



Strathprints Institutional Repository

Emerson, Eric and Baines, Susie and Allerton, Lindsay and Welch, Victoria (2011) *Health Inequalities and People with Learning Disabilities in the UK.* [Report]

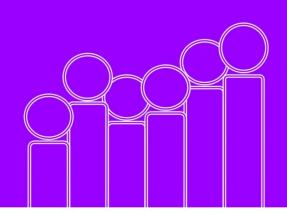
Strathprints is designed to allow users to access the research output of the University of Strathclyde. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. You may not engage in further distribution of the material for any profitmaking activities or any commercial gain. You may freely distribute both the url (http://strathprints.strath.ac.uk/) and the content of this paper for research or study, educational, or not-for-profit purposes without prior permission or charge.

Any correspondence concerning this service should be sent to Strathprints administrator: mailto:strathprints@strath.ac.uk



Health Inequalities & People with Learning Disabilities in the UK: 2010

Eric Emerson and Susannah Baines





Health Inequalities & People with Learning Disabilities in the UK: 2010

Eric Emerson
Susannah Baines

IHAL 2010-03

Acknowledgements

We would like to thank Nicholas Campbell (Office for Disability Issues), Professor Sally-Ann Cooper (University of Glasgow), Professor David Felce (Cardiff University), Dr Alison Giraud-Saunders (Foundation for People with Learning Disabilities), Gemma Honeyman (Challenging Behaviour Foundation), Dr Theresa Joyce (South London & Maudsley NHS Foundation Trust), Professor Nick Lennox (University of Queensland), Professor Gwynnyth Llewellyn (University of Sydney), Professor Henny van Schrojenstein Lantman-De Valk (Radboud University Nijmegen Medical Centre), Dr Roger Stancliffe (University of Sydney) and Geraldine Teggart (Care Quality Commission) for their helpful comments on drafts of this report.

Contents

ntroduction	
nequalities in Health Status	
Mortality	2
General Health Status	
Cancer	2
Coronary Heart Disease	3
Respiratory Disease	3
Mental Health & Challenging Behaviour	3
Dementia	
Epilepsy	3
Sensory Impairments	4
Physical Impairments	4
Oral Health	4
Dysphagia	4
Diabetes	4
Gastro-oesophageal Reflux Disease (GORD)	4
Constipation	4
Osteoporosis	5
Endocrine Disorders	5
Injuries, Accidents and Falls	5
Determinants of Health Inequalities	6
The 'Social Determinants' of Health	6
Genetic & Biological Factors	7
Communication & Health Literacy	7
Personal Health Risks & Behaviours	8
Diet	8
Exercise	8
Obesity & Underweight	8
Substance Use	8
Sexual Health	8
Access to and the Quality of Healthcare	9
Consent	9
Health Screening and Health Promotion	9
Primary Health Care	
Secondary Health Care	10
Conclusions	
References	12

About the Authors

Eric Emerson is Co-Director of the Improving Health and Lives Learning Disabilities Observatory. Eric is also Professor of Disability & Health Research at the <u>Centre for Disability Research</u>, School of Health & Medicine, Lancaster University and Visiting Professor at the <u>Australian Family and Disabilities Studies Research Collaboration</u>, University of Sydney.

Susannah Baines is a Research Associate with the Improving Health and Lives Learning Disabilities Observatory, and is based at the <u>Centre for Disability Research</u>, School of Health & Medicine, Lancaster University.

Introduction

People with learning disabilities have poorer health than their non-disabled peers, differences in health status that are, to an extent, avoidable. 1-14

The health inequalities faced by people with learning disabilities in the UK start early in life,¹⁵⁻²⁰ and result, to an extent, from barriers they face in accessing timely, appropriate and effective health care.²¹⁻²⁷ The inequalities evident in access to health care are likely to place many NHS Trusts in England in contravention of their legal responsibilities defined in the Disability Discrimination Acts 1995 and 2005 and the Mental Capacity Act 2005. At a more general level, they are also likely to be in contravention of international obligations under the UN Convention on the Rights of Persons with Disabilities.²³

The Department of Health have continuously emphasised that Primary, Acute and Specialist NHS Trusts must play in a central role in meeting the health needs of people with learning disabilities.^{24 25} ^{27 28}

This briefing paper will assist Primary, Acute and Specialist NHS Trusts in fulfilling their responsibilities. In this report we summarise the most recent evidence from the UK on the health status of people with learning disabilities and the determinants of the health inequalities they face. Later in the autumn, IHaL will be producing a briefing for GP Commissioning Consortia and PCTs on practical commissioning actions to help address the issues identified in this report.

Inequalities in Health Status

In 2002 we undertook a comprehensive review of the UK research literature on the health needs of people with learning disabilities and the response of health services to people with learning disabilities. We have updated this review to include information published since 2002. As in the previous review, we have focused on information relating to the health needs of people with learning disabilities in the UK. We have, however, drawn attention to studies from other countries where these are particularly relevant.

In this section we summarise the available UK research literature concerning the health status and needs of children and adults with learning disabilities. Evidence concerning health needs in priority areas for the NHS is reviewed, along with additional areas of particular significance for people with learning disabilities.

Mortality

People with learning disabilities have a shorter life expectancy and increased risk of early death when compared to the general population.^{29 30} Life expectancy is increasing, in particular for people with Down's syndrome, with some evidence to suggest that for people with mild learning disabilities it may be approaching that of the general population.³¹ All cause mortality rates among people with moderate to severe learning disabilities are three times higher than in the general population, with mortality being particularly high for young adults, women and people with Down's syndrome.³²

General Health Status

The risk of children being reported by their main carer (usually their mother) to have fair/poor general health is 2.5-4.5 times greater for children with learning disabilities when compared to their non-disabled peers. ^{17 18} One in seven adults with learning disabilities rate their general health as not good. ³³ These maybe underestimates of the poorer health of people with learning disabilities as carers of people with learning disabilities tend to perceive the person they care for to be healthier than suggested by the results of medical examination. ^{34 35} Health screening of adults with learning disabilities registered with GPs reveals high levels of unmet physical and mental health needs. ^{34 36-39}

Cancer

Overall, the incidence of deaths from cancer in the UK among people with learning disabilities is currently lower than the general population (12%-18% vs 26%), although people with learning disabilities have proportionally higher rates of gastrointestinal cancer than the general population (48%-59% vs 25% of cancer deaths). ⁴⁰⁻⁴² However, the incidence and pattern of cancer amongst people with learning disabilities is rapidly changing due, in part, to increased longevity. ⁴⁰⁻⁴² Children with Down's syndrome are at particularly high risk of leukaemia compared to the general population, although the risk of solid tumours, including breast cancer, is lower. ^{43 44} There is a high prevalence of helicobacter pylori, a class 1 carcinogen linked to stomach cancer, gastric ulcer and lymphoma, among people with learning disabilities. ⁴⁵



Coronary Heart Disease

Coronary heart disease is a leading cause of death amongst people with learning disabilities (14%-20%), with rates expected to increase due to increased longevity and lifestyle changes associated with community living. Almost half of all people with Down's syndrome are affected by congenital heart defects. Almost half of all people with Down's syndrome are affected by congenital heart defects.

