NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

PUBLIC HEALTH DRAFT GUIDANCE

Guidance template

Issue date: April 2008

Occupational therapy and physical activity interventions to promote the mental wellbeing of older people in primary care and residential care

NICE public health guidance xx

Introduction

The Department of Health asked the National Institute for Health and Clinical Excellence (NICE or the Institute) to produce public health guidance for primary care and residential care on interventions that promote the mental wellbeing of older people. This guidance focuses on the role of occupational therapy and physical activity in the promotion of mental wellbeing in later life for people who are most disadvantaged, for example, people living in social or geographic isolation, people aged 75 and older, people with restricted physical abilities or learning disabilities, and people from black and ethnic minority groups.

The guidance is for NHS and other professionals who have a direct or indirect role in, and responsibility for, promoting older people's mental wellbeing. This includes those working in local authorities and the wider public, private, voluntary and community sectors. It will also be relevant for carers and family members who support older people indirectly or directly and may be of interest to older people themselves.

The Public Health Interventions Advisory Committee (PHIAC) has considered both a review of the evidence and an economic appraisal.

This document sets out the preliminary recommendations developed by the Committee. It does not include all the sections that will form part of the final guidance. The Institute is now inviting comments from stakeholders (listed on the NICE website at: www.nice.org.uk).

Note that this document does not constitute the Institute's formal guidance on interventions that promote the mental wellbeing of older people. The recommendations made in section 1 are provisional and may change after consultation with stakeholders and fieldwork.

The process the Institute will follow after the consultation period (which includes fieldwork) is summarised below. For further details, see 'The public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public' (this document is available on the Institute's website at: www.nice.org.uk/phprocess).

- The Committee will meet again to consider the consultation comments, the fieldwork reports and the stakeholder evidence.
- After that meeting, the Committee will produce a second draft of the guidance.
- The draft guidance goes to the NICE Guidance Executive for final sign off.

The key dates are:

Closing date for comments: 13 March 2008.
Second Committee meeting: 11 April 2008.

Details of PHIAC membership are given in appendix A and key supporting documents used in the preparation of this document are listed in appendix E.

This guidance was developed using the NICE public health intervention process.

Contents

1 Recommendations

The Public Health Interventions Advisory Committee (PHIAC) considered the evidence of effectiveness and cost effectiveness in drafting the recommendations. Note: this document does not constitute the Institute's formal guidance on this intervention. The recommendations are preliminary and may change after consultation.

The evidence statements underpinning the recommendations are listed in appendix C.

The evidence reviews, supporting evidence statements and economic analysis are available on the Institute's website at http://guidance.nice.org.uk/page.aspx?o=370746

The definition of 'mental wellbeing' used in this guidance follows that developed by NHS Scotland as part of their national programme of work on mental health improvement. This definition includes areas such as life satisfaction, optimism, self esteem, mastery and feeling in control, having a purpose in life, and a sense of belonging and support (NHS Scotland 2006).

The principles of occupational therapy (OT), as defined by the profession, aim to enable people who have physical, mental and/or social needs, either from birth or as a result of accident, illness or ageing to achieve as much as they can for themselves, so they get the most out of life (College of Occupational Therapists, 2008).

Health promotion and occupational therapy

Recommendation 1

Who is the target population?

Adults aged 65 and older living independently, with or without support, or in residential care who are most disadvantaged. This includes, for example, people living in isolation or in rural areas, people with restricted physical abilities or learning disabilities, and people from black and ethnic minority groups.

Who should take action?

- Registered occupational therapists, and health, social care or voluntary sector practitioners.

What action should they take?

- Offer regular group and/or individual health promotion sessions that follow the principles and methods of occupational therapy and health promotion. Sessions should be delivered in a setting and style that best meets the needs of the older person or group (for example, with particular attention to physical access, communication, and informality). The length of time for each session should be negotiated with the individuals involved. Sessions should aim to cover a broad range of topics and encourage people to identify and construct daily routines that help to maintain or improve their health and wellbeing, including information and advice on:
  - access to services and benefits
  - home and community safety
  - best use of local transport schemes
  - nutrition (for example healthy eating on a budget)
  - exercise
  - ensuring basic health needs are met or maintained (for example, eyesight and hearing tests).
- Invite regular feedback from participants and use it to inform the content of the service and to gauge levels of motivation.

Provision and promotion of exercise activities

Recommendation 2

Who is the target population?

Adults aged 65 and older living independently, with or without support or in residential care who are most disadvantaged. This includes, for example, people living in isolation or in rural areas, people with restricted physical abilities or learning disabilities, and people from black and ethnic minority groups.

Who should take action?

Trained exercise instructors.

What action should they take?

- In collaboration with older people and their carers, organise, plan and offer tailored exercise programmes in the community, focusing on:
  - Mixed exercise programmes of moderate intensity (including cardiovascular and resistance training).
  - Strength and resistance exercise, especially for frail older people.
  - Toning and stretching exercise.
- Ensure that exercise programmes reflect the preferences of participants
- Encourage participants to attend sessions at least once or twice a week.
- Offer a range of activities of moderate intensity (such as dancing, swimming, walking), particularly activities that promote strength, coordination and balance, aiming to achieve 30 minutes of moderate physical activity per day on 5 or more days each week.
- Invite regular feedback from participants and use it to inform the content of the service and to gauge levels of motivation.

Walking schemes

Recommendation 3

Who is the target population?

