

Does data quality explain the differences in the current global estimates for mortality and education?

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Wiesbaden, May 28, 2004



How coherent is the data published by International Organizations?

- It depends on the subject
- Some subjects are more than others
- At a different times
- For different indicators
- Overall awareness

Which factors affect data coherence?

- **Data quality**
- **Political issues**
- **Existence of different data bases**
- **Use of different methodologies for estimation**
- **Different interpretations of those data bases and results**
- **Different schedules and priorities for reporting**

Objectives of this presentation!

- Illustrate data quality issues for mortality and education indicators: U5MR, NER
- Examine the importance of other factors
- List a set of recommendations to improve data coherence

Under 5 mortality rate (U5MR)

- Low coherence in the existing U5MR
- WHO and UNICEF U5MR estimates differ in 10% or more for 85 of the 190 countries

Why the differences?

- Characteristics of the data used
- Methods of estimation
- Type of adjustments
- Use of predicted values
- Timing of the publication

Characteristics of the data used

- Vital registration and household surveys
 - Uzbekistan (2001): WHO=32, UNICEF=68
- Definition of **live birth** (WHO vs Soviet)
- RECOMMENDATION:

Current efforts to coordinate estimates

Methods of estimation U5MR

- The ideal method using based on vital events (births and deaths registration)
- Direct and Indirect methods
- Capacity building issue at both:
 - Country levels and for
 - International organizations

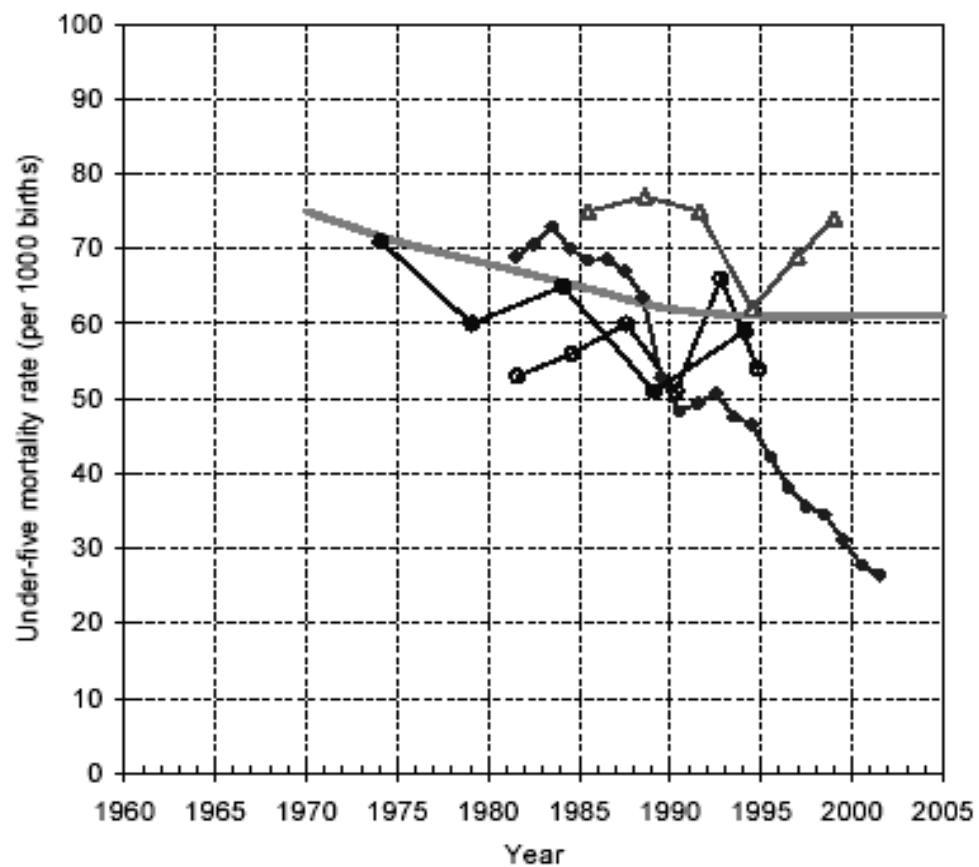
Type of adjustments

- Internal and external consistency
- Adjustment using statistical models
- Disadvantages for countries: ownership
- **RECOMMENDATION:** interagency coordination with country officials

