WHEN IS A CUCUMBER LIKE A MOBILE PHONE? SCIENCE AND POLICY IN WATER SCARCITY AND WATER REUSE

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Background and aims: Israel is a semi-arid country experiencing water scarcity, with a long tradition of intensive agriculture. Israel is also a world leader in the use of treated wastewater for irrigation. More than 80% of the sewage is treated and reused for irrigation of edible and non-edible crops. The current regulations in Israel and worldwide regarding use of reclaimed wastewater for irrigation largely address microbiological quality and do not address anthropogenic chemical contaminants including pharmaceutical and personal care products (PPCPs). Recent research indicates that some of these chemicals persist in soil, in crops, and infiltrate groundwater. The population is exposed to low levels of these chemicals through the food chain and the drinking water. The health implications of this exposure are not known. There is no comprehensive assessment of the exposure and little epidemiological or toxicological research. Policy recommendations or recommendations to the public have not been made.

Israel is also a leader in the per capita use of mobile phones. Research on the health impact of mobile phone use has yet to reach conclusive results, however the Ministry of Health has issued public recommendations, applying a precautionary approach to justify its recommendations.

Methods: In order to address the question of what a precautionary approach might look like under conditions of water scarcity and intensive water reuse, we conducted an international survey of policy makers and researchers. We ask about the difference between applying precaution regarding mobile phones as opposed to the use of recycled wastewater. We address the issue of how environmental health policy is best determined in such a case of scientific uncertainty.

Results and conclusions: The results of the international survey on applying precaution in developing environmental health policy for the use of treated wastewater will be presented.