Adults aged 65 and older living independently with or without support or in residential care who are most disadvantaged. This includes, for example, people living in isolation or in rural areas, people with restricted physical abilities or learning disabilities, and people from black and ethnic minority groups.

Who should take action?

Local authorities working in partnership with leisure services, community development groups and voluntary sector organisations.

What action should they take?

- In collaboration with older people and their carers offer walking schemes of low to moderate intensity.
  - Walking schemes should be organised and led by trained workers or volunteers.
  - Walks should last about 1 hour and include at least 30–40 minutes of walking plus stretching and warm-up/cool-down exercises (depending on people's mobility and capacity).
- Arrange a group meeting at the outset of a neighbourhood walking scheme that includes:
  - introducing the walk leader and participants
  - offering opportunities for local walks at least three times a week, with timing and location to be agreed with participants and consideration given to differences in mobility and capacity
  - providing health advice and information on the benefits of walking, and stretching and warm-up/cool-down exercises.
- Recruit walk leaders from the local community and provide them with training in first aid and creating appropriate walking routes.

- Promote the message that regular participation in local walking schemes can improve mental wellbeing.
- Promote and publicise local walking schemes to increase older people's awareness of the initiative, and to ensure that they are encouraged and supported to participate fully according to personal preference, health and mobility.
- Invite regular feedback from participants and use it to inform the content of the service and to gauge levels of motivation.

Training

Recommendation 4

Who is the target population?

Professional bodies, skills councils and others responsible for developing training programmes and setting competencies, and continuing professional development (CPD) schemes for those working with older people. This includes health and social care professionals, domiciliary care staff, residential care home managers and staff, and support workers, including the voluntary sector.

Who should take action?

Professional bodies, skills councils and other organisations responsible for developing training programmes and setting competencies, standards and CPD schemes.

What action should they take?

- Involve registered occupational therapists and health promotion practitioners in the design and development of locally relevant training schemes for those working with older people. Training schemes should include:
  - essential knowledge of the principles and methods of occupational therapy and health promotion

  - effective communication skills to engage with older people and their carers (including group facilitation skills or a person-centred approach).
- Enable practitioners to:
  - help older people to identify and construct daily routines that help to maintain or improve their wellbeing
  - promote exercise routines and other activities that help older people develop and maintain their physical and mental wellbeing according to individual preference
  - improve, maintain or support older people's ability to carry out daily activities and promote independence.

2 Public health need and practice

There are 9.7 million people aged 65 and older in the UK, most of whom lead happy, well-balanced and independent lives. However, the transition into later life can be affected by many different variables, including physical health, financial security, societal attitudes, geographical location, access to support and services and responsibility for the care of others (Age Concern England and Mental Health Foundation 2004).

Several public, private and voluntary sector organisations report that the health and mental wellbeing of particular groups of older people is unnecessarily compromised. 40% of older people attending GP surgeries, and 60% of those living in residential institutions, have 'poor mental health' (UK Inquiry into Mental Health and Well-being in Later Life 2006). By 2020, one in five UK citizens will be aged 65 or older (DH 2005a). This ongoing increase in longevity among the UK population suggests that a greater proportion will be at risk of compromised health and wellbeing. Health and social care services will need to shift their focus to help prevent ill health through the promotion of healthy lifestyles (DH 2006).

The maintenance of physical activity in later life is central to improving physical health. Regular exercise has beneficial effects on general health, mobility and independence, and is associated with a reduced risk of depression and related benefits for mental wellbeing, such as reduced anxiety, and enhanced mood and self-esteem (DH 2005b). Physical and mental health, in turn, also have an impact on older people's economic circumstances and on their ability to participate in society (Marmot et al. 2003).

Five key factors affect the mental health and wellbeing of older people: discrimination (for example, by age or culture), participation in meaningful activity, relationships, physical health (including physical capability to undertake everyday tasks), and poverty (UK Inquiry into Mental Health and Well-being in Later Life 2006). The Social Exclusion Unit reports that many older people continue to experience discrimination despite the establishment of the Commission for Equality and Human Rights (including age equality) and the National Service Framework (NSF) for Older People, which aims to stop age discrimination in health and social care (DH 2001). Isolation is a particular risk factor for older people from minority ethnic groups, those in rural areas and for people older than 75 who may be widowed or live alone (Office of the Deputy Prime Minister 2006).

Health and social care services have an important role in promoting and maintaining physical activity, health and independence (DH 2004). There is a decline in physical activity with increased age which may be associated with lack of opportunities and lack of encouragement (UK Inquiry into Mental Health and Well-being in Later Life 2006). Exercise and physical activity can be tailored to individual's needs and abilities, increasing access for people with disabilities and mobility needs (DH 2004).

Social activities, social networks, keeping busy and 'getting out and about', good physical health and family contact are among the factors most frequently mentioned by older people themselves as important to their mental wellbeing (Third Sector First 2005; Audit Commission 2004).

Recent guidance on the provision of activities for older people in residential care homes reports activity provision as being vital to the health and wellbeing of residents (College of Occupational Therapists and National Association for Providers of Activities 2007). Self determination and a level of independence have also been associated with health and wellbeing. Self determination, in daily life, means ensuring that people have as much choice as possible about personal routines and activities (for example, when they eat or sleep, get up, go out or spend time alone) (Personal Social Services Research Unit 2006).