Use of predicted values

- Interpolation/extrapolation
- Values can be different from:
 - Original data
 - Country values
 - Other agencies estimates (different weights)
- **RECOMMENDATION:** interagency coordination with country officials

UZBEKISTAN - UNDER-FIVE MORTALITY



◆ WHO VR ◆ DHSd96 ◆ DHSi96
 ▲ MCSi00 — EST

Timing of publications

- The use of more up to date estimate
 - UNICEF (SOWC) → November
 - WHO (WHR) → March
 - WB (WDR) → April

Primary Net Enrolment Ratios (NER)

- There are differences in NER/NAR levels and differentials
- Do we want to know enrolment or attendance?
- Differences on the total estimates for children out of primary school

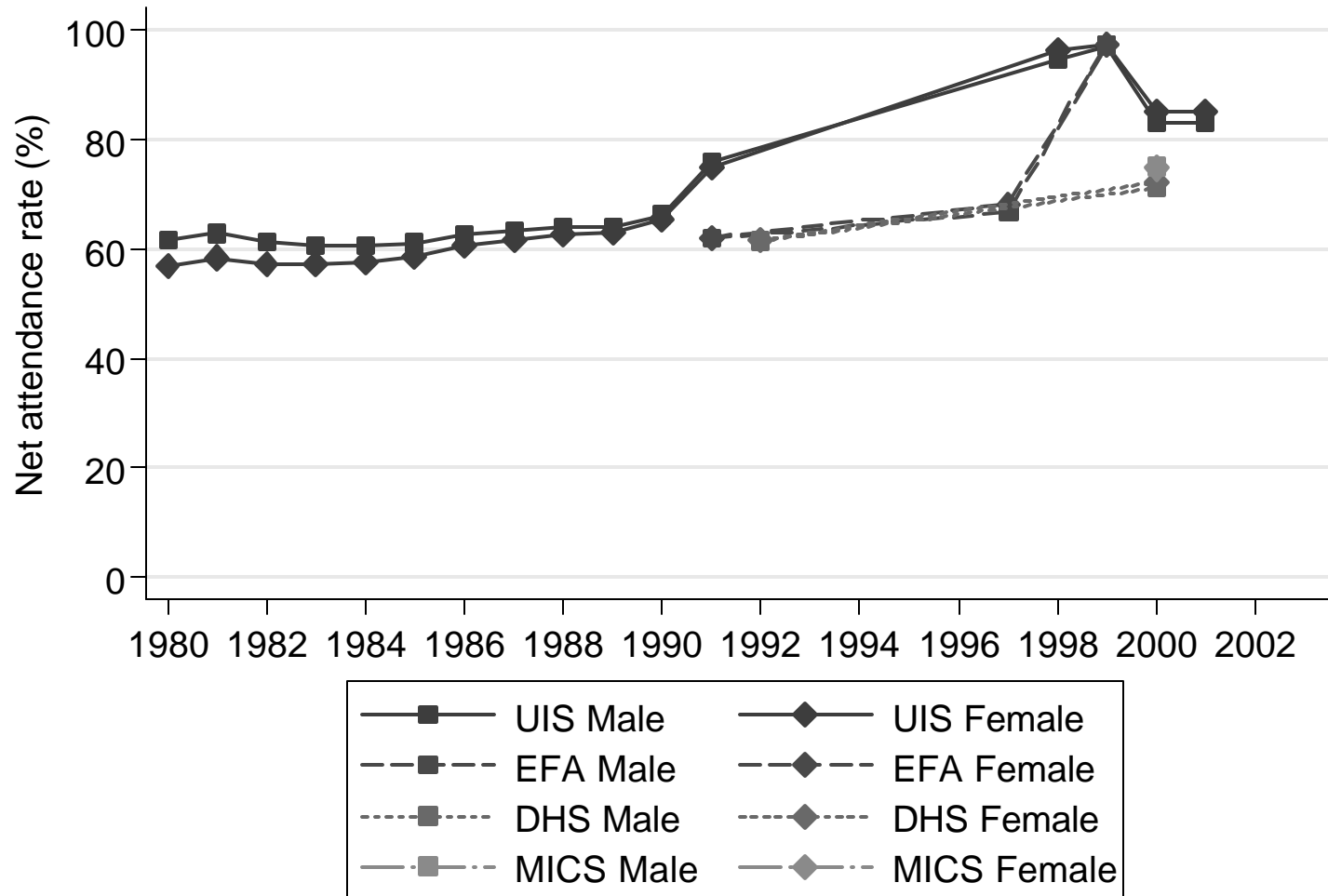
Why the differences?

