

## Determinants of e-health usage: a random population survey.

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## Why e-health?

- The internet is often consulted for information about health (Sillence, Briggs, Harris, & Fishwick, 2007)
- Internet usage to answer health problems is a concern to many (Ahmad, Hudak, Bercovitz, Hollenberg, Levinson, 2006)
- Patients and caregivers are very positive about its usage (Andreassen, Bujnowska-Fedak, Chronaki, Dumitru, Pudule, Santana, et al., 2007)



## Who uses e-health info?

- Internationally: sick people ! (Bundorf, Wagner, Singer, & Baker, 2006; Flynn, Smith, & Freese, 2006)
  - » Although internet use for health promotion is also found
- In Australia : gender, age, income have been found as predictors (Bessell, Silagy, Anderson, Hiller, Sansom, 2002)
  - » but health status ??
  - » last investigated 2000(ish).



## This study

- Primary Aim: To determine the proportion of South Australians seeking health information on the internet, and the relationship between searches for health information and health status.
- Method: Face-to-face interviews with a representative sample of 3, 034 South Australians in 2008.
- Usage items derived Bessell et al., 2002.



## Measures

- Internet users ≠ "never" use internet
- Searched for health info in last 12 months?
- Health status (SF-36).
  - Subscales: Physical Functioning; Role Physical; Bodily Pain; General Health; Vitality; Social Functioning; Role Emotion, and Mental Health
  - 2 summary scores: Physical Component Score and the Mental Component Score
  - Data weighted to SA pop. norms. (SATA/ MP version 10.0)



## Results

- Approximately 68% of respondents used the internet and of these approximately half (49%) used the internet to search for health information.
- Prevalence of South Australian internet health seekers in 2008 was 33% (1003/3034 respondents) vs. with 21% reported by Bessell et al., 2002
- Consistent with Bessell et al., in 2008 higher rates of internet usage amongst younger people, males, etc
- Largest % increase was amongst older people (254%)



## Results

- All subscales of the SF-36 (+ some demographic variables) predicted use of the internet.
- In the multivariate analysis physical and mental health summary scales remained positively related to internet use.
- Better health was consistently associated with less internet healthcare seeking behaviour (e.g., Physical Summary Scale, OR = .98: CI 0.97 - 0.99; Mental Summary Scale, OR = 0.97, CI 0.96 - 0.98).
- E-health information seeking increased with age (OR = 1.01, CI 1.01 - 1.02)



## Results

- The variables that were significantly associated with e-health seeking in univariate analyses were used in a multivariate logistic regression
- The mental and physical health summary scales were entered simultaneously in a model as were age, gender and education. The summary scales for Physical Health (OR = 0.98, CI 0.97-1.00) and Mental Health (OR = 0.96, CI= 0.95 - 0.98), retained significance.



## What have we found out?

- Dramatic increase in e-health seeking behaviour : 1/3 of respondents.
- Use of the internet by those over 65 has increased to 28%, but those younger than 65 show much higher rates of internet use (from 62% to 95%).
- Of respondents who searched for health information on the internet 82% described the information they found as "helpful".
- Poorer health status predicted less access to the internet but more searches for more health information.



## Implications?

- Proxies of socio-economic disadvantage remain predictive of reduced access to the internet and less use of e-health information.
- More internet use ≠ more equitable distribution
- Improving internet access ≠ increasing use of e-health information unless strategies quality health information is presented in order to address diverse audiences.

