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# Internet use, social engagement and health literacy decline during ageing in a longitudinal cohort of older English adults

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## ABSTRACT

**Background** Health literacy skills tend to decline during ageing, which is often attributed to age-related cognitive decline. Whether health literacy skills may be influenced by technological and social factors during ageing is unknown.

**Methods** We investigated whether internet use and social engagement protect against health literacy decline during ageing, independent of cognitive decline. We used prospective data from 4368 men and women aged ≥52 years in the English Longitudinal Study of Ageing from 2004 to 2011. Health literacy was measured at baseline (2004–2005) and at follow-up (2010–2011) using a reading comprehension test of a fictitious medicine label. The influences of consistent internet use and engagement in each of the civic, leisure and cultural activities on health literacy decline over the follow-up were estimated.

**Results** After adjusting for cognitive decline and other covariates, consistent internet use (1379/4368; 32%) was protectively associated with health literacy decline (OR=0.77; 95% CI 0.60 to 0.99), as was consistent engagement in cultural activities (1715/4368; 39%; OR=0.73; 95% CI 0.56 to 0.93). As the number of activities engaged in increased, the likelihood of health literacy decline steadily decreased ( $p_{\text{trend}} < 0.0001$ ), with OR=0.51 (95% CI 0.33 to 0.79) for engaging in all four of the internet use and civic, leisure and cultural activities versus none.

**Conclusions** Internet use and social engagement, particularly in cultural activities (eg, attending the cinema, art galleries, museums and the theatre), may help older adults to maintain health literacy during ageing. Support for older adults to maintain socially engaged lives and to access the internet should help promote the maintenance of functional literacy skills during ageing.

If a variable is protectively associated with a decline, that means that the variable helps guard AGAINST the decline.

In this case, consistent Internet use guards against the decline in health literacy that would otherwise be expected as people age.

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