Respiratory Disease

Respiratory disease is possibly the leading cause of death for people with learning disabilities (46%-52%), with rates much higher than for the general population (15%-17%).^{29 31} People with asthma and learning disabilities were found to be twice more likely to be smokers than patients with learning disabilities who do not have asthma. More than half of women with learning disabilities and asthma are also obese.⁴⁸

Mental Health & Challenging Behaviour

The prevalence of psychiatric disorders is 36% among children with learning disabilities, compared to 8% among children without learning disabilities, with children with learning disabilities accounting for 14% of all British children with a diagnosable psychiatric disorder. 1949 Increased prevalence of psychiatric disorder is particularly marked for autistic spectrum disorder (OR 33.4), ADHD/hyperkinesis (OR 8.4) and conduct disorders (OR 5.7). ^{19 49} The prevalence of psychiatric disorders is also significantly higher among adults whose learning disabilities are indentified by GPs, when compared to general population rates. 50-52 Challenging behaviours (aggression, destruction, self-injury and others) are shown by 10%-15% of people with learning disabilities, with age-specific prevalence peaking between ages 20 and 49. 53-58 In some instances, challenging behaviours result from pain associated with untreated medical disorders. 54 59 60 Reported prevalence rates for anxiety and depression amongst adults with learning disabilities vary widely, but are generally reported to be at least as prevalent as the general population and higher amongst people with Down's syndrome. ⁶¹ There is some evidence to suggest that the prevalence rates for schizophrenia in people with learning disabilities are approximately three times greater than for the general population, with higher prevalence rates for South Asian adults with learning disabilities compared to White adults with learning disabilities. 62 63

Dementia

The prevalence of dementia is higher amongst older adults with learning disabilities compared to the general population (22% vs 6% aged 65+), and is associated with a range of potentially challenging behaviours and health problems. People with Down's syndrome are at particularly high risk of developing dementia, with the age of onset being 30-40 years younger than that for the general population. Amongst people with moderate to profound learning disabilities, deaths from dementia are more common in men than women.

Epilepsy

The prevalence rate of epilepsy amongst people with learning disabilities has been reported as at least twenty times higher than for the general population, with seizures commonly multiple and resistant to drug treatment. ⁶⁸⁻⁷⁰ Uncontrolled epilepsy can have serious negative consequences on both quality of life and mortality. ^{71 72}



Sensory Impairments

People with learning disabilities are 8-200 times more likely to have a vision impairment compared to the general population.⁷³ Approximately 40% of people with learning disabilities are reported to have a hearing impairment, with people with Down's syndrome at particularly high risk of developing vision and hearing loss.⁷³ Those living independently or with family are significantly less likely to have had a recent eye examination than those living with paid support staff.⁷⁴ Carers frequently fail to identify sensory impairments, including cerebral visual impairment, among people with learning disabilities that they are supporting.^{38 75 76}

Physical Impairments

Among adults with learning disabilities, being non-mobile has been associated with a sevenfold increase in death and being partially mobile has been associated with a twofold increase of death when compared with being fully mobile.³² A population-based study in the Netherlands reported that people with learning disabilities are 14 times more likely to have musculo-skeletal impairments.⁷⁷

Oral Health

One in three adults with learning disabilities and four out of five adults with Down's syndrome have unhealthy teeth and gums, ³⁶ with adults living with families having more untreated decay and poorer oral hygiene and adults living in residential services having more missing teeth. ⁷⁸

Dysphagia

Difficulties with eating, drinking and swallowing have implications for health, safety and wellbeing. Among adults with learning disabilities, 40% of people with dysphagia experience recurrent respiratory tract infections. Other negative health consequences of dysphagia include asphyxia, dehydration and poor nutritional status.⁷⁹

Diabetes

Increased rates of diabetes among adults with learning disabilities have been reported in a population-based study undertaken in the Netherlands.⁸⁰ We are not aware of any UK-based data on the prevalence of diabetes among people with learning disabilities.

Gastro-oesophageal Reflux Disease (GORD)

GORD causes pain and may contribute to sleep disturbance, problem behaviour, anaemia and risk of oesophageal cancer. Close to half of a sample of institutionalised people with moderate and severe learning disabilities in the Netherlands were found to have GORD. We are not aware of any UK-based data on the prevalence of GORD among people with learning disabilities.

Constipation

Constipation has been reported among two-thirds of a sample of institutionalised people with moderate and severe learning disabilities in the Netherlands. We are not aware of any published UK-based data on the prevalence of constipation among people with learning disabilities. However, an unpublished study has reported rates of constipation in the previous year ranging from 17% to 51% among adults with learning disabilities in varying types of supported accommodation. Sample of institutionalised people with



Osteoporosis

Studies from Australia and the USA indicate that people with learning disabilities may have increased prevalence of osteoporosis and lower bone density than the general population. 84-86 Contributory factors include lack of weight-bearing exercise, delayed puberty, earlier-than-average age at menopause for women, poor nutrition and being underweight. Fractures can occur with only minor injury and can be multiple. We are not aware of any UK-based data on the prevalence of osteoporosis among people with learning disabilities.

Endocrine Disorders

Hypothyroidism is relatively common among people with Down's syndrome, prevalence increasing with age. Prevalence rates in children with Down's syndrome have been reported to range from 9%-19%. A prevalence rate of 22% has been reported in an institutionalised population of adults with Down's syndrome. 90

Injuries, Accidents and Falls

High rates of accidents and injuries amongst people with learning disabilities, including injuries from falls, have been reported in studies undertaken in Canada, Australasia, the Netherlands and the US. ⁹¹⁻⁹⁵ In Denmark and Australia, accidents have been reported to be a more common cause of death among people with learning disabilities than in the general population. ⁵ We are not aware of any UK-based data on the prevalence of injuries, accidents or falls among people with learning disabilities.



Determinants of Health Inequalities

Research studies have investigated five broad classes of determinants of the health inequalities faced by people with learning disabilities that are, in principle, potentially amenable to intervention.

- Increased risk of exposure to well established 'social determinants' of health;
- Increased risk associated with specific genetic and biological causes of learning disabilities;
- Communication difficulties and reduced health 'literacy';
- Personal health risks and behaviours;
- Deficiencies in access to and the quality of healthcare provision.

Evidence for these determinants of health inequalities (which are not presented in any priority order) is outlined below.