Since 2000, local authorities have had discretionary power to promote social, economic and environmental wellbeing, and a duty to engage the local community (including older people) in community planning (Local Government Act 2000). Better Government for Older People is a UK-wide partnership in which older people are the key partners. It aims to ensure older people are engaged as citizens at all levels of decision making, and in shaping the development of strategies and services for an ageing population.

Government initiatives at local and national level all emphasise the need for local authorities, health and social care services to prioritise improvement in older people's services, and to involve older people themselves in service planning, particularly those groups whose health and wellbeing may be compromised by advanced age or disability (DH 2006).

Reforms to home care in England in 2008 will give older people greater independence and the right to choose their own home helps and personal carers through means-tested personal budgets (DH 2007).

3 Considerations

PHIAC took account of a number of factors and issues in making the recommendations.

3.1 The close association between mental wellbeing and physical health is supported by the inclusion of social, mental and physical wellbeing components in most standardised quality-of-life measures or general health questionnaires. PHIAC

recognised that the distinctions between mental wellbeing and physical health in some of the evidence identified may be artificial.

3.2 Older people's mental wellbeing is affected by a range of factors, from an individual's makeup, personal circumstances and family background to the community in which they live, and society at large. PHIAC recognises that this guidance, though based on a review of the effectiveness and cost-effectiveness of interventions to improve mental wellbeing, can only be one element of a broader, multilevel strategy to improve the mental wellbeing of older people.

3.3 PHIAC recognised that the recommendations do not stand alone and that they should be implemented in conjunction with meeting basic healthcare needs as well as further health promotion, prevention and treatment guidelines and protocols (see section 7 for examples).

3.4 The review identified a broad range of interventions and included evidence rarely found in traditional systematic reviews, notably qualitative research. However, most studies were of poor quality and used small samples that might not accurately represent the target population. In addition, few studies included the information needed to answer subsidiary questions about the effective components of an intervention. The committee also acknowledged that factors other than physical activity or exercise may have affected mental wellbeing (for example, the impact of social interactions, time of day or some other unknown factor, etc).

3.5 There was a lack of evidence on how to promote mental wellbeing among older people in general, and in particular those considered to be isolated, vulnerable and disadvantaged. Groups under-represented in the evidence identified include:

- people aged 80 and older
- people with restricted physical abilities
- people with learning difficulties
- people from black and minority ethnic groups
- older carers
- people living in rural areas
- lesbian, gay and transgender older people.

3.6 PHIAC noted that many of these groups have high unmet needs. The absence of specific recommendations for them indicates a lack of research. PHIAC noted that the gap in evidence for these groups needs to be addressed in future research and its funding. Commissioners and managers of services need in the meantime to consider how proposed interventions could be effectively delivered to these population groups and build in locally relevant feedback mechanisms for service users as standard practice. The committee recognised the value of alternative sources of evidence from local practice and voluntary organisations. Although such evidence will not have been tested robustly the committee recognised that such work may provide valuable information.

3.7 Much of the evidence in the peer-reviewed literature relates to clinical measures of anxiety or depression. It was excluded to avoid overlap with other NICE guidance.

3.8 There was limited evidence of the cost effectiveness of interventions. As a result, it was not possible to extrapolate the outcomes from many of the studies identified in the effectiveness review to allow a cost–utility analysis.

3.9 PHIAC also recognised that an intervention not considered to be cost effective from a health perspective may be cost effective with respect to associated long-term social consequences. However, the reviews reported no evidence of the long-term effectiveness of

the interventions and so the effect on such outcomes could not be identified.

3.10 Almost all studies of interventions to promote mental wellbeing in people aged 65 years and over have examined the effects achieved over the short term, reporting within weeks or months, up to a maximum of 1 year. It should be noted that assumptions that extrapolate short-term effects to the long term are subject to considerable uncertainty.

3.11 An intervention in current use that is proving effective in local practice but is not covered in the recommendations in this guidance should not be seen as ineffective and should not necessarily be discontinued. These recommendations are based on the evidence from peer-reviewed literature available at the time of writing and a range of interventions may not have been evaluated.

3.12 PHIAC recognised that many older people are carers themselves. The committee considered the importance of carers as a particular group having dual responsibility: to maintain their own mental wellbeing and that of the people they care for. The economic value of carers' unpaid support of frail, sick, or disabled relatives has increased in the past 4 years. The committee recognised that the context of carers' daily lives can increase their vulnerability to social isolation and poverty, and can have a marked effect on their ability to sustain a good quality of life for themselves and the people they care for.

3.13 PHIAC recognised that for the recommended interventions to be implemented effectively, levels of staffing and training requirements will need to be considered.

4 Implementation

NICE guidance can help:

- NHS organisations meet DH standards for public health as set out in the seventh domain of 'Standards for better health' (updated in 2006). Performance against these standards is assessed by the Healthcare Commission, and forms part of the annual health check score awarded to local healthcare organisations.

- NHS organisations and local authorities (including social care and services for older people) meet the requirements of the government's 'National standards, local action, health and social care standards and planning framework 2005–2008'.

- National and local organisations within the public sector meet government indicators and targets to improve health and reduce health inequalities.

- Local authorities fulfil their remit to promote the economic, social and environmental wellbeing of communities.

- Local NHS organisations, local authorities and other local public sector partners benefit from any identified cost savings, disinvestment opportunities or opportunities for re-directing resources.

NICE will develop tools to help organisations implement this guidance. Details of the tools will be available on our website after the guidance has issued (www.nice.org.uk/PHxxx).

