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SPRING Extended Cost Effectiveness Model

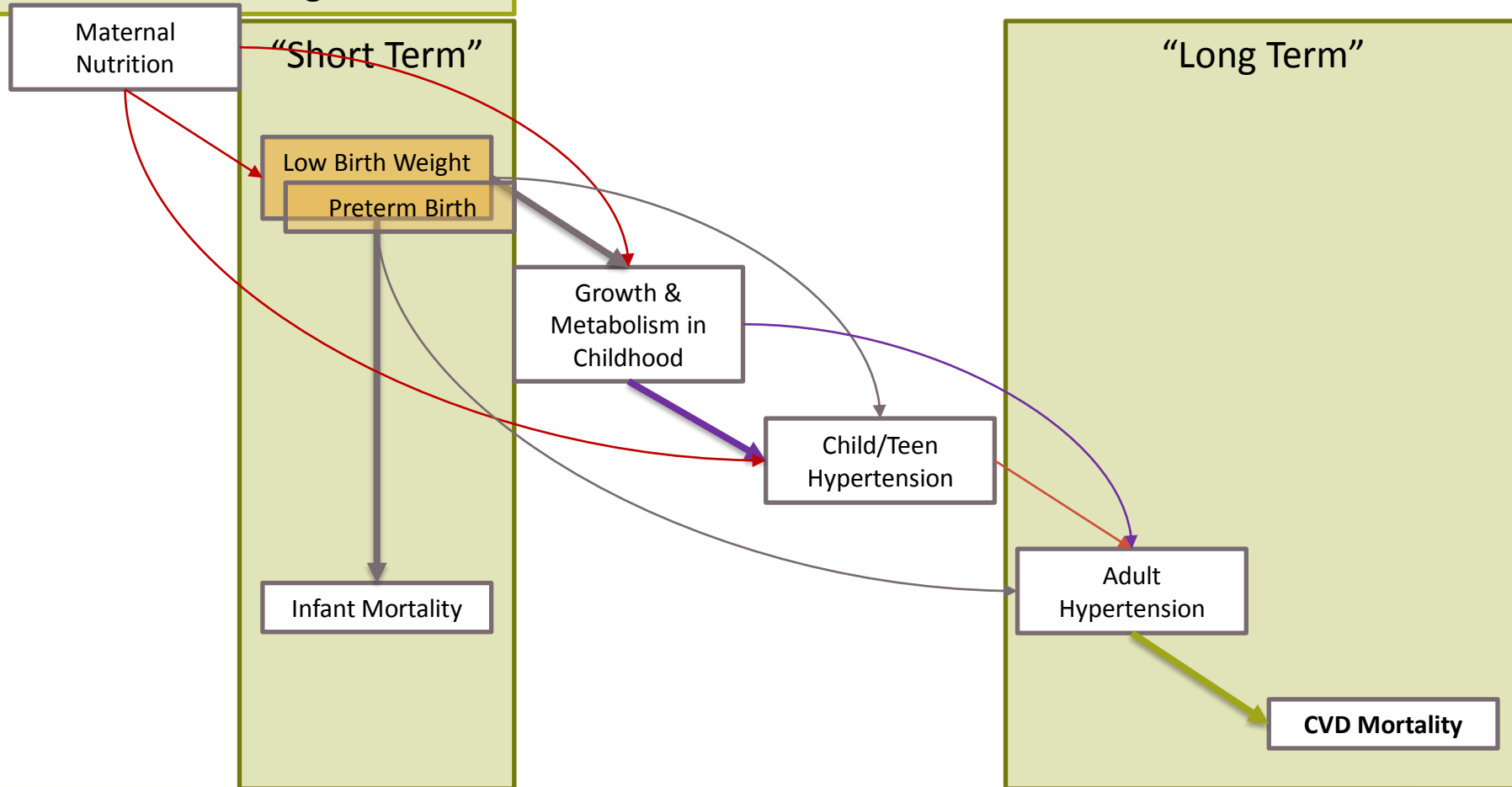
Maternal Interventions to Improve Birth Outcomes

SPRING Model Team

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Pathway & Time of Impact

“Costs” = MCH Interventions:
MMS, BPE, IPI change via FP





Data and Methods

Data

- 2011 Bangladesh base population
 - DHS, UNICEF LBW Survey, IDB, GBD, BD Life tables
 - RRs: Evidence Review

Methods

- Provider perspective
- Decision Tree/Markov model
- Epidemiological Transition
- Variable Cost Function
- One Way Sensitivity Analyses



KEY FINDINGS

- Survivorship in the short term period has a significant confounding effect on long term results
- The inclusion of long term effects produced a increase in CER, showing a non-trivial additional value on later life health outcomes
- All interventions were **cost effective** when considering just short term effects
- MMS and BPE interventions were **highly cost effective** when both short and long term effects counted; FP was possibly not.

Cost Effectiveness Ratios *

3% Discount	Low Delivery Cost	High Delivery Cost
Long- and Short-Term Benefits		
MMS	\$160.03 (\$110 – \$253)	\$437.37 (\$299 – \$530)
BPE	\$529.76	\$889.45
FP/IPI	1952.41	2722.94
Short-Term Benefits Only		
MMS	161.99	442.73
BPE	536.47	900.73
FP/IPI	1976.12	2756.01

CERs improve by \$2 to \$33/DALY with the inclusion of long term effects

*WHO threshold for **cost effectiveness**: *three times GDP per capita per DALY*. Bangladesh CER Threshold: \$2229 (**Highly cost effective would be less than GDP, \$743**). Source: World Bank 2011 GDP per capita for Bangladesh