The 'Social Determinants' of Health

People with learning disabilities, especially people with less severe learning disabilities, are more likely to be exposed to common 'social determinants' of (poorer) health such as poverty, poor housing conditions, unemployment, social disconnectedness and overt discrimination. ^{4 96-100} The association between exposure to such adversities and health status is at least as strong among people with learning disabilities as it is among the general population. 19 101 It has been estimated that increased exposure to low socio-economic position/poverty may account for: (1) 20-50% of the increased risk for poorer health and mental health among British children and adolescents with learning disabilities; ¹⁷⁻¹⁹ (2) 29-43% of the increased risk for conduct difficulties and 36-43% of the increased risk for peer problems among Australian children with learning disabilities or borderline intellectual functioning; 102 (3) a significant proportion of increased rates of self reported antisocial behavior among adolescents with learning disabilities; ¹⁰³ and (4) 32% of the increased risk for conduct difficulties and 27% of the increased risk for peer problems among a nationally representative sample of 3 year old British children with developmental delay. 104 Exposure to bullying at school and overt discrimination in adulthood are independently related to poorer health status of people with learning disabilities. 97 Given the association between minority ethnic status and poverty and the exposure of people with learning disabilities from minority ethnic communities to overt racism, ¹⁰⁵ it is likely that people with learning disabilities from minority ethnic communities will face greater health inequalities than people with learning disabilities from majority ethnic communities.



Genetic & Biological Factors

People with moderate to profound learning disabilities are more likely than the general population to die from congenital abnormalities.⁶⁷ In addition a number of syndromes associated with learning disabilities are also associated with some specific health risks.⁵⁴ 106-108 For example:

- congenital heart disease is more prevalent among people with Down's syndrome and Williams syndrome;
- early onset dementia is more common in people with Down's syndrome;
- hypothalamic disorders are more prevalent among people with Prader-Willi syndrome;
- mental health problems and challenging behaviours are more prevalent among people with autism spectrum disorders, Rett syndrome, Cornelia de Lange syndrome, Riley-Day syndrome, Fragile-X syndrome, Prader-Willi syndrome, Velocardiofacial syndrome, Williams syndrome and Lesch-Nyhan syndrome;
- obesity is more prevalent among people with Prader-Willi syndrome, Cohen syndrome and Bardet-Biedl syndrome.

Communication & Health Literacy

People with learning disabilities may have poor bodily awareness and a minority may have depressed pain responses. ¹⁰⁹⁻¹¹¹ In addition, limited communication skills may reduce their capacity to convey identified health needs effectively to others (e.g., relatives, friends, paid support workers). As a result, carers (unpaid and paid) play an important role in the identification of health needs for many people with more severe learning disabilities. However, they may have difficulty in recognizing expressions of need, particularly if the person concerned does not communicate orally. ^{38 112} People with learning disabilities experience a lack of knowledge and choice about healthy eating. ¹¹³



Personal Health Risks & Behaviours

Diet

Less than 10% of adults with learning disabilities in supported accommodation eat a balanced diet, with an insufficient intake of fruit and vegetables. ¹¹⁴ Carers generally have a poor knowledge about public health recommendations on dietary intake. ¹¹⁵

Exercise

Over 80% of adults with learning disabilities engage in levels of physical activity below the Department of Health's minimum recommended level, a much lower level of physical activity than the general population (53%-64%). People with more severe learning disabilities and people living in more restrictive environments are at increased risk of inactivity. 114

Obesity & Underweight

People with learning disabilities are much more likely to be either underweight or obese than the general population. ¹⁶ ¹¹⁴ ¹¹⁶ ¹¹⁹ Women, people with Down's syndrome, people of higher ability and people living in less restrictive environments are at increased risk of obesity. ¹¹⁴ ¹¹⁷ ¹¹⁹ ¹²⁰ The high level of overweight status amongst persons with learning disabilities is likely to be associated with an increased risk of diabetes. ⁵

Substance Use

Fewer adults with learning disabilities who use learning disability services smoke tobacco or drink alcohol compared to the general population. However, rates of smoking among adolescents with mild learning disability are higher than among their peers. Within a sample of people with learning disabilities who admitted to substance misuse, 61% were male, and alcohol was the most misused substance. 123

Sexual Health

Little is known about inequalities in the sexual health status of people with learning disabilities in the UK. There is, however, evidence to suggest that they may face particular barriers in accessing sexual health services, and the informal channels through which young people learn about sex and sexuality. A population-based study in the Netherlands reported that men with learning disabilities were eight times more likely to have sexually transmitted diseases. High rates of unsafe sexual practices has been reported among gay men with learning disabilities.



Access to and the Quality of Healthcare

A range of organisational barriers to accessing healthcare services have been identified. ^{22 23 27 60 126 127} These include:

- scarcity of services;
- physical barriers to access;
- failure to make 'reasonable adjustments' in light of the literacy and communication difficulties experienced by many people with learning disabilities;
- variability in the availability of interpreters for people from minority ethnic communities;
- 'diagnostic overshadowing' (symptoms of physical ill health being mistakenly attributed to either a mental health/behavioural problem or as being inherent in the person's learning disabilities);
- disablist attitudes among healthcare staff.

Consent

The National Patient Safety Agency has reported concern about 'consent being sought from a carer rather than taking the time to gain consent from the person with the learning disability.' 128

Health Screening and Health Promotion

A number of studies have reported low uptake of health promotion or screening activities among people with learning disabilities. ¹²⁶ These include:

- Assessment for vision or hearing impairments;^{129 130}
- Routine dental care; 36 99
- Cervical smear tests: 131-133
- Breast self- examinations and mammography. ¹³² ¹³⁴⁻¹³⁶

Access to health promotion may be significantly poorer for people with more severe learning disabilities.¹⁵

Primary Health Care

Whilst people with learning disabilities visit their GP with similar frequency to the general population, they are less likely to receive regular health checks. ¹³⁷⁻¹³⁹ Given the evidence of greater health need it would be expected that people with learning disabilities should be accessing primary care services more frequently than the general population. For example, comparison of general practitioner consultation rates to those of patients with other chronic conditions suggests that primary care access rates for people with learning disabilities are lower than might be expected. ¹⁴⁰

Collaboration between GPs, primary health care teams and specialist services for people with learning disabilities is generally regarded as poor. Adults aged over 60 with learning disabilities are less likely to receive a range of health services compared to younger adults with learning disabilities. The introduction of special health checks for people with learning disabilities has been shown to be effective in identifying unmet health needs, suggesting that health checks represent a 'reasonable adjustment' to the difficulties in identifying and/or communicating health need experienced by people with learning disabilities. While providing financial incentives to GPs may influence practice, incentives based on general population health need may be insufficient to improve the quality of care for people with learning disabilities.



In the UK, and in other countries, adults with learning disabilities, and especially adults who show challenging behaviours, are commonly prescribed anti-psychotic medication. So 144-151 Such a widespread 'off-label' use of anti-psychotic medication is of concerns as: (1) there is little evidence that anti-psychotics have any specific effect in reducing challenging behaviours; (2) such medication has a number of well documented serious side effects.

