

## THE PREVALENCE OF URINARY INCONTINENCE – DOES IT MATTER HOW WE ASK THE QUESTION?

### Hypothesis / aims of study

There are wide variations in the reported prevalence of urinary incontinence (UI); apart from genuine differences between populations, inconsistencies in the definition used may contribute to these variations. This study was undertaken to examine the prevalence and bothersomeness of UI when 3 different definitions determined from responses to the same symptom & QoL questionnaire were applied. Differences in prevalence, severity and type of UI were examined.

### Study design, materials and methods

Women already taking part in an epidemiological study were invited to complete the Sheffield Pelvic Floor Assessment Questionnaire (Sheffield-PAQ v 3.0<sup>®</sup>).<sup>(1)</sup> The bladder section of Sheffield-PAQ has 35 items (U1-U35) and 4 domains (Bladder pain, SUI, OAB and QoL). UI was defined in 3 different ways according to responses to Sheffield-PAQ, as follows:

Definition 1: A 'yes' response to 'Do you have any leakage of urine (incontinence)?' (U2)

Definition 2: Any response other than 'never' to 'How often do you leak urine?' (U19a)

Definition 3: Any response other than 'never' to at least 1 of questions 22a-24a, 26a-28a on SUI and OAB domains.

SUI was defined as a positive response to 1 or more symptoms on the SUI domain and a negative/missing response to UUI on the OAB domain. UUI was defined as 1 or more symptoms of UUI on the OAB domain and a negative/missing response on the SUI domain. Mixed urinary incontinence (MUI) was defined as 1 or more positive responses to both SUI and UUI symptoms.

Variables examined for each definition were UI (as defined above), problem symptoms (at least 1 symptom on the SUI and OAB domains reported as at least 'a bit of a problem'), interference with QoL (at least 1 positive response on the QoL domain), wearing of pads (question U32a) and type of UI (SUI, UUI & MUI as defined above).

### Results

895 women returned Sheffield-PAQs; 894 women completed questions on the bladder section. Mean age 46.1years (sd 3.5). Median BMI 24.8kg/m<sup>2</sup> (range 14.6-49.5kg/m<sup>2</sup>). Results are shown in Table 1 and Figure 1.

### Interpretation of results

These results show large differences in the prevalence of UI for a single cohort; depending on the definition applied prevalence varied by over 100% (34% to 71%). A consistent trend was observed whereby an increasing rate of reporting UI was associated with a lowering of the rate of problem symptoms, interference in QoL and wearing of pads. The distribution of types of UI was similar using definitions 1 & 2; pure SUI was more common and MUI less common using definition 3. Most women reported small volume leakage; the small group who reported moderate/large volume loss was captured in all 3 definitions (n=13, n=14, n=15).

In responding to the question 'do you have any leakage of urine (incontinence)?' women appear to consider the broader aspects of the question including bothersomeness. When asked more specific questions such as frequency of leakage or provoking events, a positive response is more likely, and as a result, a higher prevalence may be reported.

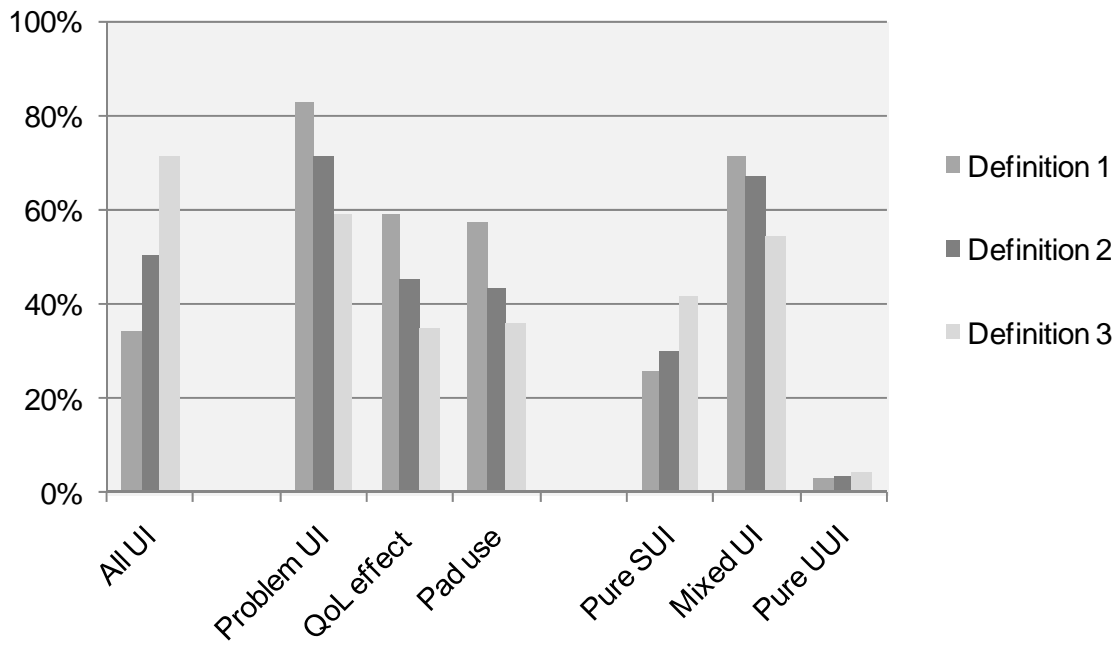
### Concluding message

Reported prevalence figures for UI at the higher end of the published range may be due to more relatively mild symptoms being reported and our results suggest that these are more likely to be symptoms of SUI than UUI or mixed UI.

**Table 1:** Variations in prevalence, severity and type of UI according to definition.

	Definition 1		Definition 2		Definition 3	
All UI	307	34.3%	451	50.4%	636	71.1%
Problem UI	254	82.7%	321	71.2%	375	59.0%
QoL effect	181	59.0%	204	45.2%	220	34.6%
Pad use	176	57.3%	194	43.0%	228	35.8%
Pure SUI	78	25.8%	129	29.9%	264	41.5%
Mixed UI	215	71.2%	289	66.9%	346	54.4%
Pure UUI	9	3.0%	14	3.2%	26	4.1%

Figure 1:



References:

(1) BJOG 2006;113:231-238.

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**HUMAN SUBJECTS:** This study was approved by the Newcastle & North Tyneside LREC and followed the Declaration of Helsinki Informed consent was obtained from the patients.