5 Recommendations for research

This section will be completed in the final guidance document.

More detail on the evidence gaps identified during the development of this guidance is provided in appendix D.

6 Updating the recommendations

This section will be completed in the final guidance document.

7 Related NICE guidance

Published

Dementia: Supporting people with dementia and their carers in health and social care. NICE clinical guideline 42 (2006). Available from: www.nice.org.uk/CG042

Depression: management of depression in primary and secondary care, NICE clinical guideline 23 (April 2007). Available from: www.nice.org.uk/CG023

Nutrition support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition. NICE clinical guideline 32 (2006). Available from: www.nice.org.uk/CG032

Falls: the assessment and prevention of falls in older people. NICE clinical guideline 21 (2004). Available from: www.nice.org.uk/CG21

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College of Occupational Therapists (2008) What is occupational therapy? [online]. Available from: http://www.cot.org.uk/public/promotingot/what/intro.php [accessed 24 January 2008].

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Department of Health (2001) National service framework for older people. London: Department of Health.

(DH 2004) At least five a week: evidence on the impact of physical activity and its relationship to health. London: Department of health

Department of Health (2005a) Securing better mental health as part of active ageing. London: Department of Health.

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Department of Health (2006) Our health, our care, our say: a new direction for community services. London: Department of Health.

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Marmot M, Banks J, Blundell R, et al, editors (2003) English Longitudinal Study on Ageing. Health, wealth and lifestyles of the older population in England. London: Institute for Fiscal Studies.

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Office of the Deputy Prime Minister (2006) A sure start to later life: ending inequalities for older people – a Social Exclusion Unit final report. London: Office of the Deputy Prime Minister.

Personal Social Services Research Unit (2006) Control, well-being and the meaning of home in care homes and extra care housing. Research summary 38 [online]. Available from: www.pssru.ac.uk/pdf/rs038.pdf

Third Sector First (2005) “Things to do, places to go.” Promoting mental health and wellbeing in later life – a report for the UK inquiry into mental health and well-being in later life. London, Age Concern England

UK Inquiry into Mental Health and Well-Being in Later Life (2006) Promoting mental health and wellbeing in later life. London: Age Concern and Mental Health Foundation.

Appendix A: membership of the Public Health Interventions Advisory Committee (PHIAC), the NICE Project Team and external contractors

Public Health Interventions Advisory Committee (PHIAC)

NICE has set up a standing committee, the Public Health Interventions Advisory Committee (PHIAC), which reviews the evidence and develops recommendations on public health interventions. Membership of PHIAC is multidisciplinary, comprising public health practitioners, clinicians (both specialists and generalists), local authority employees, representatives of the public, patients and/or carers, academics and technical experts as follows.

Professor Sue Atkinson CBE Independent Consultant and Visiting Professor, Department of Epidemiology and Public Health, University College London

Mr John F Barker Associate Foundation Stage Regional Adviser for the Parents as Partners in Early Learning Project, DfES National Strategies

Professor Michael Bury Emeritus Professor of Sociology, University of London. Honorary Professor of Sociology, University of Kent

Professor Simon Capewell Chair of Clinical Epidemiology, University of Liverpool

Professor K K Cheng Professor of Epidemiology, University of Birmingham

Dr Richard Cookson Senior Lecturer, Department of Social Policy and Social Work, University of York

Mr Philip Cutler Forums Support Manager, Bradford Alliance on Community Care

Professor Brian Ferguson Director, Yorkshire and Humber Public Health Observatory

Professor Ruth Hall Regional Director, Health Protection Agency, South West

Ms Amanda Hoey Director, Consumer Health Consulting Limited

Mr Alasdair J Hogarth Head Teacher, Archbishops School, Canterbury

Mr Andrew Hopkin Assistant Director, Local Environment, Derby City Council

Dr Ann Hoskins Deputy Regional Director of Public Health/Medical Director, NHS North West

Ms Muriel James Secretary, Northampton Healthy Communities Collaborative and the King Edward Road Surgery Patient Participation Group

Professor David R Jones Professor of Medical Statistics, Department of Health Sciences, University of Leicester

Dr Matt Kearney General Practitioner, Castlefields, Runcorn. GP Public Health Practitioner, Knowsley

Ms Valerie King Designated Nurse for Looked After Children, Northampton PCT, Daventry and South Northants PCT and Northampton General Hospital. Public Health Skills Development Nurse, Northampton PCT

CHAIR Professor Catherine Law Professor of Public Health and Epidemiology, Institute of Child Health, University College London

Ms Sharon McAteer Public Health Development Manager, Halton and St Helens PCT

Mr David McDaid Research Fellow, Department of Health and Social Care, London School of Economics and Political Science

Professor Klim McPherson Visiting Professor of Public Health Epidemiology, Department of Obstetrics and Gynaecology, University of Oxford

Professor Susan Michie Professor of Health Psychology, BPS Centre for Outcomes Research & Effectiveness, University College London

Dr Mike Owen General Practitioner, William Budd Health Centre, Bristol

Ms Jane Putsey Lay Representative, Chair of Trustees of the Breastfeeding Network

Dr Mike Rayner Director, British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford

Mr Dale Robinson Chief Environmental Health Officer, South Cambridgeshire District Council

Ms Joyce Rothschild School Improvement Adviser, Solihull Local Authority

Dr Tracey Sach Senior Lecturer in Health Economics, University of East Anglia

Professor Mark Sculpher Professor of Health Economics, Centre for Economics (CHE), University of York

Dr David Sloan Retired Director of Public Health

Dr Dagmar Zeuner Joint Director of Public Health, Hammersmith and Fulham PCT

Expert co-optees to PHIAC:

Dr June Crown Vice President, Age Concern

Ms Imelda Redmond Chief Executive, Carers UK

Professor Naina Patel OBE Executive Director, Policy Research Institute Ageing and Ethnicity (PRIAE)

NICE Project Team

Mike Kelly
CPHE Director

Tricia Younger
Associate Director

Linda Sheppard
Analyst

Clare Wohlgemuth
Analyst

Bhash Naidoo
Technical Adviser (Health Economics).