Secondary Health Care

There are significant variations in NHS total expenditure and expenditure per person on services for people with learning disabilities across different areas of England, with lower spending in rural areas ¹⁵² and significant variation in the services provided to people with learning disabilities by specialist NHS Trusts. ¹⁵³ People with learning disabilities have an increased uptake of medical and dental hospital services but a reduced uptake of surgical specialities compared to the general population. ¹⁵⁴ People with learning disabilities with cancer are less likely to: be informed of their diagnosis and prognosis; be given pain relief; and less likely to receive palliative care. ¹⁵⁵ ¹⁵⁶

Concern has been expressed with regard to the availability of and access to mental health services by people with learning disabilities. However, a very high proportion of people with learning disabilities are receiving prescribed psychotropic medication, most commonly anti-psychotic medication (40%-44% long-stay hospitals; 19%-32% community-based residential homes; 9%-10% family homes). Anti-psychotics are most commonly prescribed for challenging behaviours rather than schizophrenia, despite no evidence for their effectiveness in treating challenging behaviours and considerable evidence of harmful side-effects.

Conclusions

Responding to the health inequalities faced by people with learning disabilities is a critically important issue for primary and secondary healthcare services in England. It is clear that these health inequalities are, to an extent, avoidable. It is also clear that existing patterns of healthcare provision are insufficient, inequitable and likely to be in contravention of legal requirements under the Disability Discrimination Acts 1995 and 2005 and the UN Convention on the Rights of Persons with Disabilities. ²¹⁻²⁶

Department of Health policies and guidance have continuously emphasised the central role that mainstream health services must play in meeting the health needs of people with learning disabilities. ^{24 25 28}

The health inequalities faced by people with learning disabilities make a significant contribution to overall health inequalities. Progress on reducing health inequalities in general will require greater attention to the health inequalities faced by particular 'high risk' groups, including people with learning disabilities. 4 162

This briefing paper has drawn attention to:

- those aspects of health where people with learning disabilities fare particularly poorly;
- current knowledge concerning the determinants of the health inequalities faced by people with learning disabilities.

Understanding the determinants of health inequalities helps identify potential solutions. ¹⁶² Responding appropriately to the health inequalities faced by people with learning disabilities in England demands action on several fronts. These include:

- reducing the exposure of people with learning disabilities to common social determinants of (poorer) health such as poverty, poor housing conditions, unemployment, social disconnectedness and overt discrimination;
- improving the early identification of illness among people with learning disabilities by, for
 example, increasing uptake of annual health checks, and for women, cervical and breast
 screening.¹⁶⁴ Knowledge of the health risks associated with specific syndromes is of value in
 targeting the content of health checks;
- enhancing the health literacy of people with learning disabilities and of family carers and paid carers/supporters who play a critical role in promoting healthy lifestyles among many people with learning disabilities;
- making 'reasonable adjustments' in all areas of health promotion and healthcare in light of
 the specific needs of people with learning disabilities and acting within the legal framework
 of the Mental Capacity Act 2005 (e.g., through providing more accessible information and
 longer appointment times);
- monitoring progress towards the elimination of health inequalities faced by people with learning disabilities.



References

- 1. Sutherland G, Couch MA, Iacono T. Health issues for adults with developmental disability. *Research in Developmental Disabilities* 2002;23:422-45.
- 2. Ouellette-Kuntz H. Understanding health disparities and inequities faced by individuals with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities* 2005;18:113-21.
- 3. Prasher V, Janicki MP, editors. *Physical Health of Adults with Intellectual Disabilities*. Oxford: Blackwell, 2003.
- 4. Emerson E, Madden R, Robertson J, Graham H, Hatton C, Llewellyn G. Intellectual and Physical Disability, Social Mobility, Social Inclusion & Health: Background paper for the Marmot Review. Lancaster: Centre for Disability Research, Lancaster University, 2009.
- 5. NHS Health Scotland. People with Learning Disabilities in Scotland: Health Needs Assessment Report. Glasgow: NHS Health Scotland, 2004.
- 6. Nocon A. Equal Treatment Closing the Gap: Background evidence for the DRC's formal investigation into health inequalities experienced by people with learning disabilities or mental health problems. Manchester: Disability Rights Commission, 2006.
- 7. Graham H. Intellectual Disabilities and Socioeconomic Inequalities in Health: An Overview of Research. *Journal of Applied Research in Intellectual Disabilities* 2005;18:101-11.
- 8. Krahn GL, Hammond L, Turner A. A cascade of disparities: Health and health care access for people with intellectual disabilities. *Mental Retardation and Developmental Disabilities Research Reviews* 2006;12:70-82.
- 9. Elliott J, Hatton C, Emerson E. The health of people with learning disabilities in the UK: Evidence and implications for the NHS. *Journal of Integrated Care* 2003;11:9-17.
- 10. US Department Health & Human Services. Report of the Surgeon General's conference on health disparities and mental retardation. Closing the gap. Rockville, 2002.
- 11. Van Schrojenstein Lantman-de Valk H, Walsh P. Managing health problems in people with intellectual disabilities. *British Medical Journal* 2008:1408-12.
- 12. Turner S, Moss S. The health needs of adults with learning disabilities and the Health of the Nation strategy. *Journal of Intellectual Disability Research* 1966;40:438-50.
- 13. Van Schrojenstein Lantman-de Valk H. Health in People with Intellectual Disabilities: Current Knowledge and Gaps in Knowledge. *Journal of Applied Research in Intellectual Disabilities* 2005;18:325–33.
- 14. Kerr M. Improving the general health of people with learning disabilities. *Advances in Psychiatric Treatment* 2004;10:200-06.
- 15. Kerr M, Felce D, Felce J. Equal Treatment: Closing the Gap. Final Report from the Welsh Centre for Learning Disabilities to the Disability Rights Commission. Cardiff: Welsh Centre for Learning Disabilities, Cardiff University, 2005.
- 16. Emerson E. Overweight and obesity in 3 and 5 Year old children with and without developmental delay. *Public Health* 2009;123:130-33.
- 17. Emerson E, Hatton C. The contribution of socio-economic position to the health inequalities faced by children and adolescents with intellectual disabilities in Britain. *American Journal on Mental Retardation* 2007;112(2):140-50.
- 18. Emerson E, Hatton C. Poverty, socio-economic position, social capital and the health of children and adolescents with intellectual disabilities in Britain: a replication. *Journal of Intellectual Disability Research* 2007;51(11):866-74.
- 19. Emerson E, Hatton C. The mental health of children and adolescents with intellectual disabilities in Britain. *British Journal of Psychiatry* 2007;191:493-99.
- 20. Emerson E, Robertson J. Obesity in young Australian children with intellectual disabilities or borderline intellectual functioning. *International Journal of Pediatric Obesity* in press.
- 21. Mencap. Death by Indifference. London: Mencap, 2007.



