

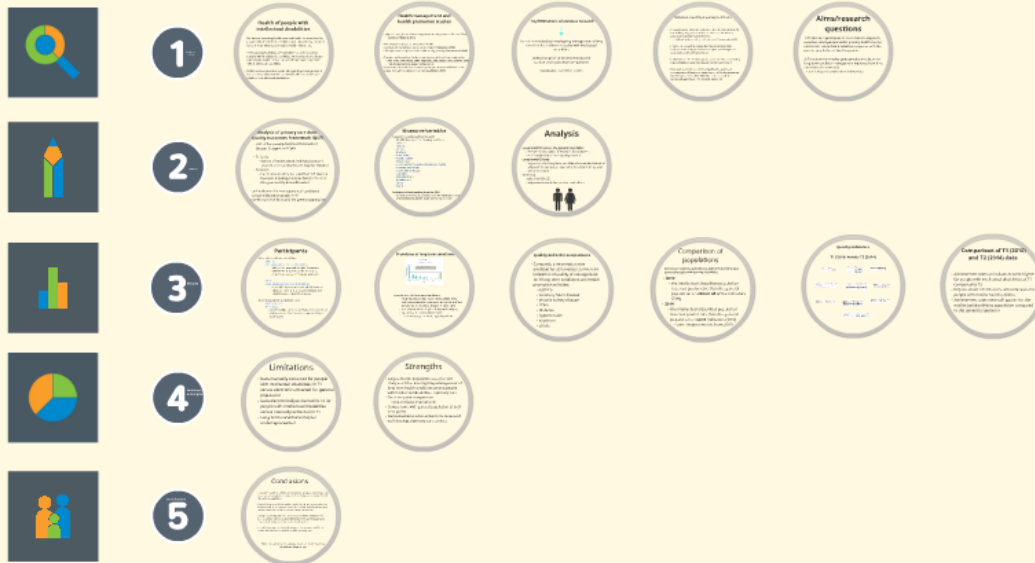
Quality of primary health care of people with intellectual disabilities in Scotland

Laura Anne Hughes-McCormack, Sally Ann Cooper, Nicola Greenlaw, Alex McConnachie, Linda Allan, Marion Baltzer, Laura McArthur, Angela Henderson, Craig Melville, Jill Morrison



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Background
& Aims

Health of people with intellectual disabilities

- Barriers to accessing health care and health care services for people with intellectual disabilities, including management of long term conditions, compound health inequalities
- Investigating how long term conditions are managed for people with intellectual disabilities, we may be able to better understand health inequalities and health needs of people with intellectual disabilities
- Little has been previously studied regarding management of long term conditions in the primary health care setting for adults with intellectual disabilities

Health management and health promotion studies

- Only one study focused on management of a long term health condition
 - Diabetes (**Taggart, 2013**)
- Two studies focused on indicators of health
 - *Cholesterol, thyroid functioning, vision, hearing* (**Chauhan, 2010**)
 - *Blood pressure, body mass index, urine testing, hearing* (**Lennox et al, 2007**)
- Five studies focused on health screening (cervical and mammography)
 - **Kerr et al, 1996, Wood, 2007, Reynolds, 2008, Osbon, 2012, Biswas, 2005**
 - include general population comparisons
- Lower rates of cervical and mammography for women with intellectual disabilities, with exception of one study (**Biswas, 2005**)

Key limitations of previous research



Lack of robust studies investigating management of long term health conditions in adults with intellectual disabilities:

Limited range of conditions investigated
Lack general population comparisons

Conclusions cannot be drawn

Indicators of quality of primary health care

- In recent years, the Scottish general practitioner contract for the delivery of general medical services has included a payment-by-performance element
 - defined by the Quality and Outcome Framework (QOF)
- Financially rewards practices for meeting pre-defined evidence-based targets in the management of long-term conditions and health promotion
- Indicators selected (annually) are based on evidence relating their completion and contribution to improved health
- Has provided a vehicle for investigating the quality of management of long-term conditions and health promotion in primary care for adults with intellectual disabilities, compared with that of the general population

Aims/research questions

1) To measure good practice in relation to long term condition management within primary health care for adults with intellectual disabilities compared with the general population at two time points

2) To determine whether good practice in relation to long term condition management improves from time one (T1) to time two (T2)

- *pre and post a health check intervention*

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Methods

Analysis of primary care data; Quality Outcomes Framework (QOF)

- Part of the geographical Health Boards of Greater Glasgow and Clyde
- T1 (2010)
 - At time of health check, individual consent taken to access primary care data for research
- T2 (2014)
 - Electronically extracted data from GP records from participating practices (90%) of Greater Glasgow and Clyde Health Board