- Data sources
- Methods of estimation
- Type of adjustments
- Timing of the publication

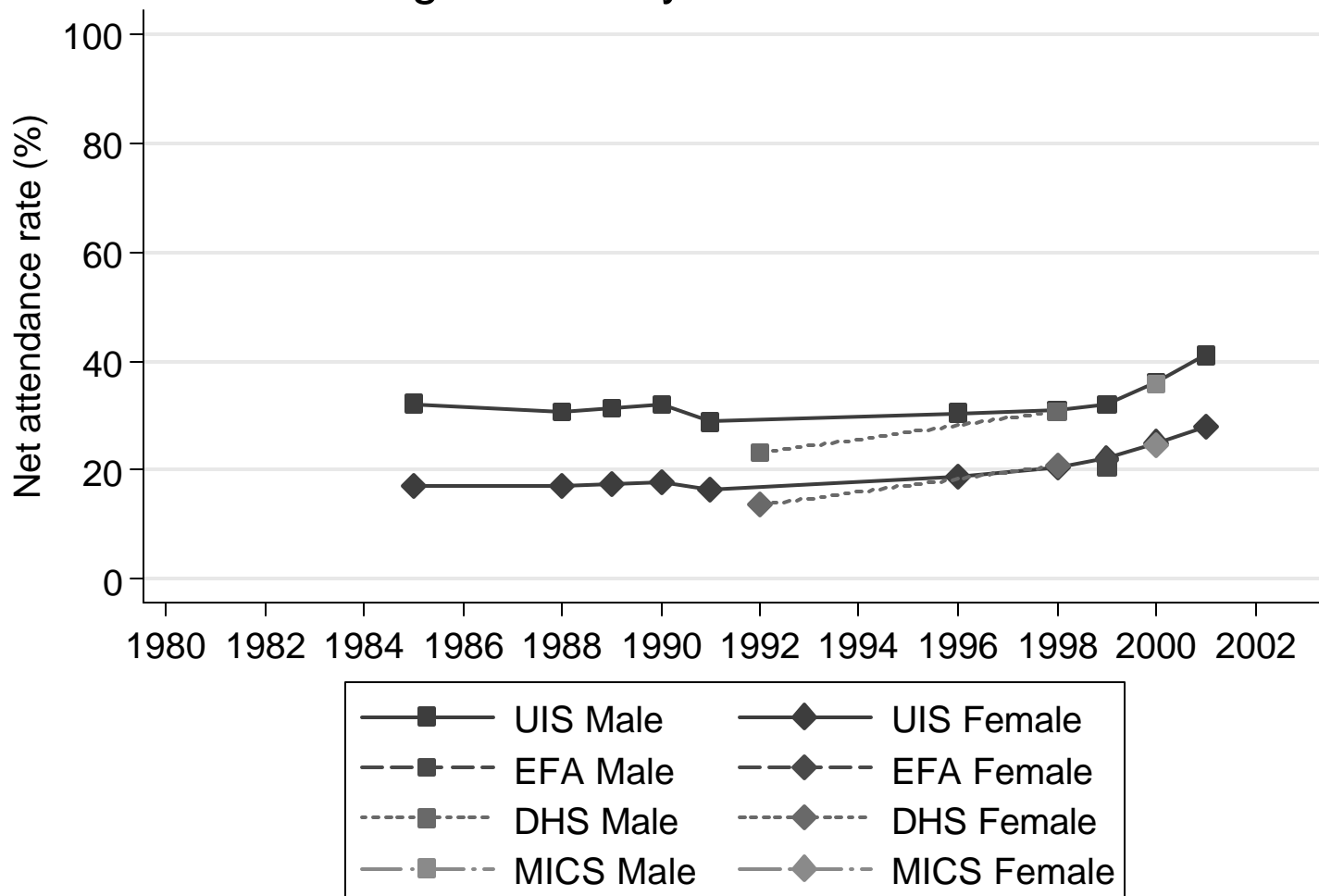
Data sources

- NER → from administrative data
- NAR → from household surveys
- 4 graphs illustrating the similarities, differences, complementarity value and individual limitations