- 22. Michael J. Healthcare for All: Report of the Independent Inquiry into Access to Healthcare for People with Learning Disabilities. London: Independent Inquiry into Access to Healthcare for People with Learning Disabilities, 2008.
- 23. Disability Rights Commission. Equal Treatment Closing the Gap. London Disability Rights Commission, 2006.
- 24. Department of Health. Promoting Equality: Response from Department of Health to the Disability Rights Commission Report, "Equal Treatment: Closing the Gap". London: Department of Health, 2007.
- 25. Department of Health. Valuing People Now: From Progress to Transformation. London: Department of Health, 2007.
- 26. Parliamentary and Health Service Ombudsman and Local Government Ombudsman. Six lives: the provision of public services to people with learning disabilities. London: Parliamentary and Health Service Ombudsman and Local Government Ombudsman, 2009.
- 27. Giraud-Saunders A. Equal access? A practical guide for the NHS: Creating a Single Equality Scheme that includes improving access for people with learning disabilities. London: Department of Health, 2009.
- 28. Department of Health. Valuing People: A New Strategy for Learning Disability for the 21st Century. 2001.
- 29. Hollins S, Attard M, van Fraunhofer N, McGuigan SM, Sedgwick P. Mortality in people with learning disability: risks causes, and death certification findings in London. *Developmental Medicine and Child Neurology* 1998;40:50-56.
- 30. McGuigan SM, Hollins S, Attard M. Age specific standardised mortality rates in people with learning disability. *Journal of Intellectual Disability Research* 1995;39:527-31.
- 31. Puri BK, Lekh SK, Langa A, Zaman R, Singh I. Mortality in a hospitalized mentally handicapped population: a 10-year survey. *Journal of Intellectual Disability Research* 1995;39:442-46.
- 32. Tyrer F, McGrother C. Cause-specific mortality and death certificate reporting in adults with moderate to profound intellectual disabilities. *Journal of Intellectual Disability Research* 2009;53:898-904.
- 33. Emerson E, Hatton C. Socioeconomic disadvantage, social participation and networks and the self-rated health of English men and women with mild and moderate intellectual disabilities: Cross sectional survey. *European Journal of Public Health* 2008;18:31-37.
- 34. Wilson D, Haire A. Health care screening for people with mental handicap living in the community. *British Medical Journal* 1990;301:1379-81.
- 35. Beange H, McElduff A, Baker W. Medical disorders of adults with mental retardation: a population study. *American Journal on Mental Retardation* 1995;99:595-604.
- 36. Barr O, Gilgunn J, Kane T, Moore G. Health screening for people with learning disabilities by a community learning disability service in Northern Ireland. *Journal of Advanced Nursing* 1999;29:1482-91.
- 37. McGrother CW, Hauck A, Bhaumik S, Thorp C, Taub N. Community care for adults with learning disability and their carers: needs and outcomes from the Leicestershire register. *Journal of Intellectual Disability Research* 1996;40:183-90.
- 38. Kerr AM, McCulloch D, Oliver K, et al. Medical needs of people with intellectual disability require regular reassessment, and the provision of client- and carer-held reports. *Journal of Intellectual Disability Research* 2003;47:134–45.
- 39. Robertson J, Roberts H, Emerson E. Health Checks for People with Learning Disabilities: Systematic Review of Impact. Durham: Improving Health & Lives: Learning Disability Observatory, 2010.
- 40. Jancar J. Cancer and mental handicap: a further study. *British Journal of Psychiatry* 1990;156:531-33.
- 41. Cooke LB. Cancer and learning disability. *Journal of Intellectual Disability Research* 1997;41:312-16.



- 42. Duff M, Hoghton M, Scheepers M, Cooper M, Baddeley P. Helicobacter pylori: has the killer escaped from the institution? A possible cause of increased stomach cancer in a population with intellectual disability. *Journal of Intellectual Disability Research* 2001;45:219-25.
- 43. Hasle H, Clemmensen IH, Mikkelsen M. Risks of leukaemia and solid tumours in individuals with Down's syndrome. *Lancet* 2000;355:165-69.
- 44. Hermon C, Alberman E, Beral V, Swerdlow AJ. Mortality and cancer incidence in persons with Down's syndrome, their parents and siblings. *Annals of Human Genetics* 2001;65:167-76.
- 45. Hogg J, Tuffrey-Wijne I. Cancer and intellectual disability: A review of some key contextual Issues. Journal of Applied Research in Intellectual Disabilities 2009;21:509-18.
- 46. Wells MB, Turner S, Martin DM, Roy A. Health gain through screening coronary heart disease and stroke: developing primary health care services for people with intellectual disability. *Journal of Intellectual & Developmental Disability* 1995;22:251-63.
- 47. Brookes ME, Alberman E. Early mortality and morbidity in children with Down's syndrome diagnosed in two regional health authorities in 1988. *Journal of Medical Screening* 1996;3:7-11.
- 48. Gale L, Naqvi H, Russ L. Asthma, Smoking and BMI in adults with intellectual disabilities: a community-based survey. *Journal of Intellectual Disability Research* 2009;53(9):787-96.
- 49. Emerson E. Prevalence of psychiatric disorders in children and adolescents with and without intellectual disability. *Journal of Intellectual Disability Research* 2003;47(Pt 1):51-8.
- 50. Cooper SA, Smiley E, Finlayson J, Jackson A, Allan L, Williamson A, et al. The prevalence, incidence and factors predictive of mental ill-health in adults with profound intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities* 2007;20:493-501.
- 51. Cooper SA, Smiley E, Morrison J, Williamson A, Allan L. Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *British Journal of Psychiatry* 2007;190:27-35.
- 52. Singleton N, Bumpstead R, O'Brien M, Lee A, Meltzer H. Psychiatric morbidity among adults living in private households, 2000. London: The Stationery Office, 2001.
- 53. Holden B, Gitlesen JP. A total population study of challenging behaviour in the county of Hedmark, Norway: Prevalence, and risk markers. *Research in Developmental Disabilities* 2006;27:456-65.
- 54. Emerson E, Einfeld S. *Challenging Behaviour. 3rd Edition*. Cambridge: Cambridge University Press, in press.
- 55. Emerson E, Kiernan C, Alborz A, Reeves D, Mason H, Swarbrick R, et al. The prevalence of challenging behaviors: a total population study. *Research in Developmental Disabilities* 2001;22(1):77-93.
- 56. Cooper SA, Smiley E, Allan L, Jackson A, Finlayson J, Mantry D, et al. Adults with intellectual disabilities: prevalence, incidence and remission of self-injurious behaviour and related factors. *Journal of Intellectual Disability Research* 2009;53:200-16.
- 57. Cooper SA, Smiley E, Jackson A, Finlayson J, Allan L, Mantry D, et al. Adults with intellectual disabilities: prevalence, incidence and remission of aggressive behaviour and related factors. *Journal of Intellectual Disability Research* 2009;53:217-32.
- 58. Lowe K, Allen D, Jones E, Brophy S, Moore K, James W. Challenging Behaviours: Prevalence and Topographies. *Journal of Intellectual Disability Research* 2007;51(8):625-36.
- 59. Ryan R, Sunada K. Medical evaluation of persons with mental retardation referred for psychiatric assessment. *General Hospital Psychiatry* 1997;19:274-80.
- 60. Kwok H, Cheung PWH. Co-morbidity of psychiatric disorder and medical illness in people with intellectual disabilities. *Current Opinion in Psychiatry* 2007;20:443-49.
- 61. Mantry D, Cooper S-A, Smiley E, Morrison J, Allan L, Williamson A, et al. The prevalence and incidence of mental ill-health in adults with Down syndrome. *Journal of Intellectual Disability Research* 2008;52:141-55.