External contractors

External reviewers: effectiveness and cost-effectiveness review and economic appraisal

Review 1: Public health interventions to promote mental well-being in people aged 65 and over: systematic review of effectiveness and cost-effectiveness was carried out by University of Wales, Bangor. The principal authors were:

Professor Vanessa Burholt

Dr Dyfrig Hughes

Ms Pat Linck

Mr Rhodri Morgan

Ms Carla Reeves

Professor Ian Russell

Ms Seow Tien Yeo

Dr Rhiannon Tudor Edwards

Dr Gill Windle

Professor Bob Woods

Appendix B: summary of the methods used to develop this guidance

Introduction

The report of the review and economic appraisal include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the PHIAC meetings provide further detail about the Committee's interpretation of the evidence and development of the recommendations.

All supporting documents are listed in appendix E and are available from the NICE website at: http://guidance.nice.org.uk/page.aspx?o=370746

The guidance development process

The stages of the guidance development process are outlined in the box below.

1. Draft scope

2. Stakeholder meeting

3. Stakeholder comments

4. Final scope and responses published on website

5. Reviews and cost-effectiveness modelling

6. Synopsis report of the evidence (executive summaries and evidence tables) circulated to stakeholders for comment

7. Comments and additional material submitted by stakeholders

8. Review of additional material submitted by stakeholders (screened against inclusion criteria used in reviews)

9. Synopsis, full reviews, supplementary reviews and economic modelling submitted to PHIAC

10. PHIAC produces draft recommendations

11. Draft recommendations published on website for comment by stakeholders and for field testing

12. PHIAC amends recommendations

13. Responses to comments published on website

14. Final guidance published on website

Key questions

The key questions were established as part of the scope. They formed the starting point for the reviews of evidence and facilitated the development of recommendations by PHIAC. The overarching question was:

What are the most effective and cost effective ways for primary and residential care services to promote the mental wellbeing of older people?

The following subsidiary questions were considered:

1. What is the frequency and duration of an effective intervention?

2. What are the significant features of an effective intervener?

3. Are interventions that engage older people in their design and delivery more effective than those that do not?

4. Are interventions that engage immediate family members or carers more effective than those that do not?

5. Does the intervention lead to any adverse or unintended effects?

6. What are the barriers to and facilitators of effective implementation?

Reviewing the evidence of effectiveness

A review of effectiveness was conducted for interventions to promote mental wellbeing in people aged 65 and over.

Identifying the evidence

The following databases were searched for all study types for the period from January 1993 to February 2007:

- Age Info
- Ageline
- AMED
- ASSIA
- British Nursing Index
- CINAHL
- Cochrane Database of Systematic Reviews (CDSR)
- Cochrane Central Register of Controlled Trials
- Database of Abstracts of Reviews of Effectiveness (DARE)
- EmBase
- HMIC
- Medline

- National Electronic Library for Health (NELH) – specifically the Specialist Libraries for Later Life and Mental Health
- National Research Register
- Current Controlled Trials
- PsycInfo
- Research Findings Register
- SIGLE
- Social Care Online
- Social Science Citation Index
- Sociological Abstracts

The following websites were searched for all study types for the period from January 1993 to February 2007:

- Age Concern England http://www.ageconcern.org.uk/
- Centre for Policy on Ageing http://www.cpa.org.uk/index.html
- Department for Work and Pensions http://www.dwp.gov.uk/
- Help the Aged http://www.helptheaged.org.uk/en-gb
- Joseph Rowntree Foundation http://www.jrf.org.uk/
- Mental Health Foundation http://www.mentalhealth.org.uk/
- National Institute for Health & Clinical excellence (NICE) http://www.nice.org.uk/ (including past work by the Health Development Agency, searched separately within the site at http://www.nice.org.uk/page.aspx?o=hda.publications)
- Sainsbury Centre for Mental Health http://www.scmh.org.uk/80256FBD004F6342/vWeb/wpKHAL6S2HVE
- Scottish Executive – research section of website http://www.scotland.gov.uk/Topics/Research/Research
- UK Independent Inquiry into Mental Health http://www.mhilli.org/index.aspx
- Welsh Assembly government – health and social care section http://new.wales.gov.uk/topics/health/?lang=en

Further details of the databases, search terms and strategies are included in the review report.
www.nice.org.uk/guidance/index.jsp?action=folder&o=36395

Selection criteria

Studies were included in the effectiveness reviews if:

- They included older people, for example, studies of 50–70-year-old people, but only if they subdivided results by age groups.
- The target population was people aged 65 and older living at home, in the community, in supported housing or in residential care homes.
- They included interventions and activities that promote or sustain mental wellbeing in older people, provided by their carers, families, peers, practitioners, professionals or volunteers.