QOF indicators for management of conditions compared between people with intellectual disabilities and the general population

Measures/variables

Long term conditions (from the QOF)

- identification any of the following conditions:
- diabetes
- epilepsy
- asthma
- psychosis
- heart failure
- hypothyroidism
- hypertension
- chronic obstructive pulmonary disease (COPD)
- coronary heart disease
- chronic kidney disease
- dementia
- atrial fibrillation
- palliative care
- cancer
- stroke

Indicators of best practice (from the QOF)

- completion of 57 quality indicators for the conditions above where identified, and for health promoting activities

Analysis

- **people with ID versus the general population**
 - Frequency data-point prevalence of conditions
 - % of completion of each quality indicator
- **people with ID only**
 - regressions for long term conditions (dependent variable) adjusted for age group, sex, neighbourhood, ability and accommodation
- SAS v 9.2
 - ORs with 95% CI-
 - adjustments made for practice level effects



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Results

Participants

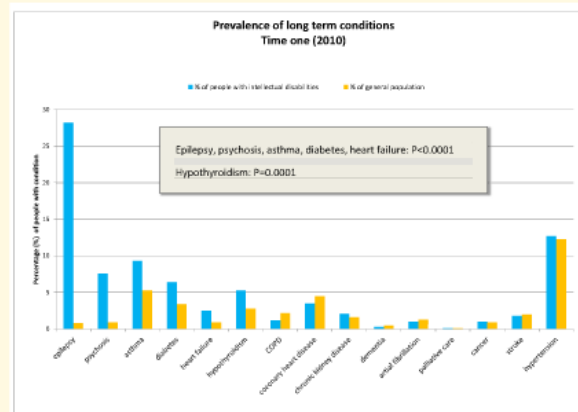
Adults with intellectual disabilities

- 2007-10
 - 727 adults with intellectual disabilities
 - 402 (55.3%) men and 325 (44.7%) women
 - 259 (35.7%) mild, 194 (26.7%) moderate,
 - 129 (17.8%) severe, 144 (19.8%) profound
- 2014
 - 3,891 adults with intellectual disabilities
 - 2,262 (58.1%) men and 1,629 (41.9%) women
 - 1058 (27.19) mild, 879 (22.59) moderate, 618 (15.88) severe, 194 (4.99) profound

General population comparison data

- 2007-10 & 2014
- N= 764,672
 - 2006/7 Quality and Outcome Framework data for all adult patients within Greater Glasgow and Clyde health board