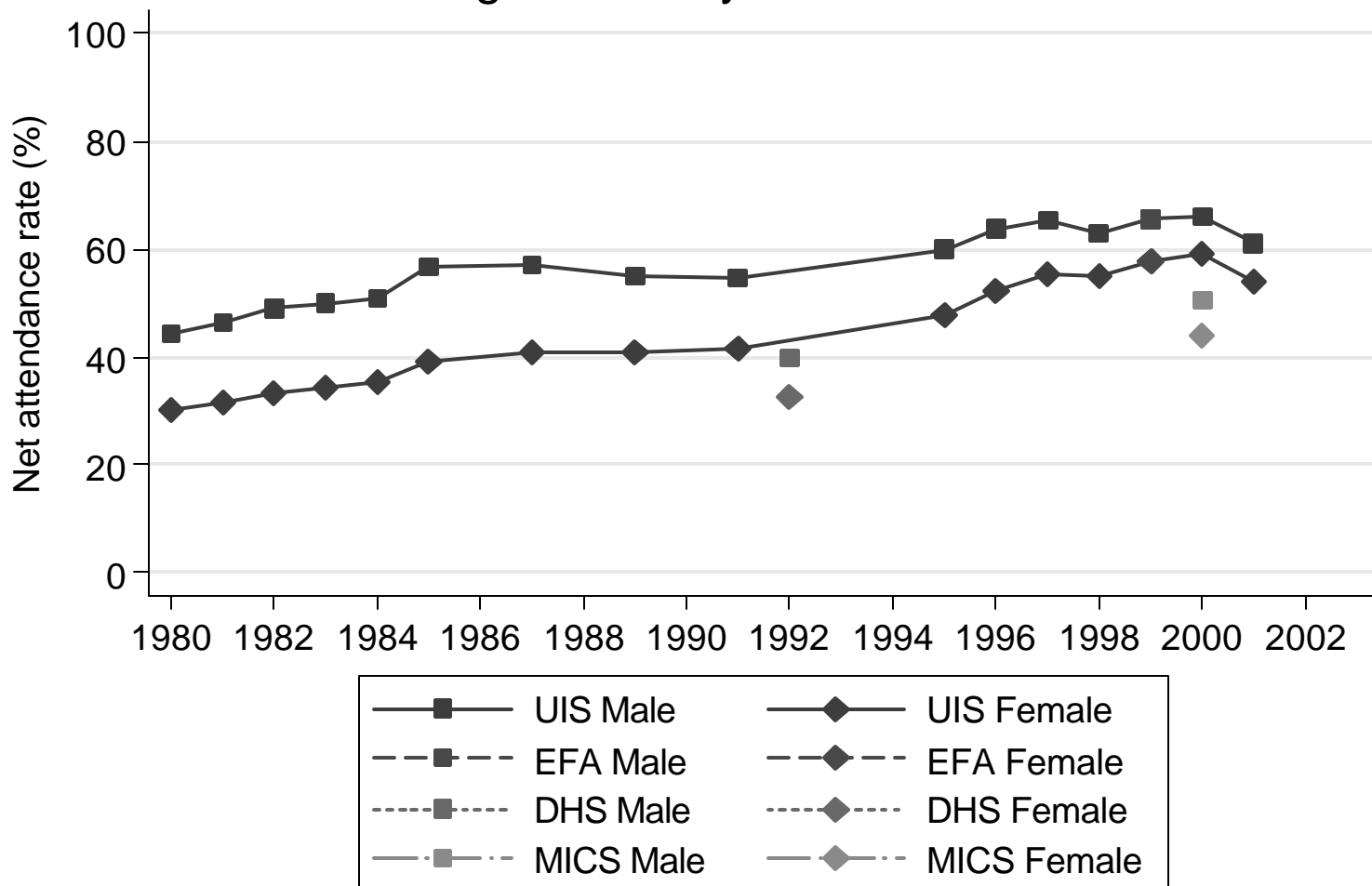
Rwanda: Primary school attendance