The wide range of interventions considered included:

  - self-care interventions (for example, health promotion, education, advice and information, exercise and physical activity and dietary advice)
  - psychological interventions (for example, cognitive training, relaxation techniques)
  - social interventions (for example, peer/social support, volunteering, group activity or participation, befriending, leisure activities)
  - environmental interventions (for example, housing adaptations, low-level support, technology, transport).

All study designs were included, and their limitations noted.

Interventions were included that aimed to promote, improve, enhance, sustain and benefit mental wellbeing and that included validated measures and self-reported indicators of outcomes such as: quality of life, autonomy, acceptance, purpose in life, control, affect, resilience, psychological wellbeing, competence, happiness, optimism, personal growth and self-esteem (further details are given in the full review).

Studies were excluded if:

- they included older people undergoing treatment for a clinically diagnosed physical illness (for example, cancer) or mental illness (for example, dementia)
- they made assessments for long-term continuing care
- they included community interventions to improve the physical and social environment not targeted directly at people aged 65 and older, or their carers
- they were tailored to people in acute or palliative care
- they were medical or surgical interventions
- they were related to pre-retirement financial planning schemes
- they used specific therapeutic interventions (for example, reminiscence therapy) covered by NICE clinical guidelines.

Quality appraisal

Included papers were assessed for methodological rigour and quality using the NICE methodology checklist, as set out in the NICE technical manual 'Methods for development of NICE public health guidance' (see appendix E). Each study was described by study type and graded (++, +, –) to reflect the risk of potential bias arising from its design and execution:

Study type

- Meta-analyses, systematic reviews of RCTs or RCTs (including cluster RCTs).
- Systematic reviews of, or individual, non-randomised controlled trials, case-control studies, cohort studies, controlled before-and-after (CBA) studies, interrupted time series (ITS) studies, correlation studies.
- Non-analytical studies (for example, case reports, case series).
- Expert opinion, formal consensus.

Study quality

++ All or most criteria have been fulfilled. Where they have not been fulfilled the conclusions are thought very unlikely to alter.

+ Some criteria fulfilled. Those criteria that have not been fulfilled or not adequately described are thought unlikely to alter the conclusions.

– Few or no criteria fulfilled. The conclusions of the study are thought likely or very likely to alter.

The interventions were also assessed for their applicability to the UK and the evidence statements were graded as follows:

A likely to be applicable across a broad range of settings and populations

B likely to be applicable across a broad range of settings and populations, assuming they are appropriately adapted

C applicable only to settings or populations included in the studies – broader applicability is uncertain

D applicable only to settings or populations included in the studies.

Summarising the evidence and making evidence statements

The review data were summarised in evidence tables (see full reviews).

The findings from the review were synthesised and used as the basis for a number of evidence statements relating to the key question. The evidence statements reflect the strength (quantity, type and quality) of evidence and its applicability to the populations and settings in the scope.

Economic analysis

The economic appraisal consisted of a review of economic evaluations and a cost-effectiveness analysis.

Review of economic evaluations

The following databases were searched for the period from January 1993 to February 2007:

- ECONLIT
- HEED
- NHS EED

The search strategies for these reviews were developed by NICE in collaboration with the Centre for Reviews and Dissemination at the University of York. Further detail can be found in the full reviews: http://guidance.nice.org.uk/page.aspx?o=370746.

For the health economic and modelling review, studies were identified that included economic evaluation/analyses as well as health economics, cost benefit, cost containment, cost effectiveness, cost utility, cost allocation, socioeconomics, healthcare costs and healthcare finance.

For published studies that met the inclusion criteria the quality of the evidence was established using the Drummond checklist (Drummond MF, Jefferson TO (1996) Guidelines for authors and peer reviewers of economic submissions to the BMJ. *BMJ* 313: 275–83.)

Cost-effectiveness analysis

Interventions identified in the effectiveness review that did not have supporting economic evidence were selected for inclusion in an economic model developed for the assessment of benefits (expressed in quality-adjusted life years; QALYs) relative to their respective costs. Algorithms were applied to the profile of scores covering physical and emotional health used in the identified studies, often measured by means of the SF-36 or SF-12 questionnaires, to derive SF-6D health state utility indices to enable the calculation of cost utility estimates. The results are reported in 'Public health interventions to promote mental well-being in people aged 65 and older: systematic review of effectiveness and cost-effectiveness'. They are available on the NICE website at: http://guidance.nice.org.uk/page.aspx?o=370746

Fieldwork

This section will be completed in the final document.

How PHIAC formulated the recommendations

At its meeting in September 2007 PHIAC considered the evidence of effectiveness and cost effectiveness to determine:

- Whether there was sufficient evidence (in terms of quantity, quality and applicability) to form a judgement.
- Whether, on balance, the evidence demonstrates that the intervention is effective or ineffective, or whether it is equivocal.
- The typical size of effect where there is one.

PHIAC developed draft recommendations through informal consensus, based on the following criteria.

- Strength (quality and quantity) of evidence of effectiveness and its applicability to the populations/settings referred to in the scope.
- Effect size and potential impact on population health and/or reducing inequalities in health.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of risks and benefits.
- Ease of implementation and the anticipated extent of change in practice that would be required.

Where possible, recommendations were linked to an evidence statement(s) (see appendix C for details). Where a recommendation was inferred from the evidence it is indicated by the reference ‘IDE’ (inference derived from the evidence).