Prevalence of long term conditions

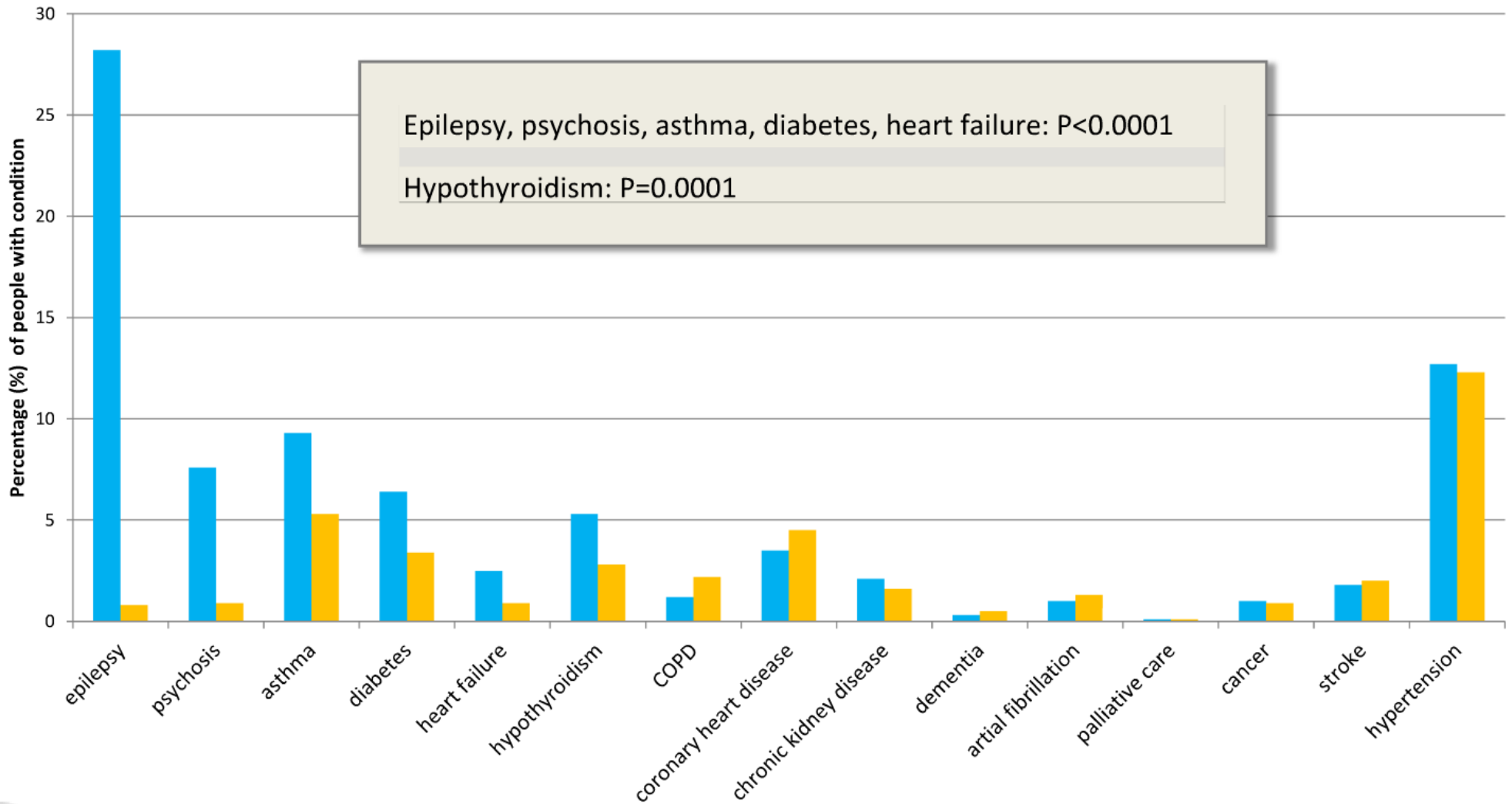


associations with long term conditions:

- neighbourhood, deprivation level, ability level, and accommodation type were not found to effect prevalence of individual long term conditions
- exception to above- higher ability with epilepsy
- age and gender associations with:
 - diabetes, hypertension, hypothyroidism

Prevalence of long term conditions Time one (2010)

■ % of people with intellectual disabilities ■ % of general population



Quality indicator comparisons

- Comparable information was available for 2010 versus 2014 on 34 indicators of quality of management for 8 long term conditions and health promotion activities:
 - asthma
 - coronary heart disease
 - chronic kidney disease
 - COPD
 - diabetes
 - hypertension
 - psychosis
 - stroke

Comparison of populations

Achievement rates on indicators in both 2010 and 2014 were poorer for people with learning disabilities:

- **2010-**
 - the intellectual disabilities population received poorer care than the general population on ***almost all*** of the indicators (74%)
- **2014-**
 - the intellectual disabilities population received poorer care than the general population on ***some*** indicators (49%)
 - some improvements from 2010

Quality indicators

T1 (2010) versus T2 (2014)

Individual Indicators	2007-2010	2014	P value
Diabetes	137/11 (100.0%)	124/131 (94.7%)	1.00
ACE inhibitor or angiotensin receptor blocker	6/11 (54.5%)	5/9 (55.6%)	0.938

Individual Indicators	2007-2010	2014	P value
Diabetes	137/11 (100.0%)	124/131 (94.7%)	1.00
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Individual Indicators	2007-2010	2014	P value
<i>Asthma</i>			
asthma review	21/59 (35.6%)	212/282 (75.2%)	<0.001
measures of variability or reversibility	3/7 (42.9%)	62/70 (88.6%)	0.0097

Individual Indicators	2007-2010	2014	P value
<i>Diabetes</i>			
HbA1c or equivalent	34/45 (75.6%)	343/349 (98.3%)	<0.001
peripheral pulses	28/42 (66.7%)	284/320 (88.8%)	<0.001
neuropathy testing	14/40 (35.0%)	284/320 (88.8%)	<0.001
blood pressure	40/43 (93.0%)	348/364 (95.6%)	0.438
blood pressure is 145/85 or less	36/40 (90.0%)	299/346 (86.4%)	0.630
micro-albuminuria test	15/40 (37.5%)	45/51 (88.2%)	<0.001
Flu jab	30/41 (73.2%)	301/316 (95.3%)	<0.001
HbA1c <7.5	21/30 (70.0%)	268/304 (88.2%)	0.011

