

CHANGES IN WOMEN'S WATER USAGE DURING PREGNANCY IN THE BORN-IN-BRADFORD (BIB) COHORT

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Background and Aims: We study the relation between prenatal exposure to chlorination disinfection by-products (DBPs) in tap water and reproductive outcomes, in a prospective cohort of 13,750 women recruited in Bradford between 2007 and 2010. To assess exposure to tap water, we have developed an exposure metric which combines area-level DBP concentrations modelled over each woman's gestation period, with individual water use information collected via questionnaire at enrolment (second trimester).

Because earlier work demonstrated that individual water usage is the main driver of differences in exposure between individuals in Bradford (due to limited spatial variability), we collected repeat questionnaire data to assess variability in water usage over the course of late pregnancy.

Methods: We mailed out 619 and 617 repeat water use questionnaires, modelled on the baseline questionnaire, in hard-copy to English speaking women between 29-32 ("Q1") and 35-38 ("Q2") weeks pregnant, respectively. This work was approved by the Bradford Research Ethics Committee.

Results: Overall response rate was 26% as of January 2011. Of the total number of Q2 responses received to date (N=66), 85% were repeat responses.

The responses showed that women in their late third trimester of pregnancy (mean= 37.30±1.12 weeks) increased their tap water intake at home compared to women earlier in their third trimester (mean=31.34 ±1.32 weeks).

Overall, women ingested less liquids of any sort (tap water/bottled water/tea/coffee/squash) at work per day, showered more often and for longer, but swam less often and for shorter times as pregnancy progressed.

Full results will be presented.

Conclusions: Little is known about women's water use behaviour in late pregnancy, a critical window of exposure as the rate of foetal growth dramatically accelerates. This study provides new information regarding third trimester water use behaviours, to be incorporated in our epidemiologic models and help minimise exposure misclassification.