**Supplementary material:**

The following information is presented in addition to the main paper, “Practicality, Validity and Responsiveness of Using the Proxy Version of the CHU-9D with Children Aged 2 to 5 Years” By Sach T, Williams H on behalf of the BEEP study team.

**Table S1: Characteristics of sample**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Whole sample  (n=1394) | 2-year sample who completed CHU-9D  (n=1066) | 3-year sample who completed CHU-9D  (n=685) | 4-year sample who completed CHU-9D  (n=925) | 5-year sample who completed CHU-9D  (n=923) | Responsiveness sample  (n=801) |
| Age of mother at randomisation | | | | | | |
| Mean (SD)  Min, Max | 31.6 (5.3)  16, 46 | 32.1 (5.0)  18, 46 | 32.6 (4.5)  18, 45 | 32.4 (4.7)  18, 46 | 32.4 (4.8)  18, 46 | 32.5 (4.7)  18, 46 |
| Parental-reported number of first-degree relatives with atopic disease | | | | | | |
| 1 | 507 (36%) | 393 (37%) | 256 (37%) | 352 (38%) | 355 (38%) | 314 (39%) |
| 2 | 593 (46%) | 458 (43%) | 299 (44%) | 288 (42%) | 380 (41%) | 330 (41%) |
| 3 or more | 291 (21%) | 215 (20%) | 130 (19%) | 185 (20%) | 188 (20%) | 157 (20%) |
| Ethnicity of mother | | | | | | |
| White | 1190 (85%) | 919 (86%) | 607 (89%) | 824 (89%) | 824 (89%) | 718 (90%) |
| Asian | 85 (6%) | 65 (6%) | 35 (5%) | 50 (5%) | 49 (5%) | 41 (5%) |
| Black | 53 (4%) | 33 (3%) | 16 (2%) | 15 (2%) | 14 (2%) | 10 (1%) |
| Other | 66 (5%) | 49 (5%) | 27 (4%) | 36 (4%) | 36 (4%) | 32 (4%) |
| No other children in household at screening | 568 (41%) | 459 (43%) | 321 (47%) | 411 (44%) | 415 (45%) | 367 (46%) |
| Male Infant | 733 (53%) | 560 (53%) | 360 (53%) | 490 (53%) | 484 (52%) | 420 (52%) |
| Gestation at birth (weeks) Median (25th, 75th centile) | 40 (39, 41) | 40 (39, 41) | 40 (39, 41) | 40 (39, 41) | 40 (39, 41) | 40 (39, 41) |
| Delivery method  Vaginal Delivery  Caesarean Section | 954 (68%)  440 (32%) | 729 (68%)  337 (32%) | 475 (69%)  210 (31%) | 637 (69%)  288 (31%) | 641 (69%)  282 (31%) | 560 (70%)  241 (30%) |
| Decile of English index of multiple deprivation 2015, median (25th, 75th centile)[no. missing] | 6 (3,9)[26] | 6 (4, 9)[16] | 7 (4,9)[13] | 6 (4, 9)[21] | 7 (4,9)[18] | 7 (4,9)[14] |

**Table S2: Missing data patterns for Child Health Utility – Nine Dimensions (CHU-9D)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CHU-9D (years) | | | |  |
| 2 | 3 | 4 | 5 | Percent |
|  |  |  |  | 37% |
|  |  |  |  | 15% |
|  |  |  |  | 14% |
|  |  |  |  | 9% |
|  |  |  |  | 4% |
|  |  |  |  | 3% |
|  |  |  |  | 3% |
|  |  |  |  | 3% |
|  |  |  |  | 3% |
|  |  |  |  | 3% |
|  |  |  |  | 2% |
|  |  |  |  | 1% |
| 4 other patterns | | | | <1% |

Where black cells are observed data and white cells represent missing data.

**Table S3: Missing data patterns for Patient Oriented Eczema Measure (POEM)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| POEM (years) | | | |  |
| 2 | 3 | 4 | 5 | Percent |
|  |  |  |  | 54% |
|  |  |  |  | 28% |
|  |  |  |  | 14% |
|  |  |  |  | 7% |
|  |  |  |  | 6% |
|  |  |  |  | 6% |
|  |  |  |  | 6% |
|  |  |  |  | 5% |
|  |  |  |  | 5% |
| 7 other patterns | | | | <1% |

Where black cells are observed data and white cells represent missing data.

Table S1 reports that 37% had complete CHU-9D data at each of the four timepoints compared to 54% for the POEM (see Table S2). In contrast 14% had missing data at all four timepoints on both the CHU-9D and POEM. Table S1 also shows missingness does not seem to be related to age of the child, and more likely related to loss to follow-up.