Appendix C: the evidence

This appendix sets out the evidence statements taken from the review and links them to the relevant recommendations (see appendix B for the key to study types and quality assessments). The evidence statements are presented here without references – these can be found in the full review (see appendix E for details).It also sets out a brief summary of findings from the economic appraisal.

Evidence statement 1 indicates that the linked statement is numbered 1 in the review 'Public health interventions to promote mental well-being in people aged 65 and over: systematic review of effectiveness and cost-effectiveness'.

The review and economic appraisal are available on the NICE website http://guidance.nice.org.uk/page.aspx?o=370746. Where a recommendation is not directly taken from the evidence statements, but is inferred from the evidence, this is indicated by IDE (inference derived from the evidence) below.

Where PHIAC has considered other evidence, it is linked to the appropriate recommendation below. It is also listed in the additional evidence section of this appendix.

Recommendation 1: evidence statements 7 and 17

Recommendation 2: evidence statements 1, 2, 3 and 17

Recommendation 3: evidence statements 4 and 18

Recommendation 4: IDE

Evidence statements

Evidence statement 1 (Mixed exercise)

Two meta-analyses (Arent et al., 2000, MA+; Netz et al. 2005, MA+), together comprising 68 controlled trials from many developed countries, since augmented by four other rigorous trials in the Netherlands (2), Norway and the US, together provide strong evidence that mixed exercise programmes generally have small-to-moderate effects on mental well-being. As the reported exercise programmes cover a range of types, settings and countries, firm conclusions about the duration of programmes and the frequency of sessions are difficult. It is clear, however, that exercise of moderate intensity (not well defined in the meta-analyses) has beneficial effects on physical symptoms and psychological well-being.

The programmes evaluated were generally community-based, well organised and run by trained instructors. The findings apply to similar populations (relatively healthy and independent, and motivated to take exercise) in similar community settings in the UK. The sole qualitative study (Hardcastle and Taylor, 2001; Q+) highlights the importance of appropriate facilities and good supervision.

Evidence statement 2 (Strength and resistance exercises)

Meta-analysis of four US trials that included a total of 1733 independent frail older people aged 65+ living in the community. Four of the SF-36 scales were used to evaluate similar resistance exercise interventions. A significant small-to-moderate improvement in emotional health was reported (Schechtman and Ory, 2001; MA+). The findings are likely to be broadly applicable to frail older people in a range of settings in the UK.

Of six smaller controlled studies evaluating the benefit of resistance exercise for older people in general, five reported significant positive effects, mostly on the POMS measure (a self-reported measure of general mood over the past week). As all six were of poor quality, this finding should not be considered robust.

Evidence statement 3 (Aerobic exercise)

A medium-sized RCT in the US showed that both interventions – supervised aerobic brisk walking and 'toning & stretching' – generated similar trajectories of MUNSH and SWLS scores over 12 months in sedentary adults aged 60 to 75; these trajectories showed significant growth in happiness and satisfaction over the six-month exercise period, followed by a significant decrease at 12 months (McAuley et al. 2000, RCT+). The findings are likely to be broadly applicable to similar populations in the UK.

Evidence statement 4 (Walking interventions)

A walking programme delivered to older people in 28 heterogeneous neighbourhoods in Portland, Oregon by trained leaders three times a week over six months improved SF-12 mental health and SWLS life satisfaction scores relative to control neighbourhoods (Fisher and Li, 2004, Cluster RCT+). This cluster randomised trial recruited 279 people to the intervention group (of whom 156 completed the intervention) and compared them with 303 controls who received education only. Though recruitment and retention of participants is important for such programmes, the results are likely to be broadly applicable to similar populations in the UK.

Evidence statement 8 (Group-based health promotion)

There is evidence from one well-designed longitudinal trial (Clark et al. 1997, RCT++; Clark et al. 2001, RCT++) that weekly educational sessions led by occupational therapists promoted and maintained positive changes in the SF-36 mental health score in participants recruited from two federally-subsidised apartment complexes for older adults in the US. Though the findings are likely to be broadly applicable to a similar population in the UK, the findings may not generalise to those in other circumstances (for example, owner–occupiers and nursing home residents). A small pilot study adapted the intervention for the UK context (Mountain et al. 2006; Q+). The findings indicate that the intervention 'Lifestyle Matters' is acceptable to older people with diverse health status living in private housing, and a range of positive benefits were reported.

Cost-effectiveness evidence

In general, community-based exercise programmes delivered by exercise professionals and activity counselling interventions delivered by primary care practice nurses were found to be cost effective with respect to mental wellbeing outcomes.

Two published economic evaluations based on RCTs were identified for inclusion in the review. One study was a community based mixed exercise programme for the over 65s conducted in the UK (Munro et al. 2004). The second study was of a health education programme conducted in the US that a preventive occupational therapy program in Well-Elderly Study (Hay et al. 2002). Both studies were found to be cost-effective.

Five studies that described three interventions were considered for the health economic analysis; counselling programmes to promote physical activity (Halbert et al. 2000; Helbostad et al. 2004; Kerse et al. 2005), a community-based walking scheme (Fisher et al. 2004), and a proactive nursing health promotion intervention (Markle-Reid et al. 2006).

The provision of advice from exercise specialists and group- and home-based exercise programmes led by physiotherapists were not considered cost-effective. The provision of activity counselling or “Green Prescription”, by primary care practice nurses was considered moderately cost-effective over 6 months. However, the provision of health promotion information by community nurses was not considered cost-effective over 6-months. Compared with the control group, a community-based walking intervention appeared to be most cost-effective.

