE THAN 2 ANSWERS)

Car 1) Bus 2) Train 3) Trolleybus 4) Tram 5)
 Motorcycle 6) Bicycle 7) Walk 8) Other 9) Does not travel 0)

42. MAIN SOURCE OF LIVING IN THE LAST 12 MONTHS

Salary or other compensation from employment, except agriculture 1)
 Income from agriculture 2)
 Income from renting apartment, land, business premises or other property, or income from property rights 3)
 Pension 4)
 Sick leave or maternity leave pay 5)
 Financial compensation benefits for persons who lost their jobs (due to bankruptcy, redundancies, etc.) 6)

43. SUPPORTER/FINANCIAL PROVIDER OF THE ENUMERATED PERSON

Person who performs non-agricultural occupation 1)
 Person who performs agricultural occupation 2)
 Related person 3)

44. DOES THE PERSON EXPERIENCE ANY DIFFICULTIES IN PERFORMING BASIC ACTIVITIES AT HOME, AT WORK OR IN SCHOOL (MARK ONE OR SEVERAL ANSWERS)

a) Type of difficulty
 Seeing, even with the use of glasses 1)
 Hearing, even with the use of hearing aids 1)
 Walking or going upstairs 1)
 Remembering or concentrating 1)
 Dressing and bathing 1)
 Communication (understanding other people) 1)

b) Degree of difficulty
 no difficulties 1)
 has, minor 2)
 has, greater 3)
 fully disable 4)

c) Cause of difficulty (answer to be given for each type of difficulty)
 congenital 1)
 labor injury 2)
 illness 3)
 injury at work 4)
 traffic accident 5)
 war consequences 6)
 other 7)

45. DOES THE PERSON WITH DIFFICULTIES NEED ASSISTANCE OF OTHER PERSON (TO BE ANSWERED BY PERSONS HAVING PROBLEMS MENTIONED UNDER QUESTION 44)

Yes 1) No 2)

46. WHO PROVIDED DATA
 Signature 1) 2) 3)

Bar Code

Relationship to the head of household Family ordinal number Status of a family member

Example of Individual
Questionnaire



Key considerations for designing statistical process

- ❑ Training programme
 - More stages in training, more risks for losing information at final stage
 - Less attention on additional topics, more possibility for errors in data
 - Covering more topics in one survey, more confusion in definitions and concepts

- ❑ Data collection
 - Electronic data collection for surveys- and census?
 - How to monitor the quality of the work of interviewers? Quality assurance procedures during the field work
 - Management information system –what information is needed to check data quality on disability, who will collect, who will analyze?
 - Data quality control for selected households



Key considerations for designing statistical process

Data processing and Validation:

- ❑ Data entry- In the field or in the office –special procedures for data quality
 - ❑ Coding - In the field or in the office
 - ❑ Dealing with missing data (unknown or refusal)
 - Having a separate field for unknown?
 - Missing data should be coded to make distinguishable in database
 - Decision on imputation or leaving as unknown ?
 - Accepting missing data as people with no disabilities creates bias on results
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Key considerations for designing statistical process

Imputation, Validation and Analysis:

- ❑ Editing/imputation for inconsistency and missing data
 - Imputation rules and validation - considering differences with people without disabilities
 - Analysis of impacts of imputation on original dataset
 - ❑ Validation of data
 - Systematic Quality Control during data processing
 - Comparison with other relevant data sources
 - Evaluation of unexpected pattern/results
 - ❑ Difficulties in comparison of different sources-mainly censuses and surveys- are main challenge for data analysis
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Key considerations for designing statistical process

Dissemination

- ❑ How to improve accessibility and utilization
 - Online dissemination
 - Interactive electronic outputs
 - Geographic products using GIS
 - Thematic reports- for censuses and surveys with model questionnaire
 - Micro data
 - Metadata
- ❑ Developing a programme for introducing results on disability -national and regional level

Evaluation

- Methods of evaluation of data quality and the quality of operational process
- Evaluation report for assessment of quality and lessons learned for future activities



Some suggestions and discussion points for the Guidelines

- ❑ Clear understanding of objectives of study and expected outputs – *decision on appropriate data source*
 - ❑ Developing a national statistical programme on disability - *improve coherence between data sources –types of data/timeliness/cost effectiveness*
 - ❑ Establishing a long term user consultation programme – *for better understanding of needs of different types of users*
 - ❑ Clarification of criteria used for identifying people with disabilities – *any special group for inclusion in or exclusion from people with disabilities ??*
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Some suggestions and discussion points for the Guidelines

- ❑ Benefits of using electronic data collection technologies for improving data quality including coverage of people with disabilities
 - ❑ More emphasize on the importance of testing questionnaire and procedures
 - ❑ Instructions for dealing with missing data not to create bias for disability prevalence
 - ❑ Better information on online dissemination tools for improving availability and accessibility
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