Oral Water Intake Across Major US Industries: NHANES 1999-2004

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INTRODUCTION

Physically demanding jobs can be associated with substantial water loss. Therefore there must be an emphasis on fluid replacement strategies to protect worker health and to maintain work capacity.

OBJECTIVE

Examine water intake variation across occupational groups by major United States Industries.

METHODS

Data from 1999-2004 National Health and Nutrition Examination Survey (NHANES).

Respondents > 20 years who reported on their & industry.

Water consumption from bottled, tap and fountain attained from food frequency questionnaire.

Workers grouped into 45 major US industries.

	Mean	95% Confidence Interval
ndustry	(Liters /day)	
Manufacturing - Textile mill products	1.0	0.5-1.5
Private households	1.0	0.8-1.2
Manufacturing - Rubber, plastics, and leather products	1.0	0.6-1.5
Retail-Department stores	1.0	0.9-1.2
Repair services	1.0	0.7-1.4
Trucking service	1.1	0.8-1.4
Manufacturing - Electrical machinery, equipment, and supplies	1.1	0.8-1.4
Other Retail trade	1.1	0.9-1.3
Health services, n. e. c.	1.1	1.0-1.2
Retail-Vehicle dealers, supply and service stores	1.1	1.0-1.3
Retail-Apparel and accessory stores	1.2	0.9-1.4
Manufacturing - Machinery, except electrical	1.2	1.0-1.4
Manufacturing - Lumber and wood products, including furniture	1.2	0.9-1.5
Manufacturing - Food and kindred products	1.2	0.9-1.5
Nholesale Trade, Durable goods	1.2	1.0-1.4
Banking and other finance	1.2	1.1-1.4
Manufacturing - Miscellaneous and not specified manufacturing industries	1.2	0.9-1.5
Manufacturing - Apparel and other finished textile products	1.2	0.8-1.7
Manufacturing - Metal industries	1.2	1.0-1.5
Transportation, except trucking	1.2	1.1-1.4
Retail-Food stores	1.2	1.1-1.4
Manufacturing - Paper products, printing, publishing, and allied industries	1.3	1.0-1.5
Personal services, except private households and lodging	1.3	1.0-1.5
Public administration, except justice, public order, safety	1.3	1.0-1.5
Educational services	1.3	1.2-1.4
Retail-Eating and drinking places	1.3	1.2-1.4
Hospitals	1.3	1.2-1.4
Other professional and related services	1.3	1.1-1.5
odging places	1.3	1.0-1.6
Offices of health practitioners	1.3	1.1-1.5
Social services	1.3	1.1-1.6
Communications	1.3	1.1-1.6
Manufacturing - Chemicals, petroleum, and coal products	1.3	0.9-1.8
Intertainment and recreation services	1.4	1.2-1.6
Manufacturing - Transportation equipment	1.4	1.1-1.6
Nholesale Trade, Non-durable and not specified goods	1.4	1.0-1.8
Construction	1.4	1.2-1.6
Business services	1.4	1.2-1.6
nsurance and real estate	1.4	1.3-1.6
Mining	1.4	0.9-1.9
Jtilities	1.5	1.1-1.8
Agriculture production	1.7	1.1-2.2
lustice, public order, and safety	1.7	1.3-2.1
Agricultural services, forestry, and fishing	1.7	1.3-2.1
Military & national security	1.7	1.2-2.3





White Collar Part Time Workers

Service Workers Full Time

Blue Collar Workers Part Tim

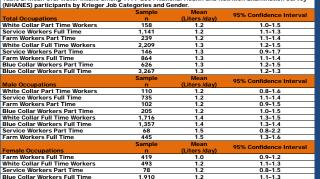


Table 2. Mean Oral Water Intake among 1999-2004 National Health and Nutrition Exa





0.9-1.7

RESULTS

Unemployed individuals consumed less water daily (males 1.2 Liters(L)/day, females 1.1 L/day) as compared to employed individuals (males 1.4 Liters (L)/day, females 1.2 L/day).

Workers employed in Textile-mill products (1.01L/day); Private households (1.02L/day); and Rubber, plastics, and leather product manufacturing (1.03L/day) industries consumed the least amount of water daily.

Individuals employed in Justice, public order, and safety (1.67/day); Agricultural services, forestry, and fishing (1.71L/day); and Military & national security consumed the most water daily (1.74/day).

CONCLUSION

National estimates of water consumption patterns across occupational groups vary slightly.

Water replacement strategies in certain occupational groups may be warranted.