- 62. Chaplin RH, Thorp C, Ismail IA, Collacott RA, Bhaumik S. Psychiatric disorder in Asian adults with learning disabilities: patterns of service use. *Journal of Intellectual Disability Research* 1996;40: 298-304.
- 63. Doody GA, Johnstone EC, Sanderson TL, Cunningham-Owens DG, Muir WJ. 'Pfropfschizophrenie' revisited: schizophrenia in people with mild learning disability. *British Journal of Psychiatry* 1998;173:145-53.
- 64. Cooper SA. High prevalence of dementia among people with learning disabilities not attributable to Down's syndrome. *Psychological Medicine* 1997;27:609-16.
- 65. Cooper SA. A population-based health survey of maladaptive behaviours associated with dementia in elderly people with learning disabilities. *Journal of Intellectual Disability Research* 1997;41:481-87.
- 66. Holland AJ, Hon J, Huppert FA, Stevens S, Watson P. Population-based study of the prevalence and presentation of dementia in adults with Down's syndrome. *British Journal of Psychiatry* 1998;172:493-98.
- 67. Tyrer F, McGrother C. Cause-specific mortality and death certificate reporting in adults with moderate to profound intellectual disabilities. *Journal of Intellectual Disability Research* 2009;53(11):898-904.
- 68. Amiet C, Gourfinkel-An I, Bouzamondo A, Tordjman S, Baulac M, Lechat P, et al. Epilepsy in autism is associated with intellectual disability and gender: evidence from a meta-analysis. *Biological Psychiatry* 2008;64:577-82.
- 69. Branford D, Bhaumik S, Duncan F. Epilepsy in adults with learning disabilities. *Seizure* 1998;7:473-77.
- 70. Matthews T, Weston N, Baxter H, Felce D, Kerr M. A general practice-based prevalence study of epilepsy among adults with intellectual disabilities and of its association with psychiatric disorder, behaviour disturbance and carer stress. *Journal of Intellectual Disability Research* 2008;52:163-73.
- 71. Kerr M, Bowley C. Evidence-based prescribing in adults with learning disability and epilepsy. *Epilepsia* 2001;42(Suppl. 1):44-45.
- 72. Kerr M, Bowley C. Multidisciplinary and multiagency contributions to care for those with learning disability who have epilepsy. *Epilepsia* 2001;42(Suppl. 1):55-56.
- 73. Carvill S. Review: Sensory impairments, intellectual disability and psychiatry. *Journal of Intellectual Disability Research* 2001;45:467-83.
- 74. Starling S, Willis A, Dracup M, Burton M, Pratt C. 'Right to sight' Accessing eye care for adults who are learning disabled. *Journal of Intellectual Disabilities* 2006;10(4):337-55.
- 75. Evenhuis HM. Prevalence of visual and hearing impairment in a Dutch institutionalized population with intellectual disability. *Journal of Intellectual Disability Research* 2001;45:457-64.
- 76. Warburg M. Visual impairment in adult people with intellectual disability: Literature review. Journal of Intellectual Disability Research 2001;45:424-38.
- 77. van Schrojenstein Lantman De Valk HM, Metsemakers JF, Haveman MJ, Crebolder HF. Health problems in people with intellectual disability in general practice: a comparative study. *Family practice* 2000;17:405-07.
- 78. Tiller S, Wilson KI, Gallagher JE. Oral health status and dental service use of adults with learning disabilities living in residential institutions and in the community. *Community Dental Health* 2001;18:167-71.
- 79. Chadwick D, Jolliffe J. A descriptive investigation of dysphagia in adults with intellectual disabilities. *Journal of Intellectual Disability Research* 2009;53(1):29-43.
- 80. Straetmans JMJAA, van Schrojenstein Lantman-de Valk HMJ, Schellevis FG, Dinant G-J. Health problems of people with intellectual disabilities: the impact for general practice. *British Journal of General Practice* 2007;57:64–66.



- 81. Böhmer CJ, Niezen-de Boer MC, Klinkenberg-Knol EC, Deville WL, Nadorp JH, Meuwissen SG. The prevalence of gastroesophageal reflux disease in institutionalized intellectually disabled individuals. *American Journal of Gastroenterology* 1999;94:804-10.
- 82. Böhmer CJ, Taminiau JA, Klinkenberg-Knol EC, Meuwissen SG. The prevalence of constipation in institutionalized people with intellectual disability. *Journal of Intellectual Disability Research* 2001;45:212-18.
- 83. Emerson E, Robertson J, Gregory N, Hatton C, Kessissoglou S, Hallam A, et al. Quality and Costs of Residential Supports for People With Learning Disabilities: A Comparative Analysis of Quality And Costs In Village Communities, Residential Campuses and Dispersed Housing Schemes.

 Manchester: Hester Adrian Research Centre, University of Manchester, 1999.
- 84. Center J, Beange H, McElduff A. People with mental retardation have an increased prevalence of osteoporosis: A population study. *American Journal on Mental Retardation* 1998;103:19-28.
- 85. Tyler CVJ, Snyder CW, Zyzanski S. Screening for osteoporosis in community-dwelling adults with mental retardation. *Mental Retardation* 2000;38:316-21.
- 86. Jaffe JS, Timell AM, Gulanski BI. Prevalence of low bone density in women with developmental disabilities. *Journal of Clinical Densitometry* 2001;4: 25-29.
- 87. Gibson PA, Newton RW, Selby K, Price DA, Leyland K, Addison GM. Longitudinal study of thyroid function in Down's syndrome in the first two decades. *Archive of Diseases of Childhood* 2005;90:574-78.
- 88. Pueschel SM, Jackson IMD, Giesswein P. Thyroid function in Down's Syndrome. *Research in Developmental Disabilities* 1991;12:287-96.
- 89. Noble SE, Leyland K, Findlay CA, Clark CE, Redfern J, Mackenzie JM, et al. School based screening for hypothyroidism in Down's syndrome by dried blood spot TSH measurement. *Archive of Diseases of Childhood* 2000;82:27-31.
- 90. Mani C. Hypothyroidism in Down's syndrome. British Journal of Psychiatry 1988;153:102-04.
- 91. Grant HJ, Pickett W, Lam M, O'Connor M, Ouellette-Kuntz H. Falls among persons who have developmental disabilities in institutional and group home settings. *Journal on Developmental Disabilities* 2001;8:57-73.
- 92. Hsieh K, Heller T, Miller AB. Risk factors for injuries and falls among adults with developmental disabilities. *Journal of Intellectual Disability Research* 2001;45:76-82.
- 93. Sherrard J, Tonge BJ, Ozanne-Smith J. Injury risk in young people with intellectual disability. *Journal of Intellectual Disability Research* 2002;46:6-16.
- 94. Janicki MP, Davidson PW, Henderson CM, McCallion P, Taets JD, Force LT, et al. Health characteristics and health services utilization in older adults with intellectual disability living in community residences. *Journal of Intellectual Disability Research* 2002;46:287-98.
- 95. Wagemans A, Cluitmans J. Falls and fractures: A major health risk for adults with intellectual disabilities in residential settings. *Journal of Policy and Practice in Intellectual Disabilities* 2006; 3:136-38.
- 96. Beresford B, Rhodes D. Housing and Disabled Children. York: Joseph Rowntree Foundation, 2008.
- 97. Emerson E. Self-reported exposure to disablism is associated with poorer self-reported health and well-being among adults with intellectual disabilities in England: Cross sectional survey. *Public Health* in press.
- 98. Emerson E. Household deprivation, neighbourhood deprivation, ethnicity and the prevalence of intellectual and developmental disabilities *Journal of Epidemiology and Community Health* in press.
- 99. Emerson E, Malam S, Davies I, Spencer K. *Adults with Learning Difficulties in England 2003/4*. Leeds: Health & Social Care Information Centre, 2005.
- 100. Emerson E, Hatton C. Socio-economic position, poverty and family research. In: Glidden LM, Seltzer MM, editors. *On Families: International Review of Research on Mental Retardation*. New York: Academic Press, 2010.