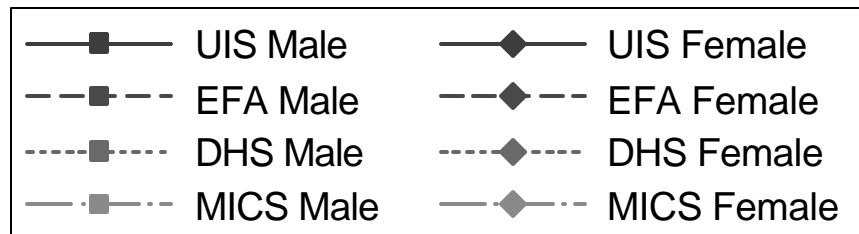
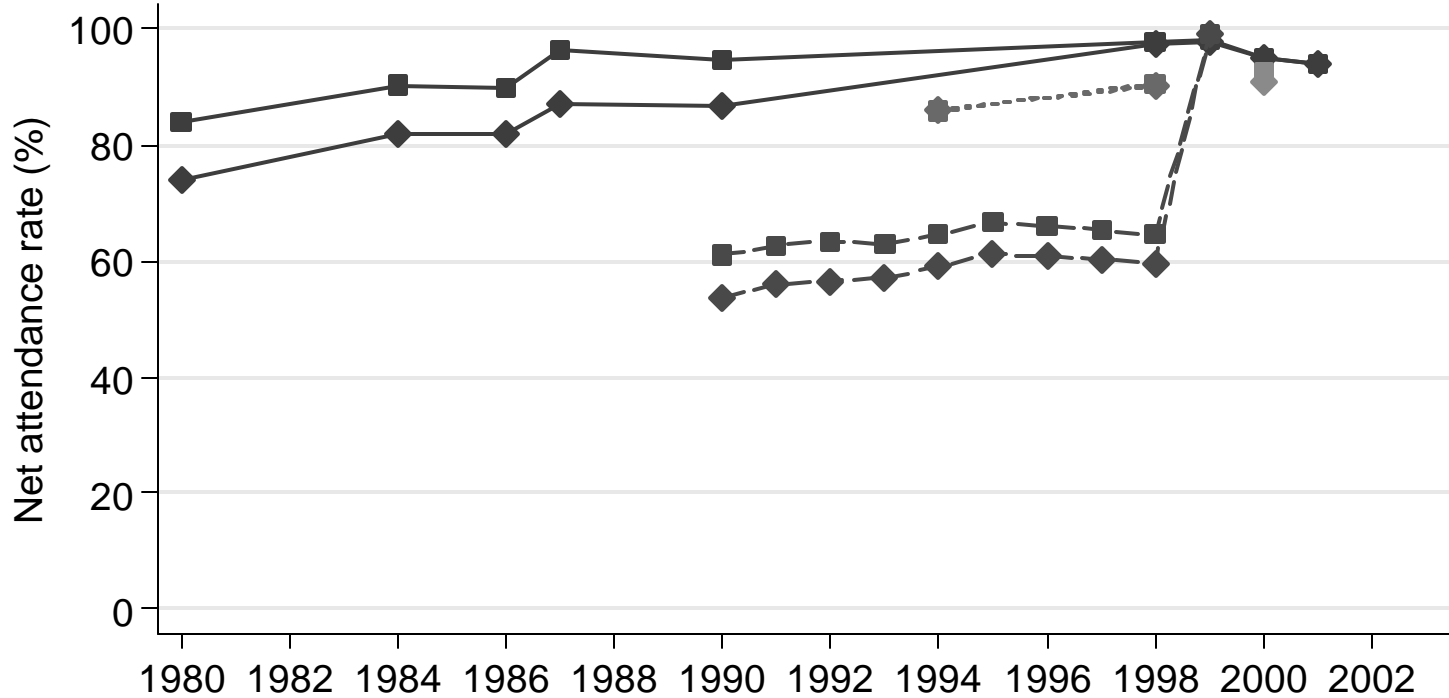
Niger: Primary school attendance