Evidence statement 17 (Cost-effectiveness review)

Two studies provided good evidence about the cost-effectiveness of interventions to improve the mental well-being of older people. First Hay and coworkers (2002; RCT+) showed that a two-hour group session of preventive advice from an occupational therapist per week is cost-effective in the US with an incremental cost per QALY of $10,700 (95% CI $6,700 to $25,400).

Secondly Munro et al (2004; RCT+) showed that twice-weekly exercise classes led by qualified instructors are probably cost-effective in the UK with an incremental cost per QALY of £12,100 (95% CI = £5,800 to £61,400). While both studies are sound, one cannot be confident that such sparse findings will apply to similar populations (relatively healthy, living independently, and motivated to take advice and exercise) in similar community-based settings in the UK.

Evidence statement 18 (Cost-effectiveness analyses)

There are only two published economic analyses of interventions to improve the mental well-being of older people (evidence statement 16). To complement these sparse data needs economic modelling based on the integration of existing studies of effectiveness and existing sources of data about patient utilities and resource costs. The most cost-effective intervention was a thrice-weekly community-based walking programme, delivered to sedentary older people who are able to walk without assistance (Fisher & Li 2004; Cluster RCT+). Modelling yielded an incremental cost per QALY of £7,400 after six months, which is comparable with the two published economic analyses. Modelling was also used to enhance three RCTs of advice about physical activity. Such advice had an estimated incremental cost per QALY of £26,200 when modelled from Kerse and coworkers (2005; NCT+), who estimated the effects of the primary care 'green prescription' counselling programme in New Zealand. The estimated incremental cost per QALY rose to £45,600 when modelled from Markle-Reid and coworkers. (2006; RCT++), who evaluated proactive health promotion by nurses in Canada in addition to usual home care for people over 75; and to £106,232 based on the modelling of the Norwegian physiotherapist-led exercise programme described by Helbostad et al., (2004; RCT+). However Halbert and coworkers (2000; RCT+) reported decreased mental wellbeing in response to 20 minutes of individual advice on physical activity by an exercise specialist in general practice in Australia. Thus the advice was dominated by the control group to whom no advice was given.

Appendix D: gaps in the evidence

Few rigorous assessments of the effectiveness and cost effectiveness of interventions to promote mental wellbeing in people aged 65 and older have taken place in the UK. Future studies should be sufficiently powered to detect changes in mental wellbeing (for example maintenance, improvement or worsening of mental wellbeing). In addition, the outcome measures used should be appropriate to detect change across different groups of older people and consistent across studies. PHIAC identified a number of gaps in the evidence relating to the interventions under examination, based on an assessment of the evidence. These gaps are set out below.

1. There was no evidence that evaluated the effectiveness of mental wellbeing interventions across different groups of older people, whether by age, cultural background, or sexual orientation; nor were any identified that targeted alleviating poverty or living on a reduced income.

2. There were few or no evaluations that determined which intervention was most effective. For example, whether interventions should focus directly on mental wellbeing (for example maintaining quality of life or self-esteem) or on improving independence and ability to carry out day-to-day tasks that were personally relevant to individuals.

3. No evaluations were found of environmental interventions (for example adaptive equipment or assistive technologies). In most cases where environmental interventions were included an outcome measure of mental wellbeing was not included.

4. No evaluations were found of community interventions to improve the physical and social environment (for example, street lighting) that were specifically aimed at older people. No evaluations were found of the impact of access to community facilities and services (such as benefits advice or educational and volunteering opportunities) on the mental wellbeing of older people.

5. No evaluations were found that compared the effectiveness of different practitioners working in different settings to deliver interventions (for example, few studies compared the effectiveness of trained health promotion specialists with community practitioners or specialist exercise personnel with fitness instructors, or compared delivery in private sector residential homes with day-care centres based in hospitals.)

6. There was little or no evaluation of the specific component of an intervention that would ensure continued effectiveness (for example, disaggregating the effect of social interactions from physical exercise).

7. Generally, evaluations did not report on factors which make particular at-risk groups vulnerable (for example, black and minority ethnic groups, older people in communal or private residential settings, those who live alone, who are homeless, who live in rural settings or who have language or learning difficulties).

8. There was little or no evidence on the characteristics of the provider of an effective intervention (for example, whether effectiveness of interventions depends on the status or characteristics of those delivering the intervention), on the involvement of older people in their design and delivery, or on the involvement of immediate family members and/or carers.

9. There was a lack of long-term evidence for effectiveness and cost effectiveness. In many cases better quality research is required before the wider applicability of the interventions can be determined. There was little research on cost effectiveness for any of the programmes identified in the effectiveness review.

10. There was a lack of evidence of the relationship between standard measures of emotional and social wellbeing and those used to measure QALYs.

Appendix E: supporting documents

Supporting documents are available from the NICE website http://guidance.nice.org.uk/page.aspx?o=370746:

- Review of effectiveness and cost effectiveness: Public health interventions to promote mental well-being in people aged 65 and over: systematic review of effectiveness and cost-effectiveness

For information on how NICE public health guidance is developed, see:

- 'Methods for development of NICE public health guidance' available from: www.nice.org.uk/phmethods
- 'The public health guidance development process: an overview for stakeholders including public health practitioners, policy makers and the public' available from: www.nice.org.uk/phprocess