- 101. Emerson E, Einfeld S, Stancliffe R. Predictors of the persistence of conduct difficulties in children with borderline or intellectual disabilities. Under review.
- 102. Emerson E, Einfeld S, Stancliffe R. The mental health of young Australian children with intellectual disabilities or borderline intellectual functioning. *Social Psychiatry and Psychiatric Epidemiology* 2010;45:579–87.
- 103. Dickinson H, Parkinson K, Ravens-Sieberer U, Schirripa G, Thyen U, Arnaud C, et al. Self-reported quality of life of 8-12-year-old children with cerebral palsy: a crosssectional European study. *Lancet* 2007;369:2171-78.
- 104. Emerson E, Einfeld S. Emotional and behavioural difficulties in young children with and without developmental delay: A bi-national perspective. *Journal of Child Psychology and Psychiatry* 2010;55:583-93.
- 105. Mir G, Nocon A, Ahmad W, Jones L. Learning Difficulties and Ethnicity. London: Department of Health, 2004.
- 106. Dykens EM, Hodapp RM, Finucane BM. *Genetics and mental retardation syndromes: A new look at behavior and interventions*. Baltimore: Paul H. Brookes Publishing, 2000.
- 107. Harris JC. *Intellectual Disability: Understanding Its Development, Causes, Evaluation, and Treatment*. Oxford: Oxford University Press, 2005.
- 108. Batshaw ML, Pellegrino L, Roizen NJ, editors. *Children with Disabilities (6th Edition)*. Baltimore: P H Brookes, 2007.
- 109. March P. How do people with a mild/moderate mental handicap conceptualise physical illness and its cause? *British Journal of Mental Subnormality* 1991;37:80–91.
- 110. Gilbert-McLeod CA, Craig KD, Rocha EM, Mathias MD. Everyday pain responses in children with and without developmental delays *Journal of Pediatric Psychology* 2000;25:301–8.
- 111. Symons FJ, Shinde SK, Gilles E. Perspectives on pain and intellectual disability. *Journal of Intellectual Disability Research* 2008;52(Pt 4):275-86.
- 112. Purcell M, Morris I, McConkey R. Staff perceptions of the communicative competence of adult persons with intellectual disabilities. *British Journal of Developmental Disabilities* 1999;45:16–25.
- 113. Rodgers J. "Whatever's on her plate": food in the lives of people with learning disabilities. British Journal of Learning Disabilities 1998;26:13-16.
- 114. Robertson J, Emerson E, Gregory N, Hatton C, Turner S, Kessissoglou S, et al. Lifestyle related risk factors for poor health in residential settings for people with intellectual disabilities. Research in Developmental Disabilities 2000;21(6):469-86.
- 115. Melville C, Hamilton S, Miller S, Boyle S, Robinson N, Pert C, et al. Carer Knowledge and Perceptions of Healthy Lifestyles for Adults with Intellectual Disabilities. *Journal of Applied Research in Intellectual Disabilities* 2009;22:298-306.
- 116. Messent PR, Cooke CB, Long J. Physical activity, exercise and health of adults with mild and moderate learning disabilities. *British Journal of Learning Disabilities* 1998;26:17-22.
- 117. Emerson E. Underweight, obesity and physical activity in adults with intellectual disability in supported accommodation in Northern England. *Journal of Intellectual Disability Research* 2005;49:134-43.
- 118. Bell A, Bhate M. Prevalence of overweight and obesity in Down's syndrome and other mentally handicapped adults living in the community. *Journal of Intellectual Disability Research* 1992;36:359-64.
- 119. Melville C, Hamilton S, Hankey C, Miller S, Boyle S. The prevalence and determinants of obesity in adults with intellectual disabilities. *Obesity Reviews* 2007;8:223-30.
- 120. Prasher VP. Overweight and obesity amongst Down's syndrome adults. *Journal of Intellectual Disability Research* 1995;39:437-41.
- 121. Fidler W, Michell RG, Charlton A. Smoking: a special need? *British Journal of Addiction* 1992;87:1583-91.