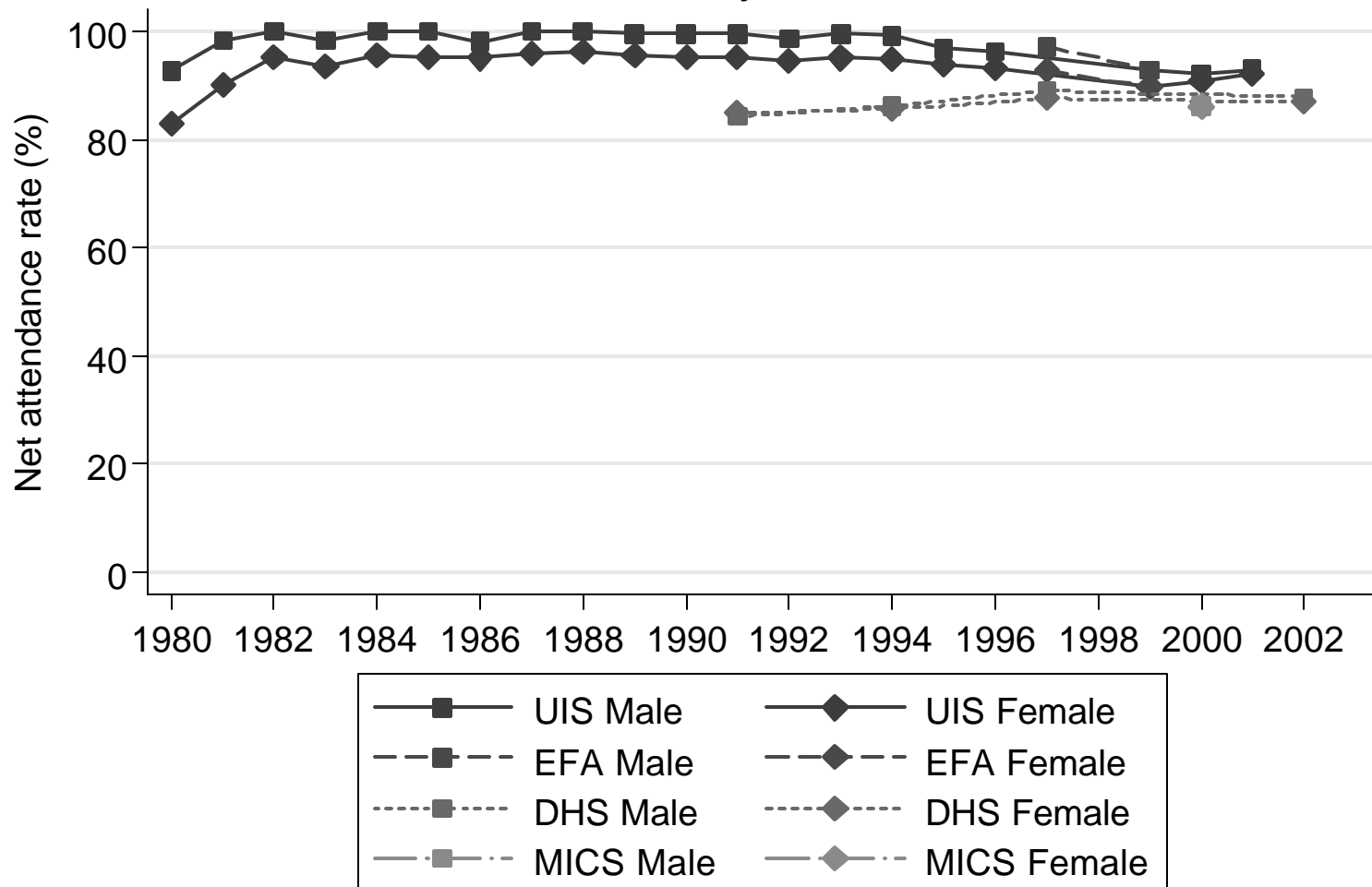
Senegal: Primary school attendance



Bolivia: Primary school attendance



Indonesia: Primary school attendance



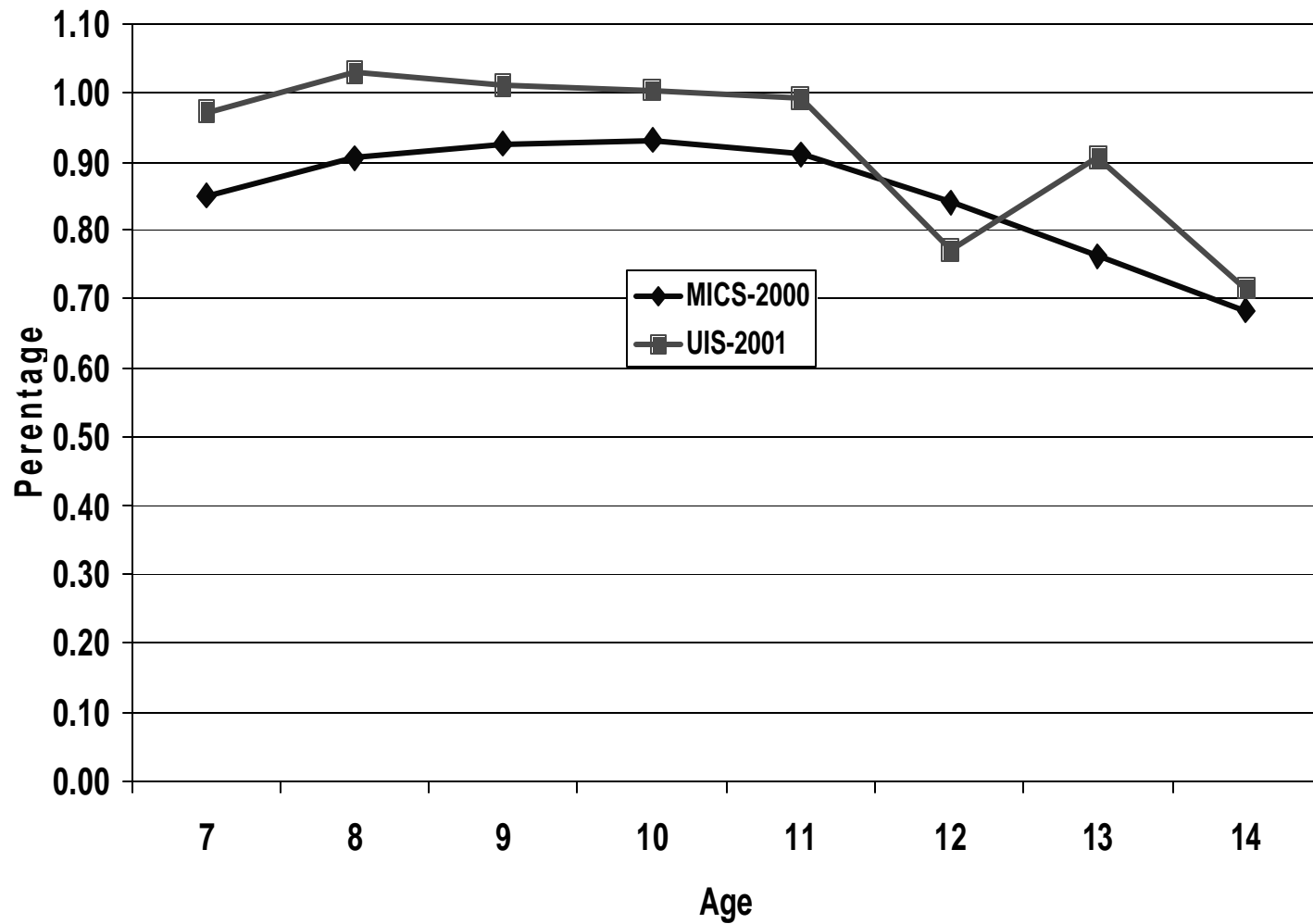
Conclusions

- Almost always $NER > NAR$ but converging
- High levels of consistency and comparability
 - Values for trend estimation
 - Good for analysis of differentials and determinants
- High levels of complementarity
- Some important differences: Rwanda, Bolivia

Methods of estimation

- NER/NAR are estimated using ISCED
- NER/NAR are summary of single ages
NER(i) or NAR(j) ratios
- Indonesia example where NER = 96%
compared to NAR = 89%
- Recommendation: greater use of HHS data
Current joint effort by UIS and UNICEF

Proportion of children attending school by age and data source. Indonesia



Type of adjustments

- Regular assessment for data quality (vac.)
- UIS usually present 3 types of estimates:
 - Country data plus UN-PD pop. Estimates
 - Country estimates
 - UIS estimates
