

## Supplementary Tables

**Table S1a. Interaction analysis for social risk.**

The effect of SPIBI on NDI assessed with the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) at 24 months CA regarding social risk i.e. maternal education. Any NDI is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 0.78 (0.05 – 13.52) | 0.87    |
| Cognition <85    | 0.1 (0.01 – 1.88)   | 0.12    |
| Language <85     | 0.23 (0.01 – 3.67)  | 0.30    |
| Motor <85        | 0.51 (0.02 - 17.2)  | 0.71    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler

Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment.

Significance level was  $p < 0.05$ .

**Table S1b. Interaction analysis for Bronchopulmonary dysplasia (BPD).**

The effect of SPIBI on NDI assessed with the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) at 24 months CA regarding BPD. Any NDI is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 2.23 (0.28 – 17.97) | 0.45    |
| Cognition <85    | 0.22 (0.01 – 4.93)  | 0.34    |
| Language <85     | 1.01 (0.11 – 8.79)  | 1.00    |
| Motor <85        | 4.97 (0.46 – 53.12) | 0.18    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$ .

**Table S1c. Interaction analysis for intraventricular haemorrhage (IVH).**

The effect of SPIBI on NDI assessed with the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) at 24 months CA regarding IVH. Any NDI is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 0.49 (0.06 – 3.89)  | 0.50    |
| Cognition <85    | 6.64 (0.23 – 19.12) | 0.27    |
| Language <85     | 0.25 (0.03 – 2.51)  | 0.24    |
| Motor <85        | 0.47 (0.05 – 4.14)  | 0.50    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$ .

**Table S1d. Interaction analysis for maternal depression.**

The effect of SPIBI on NDI assessed with the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) at 24 months CA regarding maternal depression. Any NDI is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 1.05 (0.06 – 19.17) | 0.97    |
| Cognition <85    | 3.94 (0.05 – 29.99) | 0.53    |
| Language <85     | 0.47 (0.02 – 11.33) | 0.64    |
| Motor <85        | 1.92 (0.08 – 44.17) | 0.68    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p<0.05$ .

**Table S2.**

Sensitivity analysis of the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) regarding cognitive-, language- and motor development at 24 months CA, excluding children with post-haemorrhagic ventricular dilatation (PHVD). Any neurodevelopmental impairment (NDI) is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 1.25 (0.45 – 3.51)  | 0.67    |
| Cognition <85    | 1.58 (0.43 – 5.84)  | 0.49    |
| Language <85     | 1.20 (0.43 – 3.40)  | 0.73    |
| Motor <85        | 1.73 (0.58 – 5.12)  | 0.28    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$

**Table S3a.**

Sensitivity analysis of the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) regarding cognitive-, language- and motor development at 24 months CA, randomly selected one child per family in case of twins. Any neurodevelopmental impairment (NDI) is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 1.68 (0.58 – 4.87)  | 0.34    |
| Cognition <85    | 2.08 (0.60 – 7.22)  | 0.25    |
| Language <85     | 1.05 (0.37 – 2.97)  | 0.92    |
| Motor <85        | 2.99 (1.01 – 8.86)  | 0.05    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$ .

**Table S3b.**

Sensitivity analysis of the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) regarding cognitive-, language- and motor development at 24 months CA, randomly selected one child per family, other twin, in case of twins. Any neurodevelopmental impairment (NDI) is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 1.41 (0.48 – 4.10)  | 0.53    |
| Cognition <85    | 2.32 (0.67 – 8.02)  | 0.18    |
| Language <85     | 1.20 (0.41 – 3.55)  | 0.74    |
| Motor <85        | 2.22 (0.78 – 6.37)  | 0.14    |

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*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$ .

**Table S4.**

Sensitivity analysis of the Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition (Bayley-III) regarding cognitive-, language- and motor development at 24 months CA regarding primary home-based visits >50%. Any neurodevelopmental impairment (NDI) is defined as a composite score on Bayley-III <85 in either cognitive-, language- or motor development.

| Neurodevelopment | Crude OR and 95% CI | p-value |
|------------------|---------------------|---------|
| Bayley-III       |                     |         |
| Any NDI <85      | 1.73 (0.58 – 5.15)  | 0.32    |
| Cognition <85    | 2.17 (0.62 – 7.56)  | 0.22    |
| Language <85     | 1.23 (0.43 – 3.50)  | 0.69    |
| Motor <85        | 2.47 (0.85 – 7.19)  | 0.10    |

*NDI* Neurodevelopmental Impairment; *Bayley-III* Bayley Scales of Infant and Toddler Development 3<sup>rd</sup> edition; composite score <85 indicating a risk of impairment. Significance level was  $p < 0.05$ .