**ICAD\_Insulin - harmonisation Notes**

*Studies (wave) with relevant data (n=8)*

ALSPAC (3,4), CoSCIS (1,2,3), EYHS Denmark (1,2), EYHS Estonia, EYHS Portugal (1,2), KISS (1,2,3), NHANES 2003-04, NHANES 2005-06

*Assessment characteristics*

Respondent: Researcher assessed (all studies)

Constructs: Fasting Insulin. All blood samples were drawn from fasting individuals unless otherwise specified.

Timing:

*Variable(s) created*

|  |  |
| --- | --- |
| **Name** | **Description / Coding** |
| **ICAD\_Insulin** | **Fasting insulin (pmol/L)**  **Coding: Missing (.)** |

Variable derived for all available waves within each study.

*Studies / waves included in each harmonised variable*

|  |  |
| --- | --- |
| **Name** | **Study** |
| ICAD\_Insulin | ALSPAC (3,4)  CoSCIS (1,2,3)  EYHS Denmark (1,2)  EYHS Estonia  EYHS Portugal (1,2)  KISS (1,2,3)  NHANES 2003-04  NHANES 2005-06 |
|  |  |

Excluded studies / waves

|  |  |
| --- | --- |
| **Study / wave**  **Variable** | **Rationale** |
|  |  |

*Item selection / prioritisation*

Original variable units are mU/L and pmol/L (mU/L is an alternate and equivalent way to state uU/mL or uIU/mL for insulin). The harmonized variable is presented in SI units (pmol/L). For the studies that reported insulin in mU/L, the value is converted to pmol/L using a factor of 6.945.

*Study specific notes*

* **ALSPAC (3,4):** Insulin is not available for W1-2. In W3, the submitted unit is mU/L and for W4, insulin is available in both mU/L and pmol/L. In original submitted data, the factor between mU/l and pmol/l is 6. Since ICAD applies a factor of 6.945 when converting mU/L to pmol/L, original ALSPAC-pmol/L values differ from ICADs harmonized ALSPAC-pmol/L values.
* **CoSCIS (1,2,3):** Submitted insulin unit is mU/L in W1-2 and pmol/L in W3. W1-2 converted to pmol/L
* **EYHS Denmark:** Submitted insulin unit is pmol/L.
* **EYHS Estonia:** Submitted insulin unit is pmol/L.
* **EYHS Portugal:** Submitted insulin unit is pmol/L.
* **KISS (1,2,3):** Submitted insulin unit is mU/L and converted to pmol/L
* **NHANES 2003-04:** Submitted insulin in both mU/L and pmol/L. In submitted data, NHANES multiplied mU/L by a factor of 6. Since ICAD applies a factor of 6.945 when converting mU/L to pmol/L, original NHANES-pmol/L values differ from ICADs harmonized NHANES-pmol/L values.
* **NHANES 2005-06:** Submitted insulin in both mU/L and pmol/L. In submitted data, NHANES multiplied mU/L by a factor of 6. Since ICAD applies a factor of 6.945 when converting mU/L to pmol/L, original NHANES-pmol/L values differ from ICADs harmonized NHANES-pmol/L values.