- **Recommendation**: use of a statistical model to adjust data, minimize error estimation, obtain past current, and future estimates.

Timing of publications

- Same as with U5MR
- Year of publication is different from year of reference for the estimates
- Tendency to produce comparisons and to obtain trend analysis.
- Results reflect rather better data and or changes over time of measurement ages
- **Recommendation:** use of statistical model and of greater levels of coordination.

Summary and Recommendations

- Statistics published by international organizations are not always coherent. This seem to be case for U5MR and NER/NAR
- Differences between these estimates are associated with issues of data sources, data quality, methods of estimation, levels of analysis, and timing of the publications.

Summary and Recommendations

- Vital statistics and administrative records are the most desirable data sources to monitor levels and trends of U5MR and NER. They can be easily complemented by household survey data to improve estimates and benefits of existing routinely systems of data collection.
- The analysis illustrated these facts

Summary and Recommendations

- Improvements can also be achieved by using all available estimates, obtained from different data sources and methods
- It is also desirable to adjust existing estimates and trends to statistical models that minimize the discrepancies between estimates and allow for estimates that can easily be used by different organizations.
- One last challenge for international organizations is to include in this process of estimation government officials at the country level.

Summary and Recommendations

- Finally, the need for greater and constant coordination among international agencies to increase sharing of data sources, procedures of estimation, assessment, and coordination at the regional and country levels.
- Of particular importance is the coordination with agencies and officials in charge of producing estimation of U5MR and education indicators with emphasis on capacity building.

THANK YOU!