- 122. Emerson E, Turnbull L. Self-reported smoking and alcohol use by adolescents with and without intellectual disabilities. *Journal of Intellectual Disabilities* 2005;9(1):58-69.
- 123. Taggart L, McLaughlin D, Quinn B, Milligan V. An exploration of substance abuse in people with intellectual disabilities. *Journal of Intellectual Disability Research* 2006;50(8):588-97.
- 124. Fraser S, Sim J. The Sexual Health Needs of Young People with Learning Disabilities. Edinburgh: Health Scotland, 2007.
- 125. Thompson D. The sexual experience of men with learning disabilities having sex with men: Issues for HIV prevention. *Sexuality & Disability* 1994;12:221-42.
- 126. Alborz A, McNally R, Glendinning C. Access to health care for people with learning disabilities in the UK: mapping the issues and reviewing the evidence. *Journal of Health Services Research & Policy* 2005;10:173–82.
- 127. Alborz A, McNally R, Swallow A. From the Cradle to the Grave: a literature review of access to health care for people with learning disabilities across the lifespan. London: National Coordinating Centre for NHS Service Delivery and Organisation, 2003.
- 128. National Patient Safety Agency. Understanding the patient safety issues for people with learning disabilities. London: National Patient Safety Agency, 2004.
- 129. Lavis D, Cullen P, Roy A. Identification of hearing impairment in people with a learning disability: from questioning to testing. *British Journal of Learning Disabilities* 1997;25:100-05.
- 130. Yeates S. The incidence and importance of hearing loss in people with severe learning disability: the evolution of a service. *British Journal of Learning Disabilities* 1995;23:79-84.
- 131. Reynolds F, Stanistreet D, Elton P. Women with learning disabilities and access to cervical screening: retrospective cohort study using case control methods. *BMC Public Health* 2008;8:30.
- 132. Djuretic T, Laing-Morton T, Guy M, Gill M. Concerted effort is needed to ensure these women use preventive services. *British Medical Journal* 1999; 318:536.
- 133. Pearson V, Davis C, Ruoff C, Dyer J. Only one quarter of women with learning disability in Exeter have cervical screening. *British Medical Journal* 1998;316:1979.
- 134. Piachaud J, Rohde J. Screening for breast cancer is necessary in patients with learning disability. *British Medical Journal* 1998;316:1979.
- 135. Davies N, Duff M. Breast cancer screening for older women with intellectual disability living in community group homes. *Journal of Intellectual Disability Research* 2001;45:253-57.
- 136. Willis DS, et al. Breast cancer screening in women with learning disabilities: current knowledge and considerations. *British Journal of Learning Disabilities* 2008;36:171-84.
- 137. Kerr MP, Richards D, Glover G. Primary care for people with a learning disability a Group Practice survey. *Journal of Applied Research in Intellectual Disability* 1996;9:347-52.
- 138. Piachaud J, Rohde J, Pasupathy A. Health screening for people with Down's syndrome. *Journal of Intellectual Disability Research* 1998;42:341-45.
- 139. Whitfield ML, Langan J, Russell O. Assessing general practitioners' care of adult patients with learning disability: case control study. *Quality in Health Care* 1996;5:31-35.
- 140. Felce D, Baxter H, Lowe K, Dunstan F, Houston H, Jones G, et al. The Impact of Checking the Health of Adults with Intellectual Disabilities on Primary Care Consultation Rates, Health Promotion and Contact with Specialists. *Journal of Applied Research in Intellectual Disabilities* 2008;21:597-602.
- 141. Thornton C. Effective health care for people with learning disabilities: a formal carers' perspective. *Journal of Psychiatric & Mental Health Nursing* 1999;6:383-90.
- 142. Cooper SA. Deficient health and social services for elderly people with learning disabilities. *Journal of Intellectual Disability Research* 1997;41:331-38.
- 143. Chauhan U, Kontopantelis E, Campbell S, Jarrett H, Lester H. Hypothesis: Health checks in primary care for adults with intellectual disabilities: how extensive should they be? *Journal of Intellectual Disabilities Research* 2010;54:479-86.



- 144. Molyneux P, Emerson E, Caine A. Prescription of psychotropic medication to people with intellectual disabilities in primary health care settings. *Journal of Applied Research in Intellectual Disabilities* 1999;12:46-57.
- 145. Royal College of Psychiatrists, British Psychological Society, Royal College of Speech and Language Therapists. Clinical and service guidelines for supporting people with learning disabilities who are at risk of receiving abusive or restrictive practices. London: Royal College of Psychiatrists, 2007.
- 146. Department of Health. Services for People with Learning Disabilities and Challenging Behaviour or Mental Health Needs: (Revised Edition). London: Department of Health, 2007.
- 147. Emerson E, Robertson J, Gregory N, Hatton C, Kessissoglou S, Hallam A, et al. The treatment and management of challenging behaviours in residential settings. *Journal of Applied Research in Intellectual Disabilities* 2000;13:197-215.
- 148. Robertson J, Emerson E, Gregory N, Hatton C, Kessissoglou S, Hallam A. Receipt of psychotropic medication by people with intellectual disability in residential settings. *Journal of Intellectual Disability Research* 2000;44 (Pt 6):666-76.
- 149. Robertson J, Emerson E, Pinkney L, Caesar E, Felce D, Meek A, et al. Treatment and management of challenging behaviour in congregate and noncongregate community-based supported accommodation. *Journal of Intellectual Disability Research* 2005;49:63-72.
- 150. Kiernan C, Reeves D, Alborz A. The use of anti-psychotic drugs with adults with learning disabilities and challenging behaviour. *Journal of Intellectual Disability Research* 1995;39:263-74.
- 151. de Kuijper G, Hoekstra P, Visser F, Scholte FA, Penning C, Evenhuis H. Use of antipsychotic drugs in individuals with intellectual disability (ID) in the Netherlands: prevalence and reasons for prescription. *Journal of Intellectual Disability Research* 2010;54:659-67.
- 152. Forsyth B, Winterbottom P. Beds, budgets and burdens: learning disability expenditure vs workload across English health authorities. *British Journal of Psychiatry* 2002;181:200-07.
- 153. Bailey NM, Copper SA. The current provision of specialist health services to people with learning disabilities in England and Wales. *Journal of Intellectual Disability Research* 1997;41:52-59.
- 154. Morgan CL, Ahmed Z, Kerr MP. Health care provision for people with a learning disability: record-linkage study of epidemiology and factors contributing to hospital care uptake. *British Journal of Psychiatry* 2000;176:37-41.
- 155. Tuffrey-Wijne I, Hogg J, Curfs L. End of life and palliative care for people with intellectual disabilities who have cancer or other life-limiting illness: a review of the literature and available resources. *Journal of Applied Research in Intellectual Disabilities* 2007;20:331-44.
- 156. Bemal J. Telling the truth-or not: Disclosure and information for people with intellectual disabilities who have cancer. *International Journal on Disability and Human Development* 2008;7:365-70.
- 157. Hassiotis A, Barron P, O'Hara J. Mental health services for people with learning disabilities: a complete overhaul is needed with strong links to mainstream services. *British Medical Journal* 2000;321:583-84.
- 158. Roy A, Martin DM, Wells MB. Health gain through screening mental health: developing primary health care services for people with an intellectual disability. *Journal of Intellectual & Developmental Disability* 1997; 22:227-39.
- 159. Beecham J, Chadwick O, Fidan D, Bernard S. Children with severe learning disabilities: needs, services and costs. *Children & Society* 2002;16:168–81.
- 160. Branford D. A study of the prescribing for people with learning disabilities living in the community and in National Health Service care. *Journal of Intellectual Disability Research* 1994;38:577-86.
- 161. Clarke DJ, Kelly S, Thinn K, Corbett JA. Psychotropic drugs and mental retardation. *Journal of Mental Deficiency Research* 1990;34:385-95.



- 162. The Marmot Review. Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England Post-2010. London: The Marmot Review, 2010.
- 163. World Health Organization. Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the Commission on the Social Determinants of Health. Geneva: World Health Organisation, 2008.
- 164. Emerson E, Glover G. Health Checks for People with Learning Disabilities: 2008/9 & 2009/10. Durham: Improving Health & Lives: Learning Disabilities Observatory, 2010.