Individual Indicators	2007-2010	2014	P value
<i>Psychosis</i>			
lithium therapy & record of serum creatinine	4/4 (100.0%)	33/33 (100%)	1.00
lithium therapy & levels in a therapeutic range	4/4 (100.0%)	31/33 (93.9%)	1.00
comprehensive care plan	18/35 (51.4%)	230/254 (90.6%)	<0.001

Individual Indicators	2007-2010	2014	P value
<i>Chronic Kidney Disease</i>			
record of blood pressure	13/13 (100.0%)	124/131 (94.7%)	1.00
blood pressure of 140/85 or less	11/11 (100.0%)	98/122 (80.3%)	0.21
ACE inhibitor or angiotensin receptor blocker	6/11 (54.5%)	9/9 (100%)	0.038

Individual Indicators	2007-2010	2014	P value
<i>Coronary Heart Disease</i>			
Blood pressure	18/25 (72.0%)	88/97 (90.7%)	0.021
Blood pressure of 150/90 or less	18/23 (78.3%)	83/90 (92.2%)	0.066
Aspirin/anti-platelet or anti-coagulant	18/25 (72.0%)	75/92 (81.5%)	0.40
ACE inhibitor or angiotensin II antagonist	1/4 (25.0%)	11/13 (84.6%)	0.053
Flu jab	15/23 (65.2%)	74/82 (90.2%)	0.0067

Individual Indicators	2007-2010	2014	P value
<i>Heart Failure</i>			
echocardiogram or specialist diagnosis	4/4 (100%)	23/23 (100%)	1.00
ACE inhibitor or angiotensin receptor blocker	5/15 (33.3%)	16/19 (84.2%)	0.004

Individual Indicators	2007-2010	2014	P value
<i>Hypertension</i>			
blood pressure of 150/90 or less	64/77 (83.1%)	397/501 (79.2%)	0.54

Individual Indicators	2007-2010	2014	P value
<i>Stroke</i>			
blood pressure	10/13 (76.9%)	86/100 (86.0%)	0.411
blood pressure reading of 150/90 or less	10/11 (90.9%)	81/93 (87.1%)	1.00
Flu jab	6/12 (50.0%)	76/88 (86.4%)	0.007
Specialist referral for further investigation	1/1 (100%)	10/16 (62.5%)	1.00
anti-platelets or anti-coagulants	7/12 (58.3%)	45/51 (88.2%)	0.027

Individual Indicators	2007-2010	2014	P value
<i>Chronic Obstructive Pulmonary Disease (COPD)</i>			
Flu jab	8/9 (88.9%)	44/48 (91.7%)	1.00
spirometry & reversibility testing	4/9 (44.4%)	8/16 (50.0%)	1.00

anti-platelets or anti-coagulants	7/12 (58.3%)	45/51 (88.2%)	0.027
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Individual Indicators	2007-2010	2014	P value
<i>Health Promotion</i>			
smoking status	163/194 (84.0%)	605/880 (68.8%)	<0.001
cessation advice or specialist referral	18/25 (72.0%)	311/429 (72.5%)	1.00
cervical smear	51/221 (23.1%)	287/818 (35.1%)	<0.001

Comparison of T1 (2010) and T2 (2014) data

- Achievement rates on indicators were higher for people with intellectual disabilities at T1 compared to T2
- Improvement of 59% on health indicators for people with intellectual disabilities
- Achievement rates were still poorer for the intellectual disabilities population compared to the general population

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**limitations
& strengths**

Limitations

- Data manually extracted for people with intellectual disabilities in T1 versus electronic extracted for general population
- Data electronically extracted in T2 for people with intellectual disabilities versus manually extracted in T1
- Long term conditions may be underrepresented

Strengths

- Largest known population-based cohort study identified investigating management of long term health conditions among people with intellectual disabilities in primary care
- Two time point comparisons
 - (pre and post intervention)
- Comparisons with general population at both time points
- Generalizable to other affluent countries with well developed primary care services

conclusions

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Conclusions

- Long term health conditions are not being managed as well in general practices for patients with intellectual disabilities compared to that of the general population
- It would help to establish routine monitoring of primary care data to follow trends in the management of long term health conditions and health promotion for adults with intellectual disabilities
- A step change improvement in primary care health outcomes was found between 2010 to 2014 in this study, in Greater Glasgow and Clyde, which provides a Directly Enhanced Service
- Consider introducing a Directly Enhanced Service more widely for adults with intellectual disabilities within primary care

This is being further investigated by the Scottish Learning Disabilities Observatory