
Improving the physical health of adults with severe mental illness: essential actions

A report of the Academy of Medical Royal Colleges
and the Royal Colleges of General Practitioners, Nursing,
Pathologists, Psychiatrists, Physicians, the Royal
Pharmaceutical Society and Public Health England

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Foreword

As President of the Academy of Medical Royal Colleges, and immediate past-President of the Royal College of Psychiatrists, I greatly welcome the publication of this report.

Its origins lie in *Whole-Person Care: From Rhetoric to Reality (Achieving Parity Between Mental and Physical Health)*, published by the Royal College of Psychiatrists in 2013. The report explored the disparities between mental and physical healthcare and made wide-ranging recommendations for change in this area.

One of the starkest facts we must all face is that people with severe mental illness die on average 15–20 years earlier than other people in our communities. Some have rightly described these as ‘stolen years’. Yet the majority of these premature deaths are avoidable, if people receive the right care, in the right place, and at the right time.

In 2014, a joint Working Group was formed to consider issues associated with the physical healthcare of people with severe mental illness, led by the Royal College of Psychiatrists and Royal College of Pathologists and including representatives from the Royal College of Physicians, Royal College of General Practitioners, Royal College of Nursing and Royal Pharmaceutical Society. This core group, later joined by Public Health England, and with invited contributions from experts in other fields of healthcare, has examined these issues in depth, to make the practically focused recommendations contained in this report.

I give particular thanks to Dr Archie Prentice, immediate past-President of the Royal College of Pathologists, for identifying the need for this work and his role in bringing it to fruition, Professor John Wass of the Royal College of Physicians, Dr Alan Cohen of the Royal College of General Practitioners and Dr Irene Cormac of the Royal College of Psychiatrists for the commitment and time they have given to the work and to producing this report. My thanks go also to Ms Lucy Thorpe, Mr Greg Smith and Ms Helen Phillips in the Policy Unit of the Royal College of Psychiatrists for their contributions and support.

The Academy of Medical Royal Colleges will play its part in promoting and supporting these recommendations, and I urge the organisations and professionals to whom they are addressed to do the same.

Professor Dame Sue Bailey

President of the Academy of Medical Royal Colleges

Preface

My Chief Medical Officer report in 2013 on mental healthcare priorities highlighted, among many other things, the barriers between physical and mental healthcare and how these can detract from satisfactory healthcare delivery, particularly for patients with severe mental illness.

There remain barriers in training, healthcare delivery and research. Furthermore, there are major differences in the life expectancy of people with severe mental illness. These differences must be addressed urgently.

This report highlights these differences and sets out clear recommendations for action. It recommends establishing an expert group to set priorities and national standards, improve training standards and promote research in this important area.

There are many other important recommendations, not least that there should be the same level of physical healthcare available to people with severe mental illness as is available to members of the general population. This will be helped by activity driven by the *Five Year Forward View for Mental Health* recommendation for improvement in this area, and should be ensured through inspection by the Care Quality Commission.

I welcome this report. The road to hell is paved with good intentions that are not realised. It is now up to NHS England and the Academy of Medical Royal Colleges to ensure that the changes they suggest do occur and that the serious problems with physical illness in patients with severe mental illness are rectified.

Professor Dame Sally C Davies
Chief Medical Officer, FRS, FMedSci

Overview

Background

The physical health of people with severe mental illness (SMI) is significantly worse than the health of the general population.

People with SMI:

- have a life expectancy that is shortened by 10–20 years (Davies, 2013)
- have higher rates of physical ill-health than the general population
- have higher rates of health-risk behaviours, including obesity and tobacco smoking (approximately twice as high than the general population) (Davies, 2013)
- are likely to have a long-term physical condition (Naylor *et al*, 2012).

This report recommends practical ways to improve physical healthcare services for people with SMI. There is no room for complacency and it is crucial to take this opportunity to make a difference now.

Definition of severe mental illness (SMI)

‘Severe mental illness’ is a frequently used phrase, but is imprecise in its nature. It is generally accepted to have three elements.

- Diagnosis: a diagnosis of schizophrenia, bipolar disorder, or other psychotic disorder is usually implied.
- Disability: the disorder causes significant disability.
- Duration: the disorder has lasted for a significant duration, usually at least 2 years.

There are many documents and articles about SMI, including a useful summary by the Royal College of Psychiatrists (2015).

Working Group for Improving the Physical Health of People with SMI

In 2014, the Working Group for Improving the Physical Health of People with SMI was formed by the Academy of Medical Royal Colleges, made up of representatives from Royal College of General Practitioners, Royal College of Nursing, Royal College of Pathologists, Royal College of Physicians, Royal College of Psychiatrists, Royal Pharmaceutical Society, and Public Health England.

The aims of the Working Group were to recommend ways to:

- improve the physical health and healthcare of adults of working age with SMI, so that their life expectancy is the same as adults without SMI
- reduce the rate of ill health experienced by adults with SMI during their lifetime, so that their rate of physical co-morbidity is no greater than for adults without SMI (Royal College of Psychiatrists, 2013).

It has done this by:

- developing strategies for disease prevention, improving compliance with national standards for physical healthcare, and improving the clinical skills and knowledge of staff who provide physical healthcare for people with SMI
- creating links across medicine and the healthcare professions to improve the standard and quality of services, by making recommendations for good practice, and by sharing resources for teaching, training and examining.

This report applies to adults between 18 and 65 years of age, whether they are living in the community or are inpatients in mental healthcare units. Although this report does not address the physical health of children, young people and older adults with mental conditions, or those with intellectual disabilities, some of the principles of this report may be more widely applicable to others, including across other jurisdictions of the UK.

Summary of recommendations

1. National steering group

- 1.1 A new national steering group should be formed to lead and link key stakeholders with experts from the healthcare professions to enable key areas of physical health to be addressed and monitored at a national level.

2. Royal Colleges and Societies

- 2.1 The Royal Colleges of General Practitioners, Pathologists, Physicians, Psychiatrists and Nursing and the Royal Pharmaceutical Society should work with the recommended new national steering group to:
 - assist with the implementation of national standards for improving the physical healthcare of people with SMI
 - set standards for training of their members so that the standards set by national standard setting bodies can be implemented
 - advocate for the reduction in disparity of physical health outcomes for people with SMI.
- 2.2 Each College and Society should be encouraged to appoint a lead clinician to coordinate the above activities and work with the national steering group.

3. Regulatory bodies and inspectorates

- 3.1 Regulatory bodies for the healthcare professions and inspectorate of health services should align their objectives with those of the national steering group, and the Royal Colleges and Societies in relation to the priorities for physical healthcare improvements.
- 3.2 Regulatory bodies and the inspectorate should ensure that, in mental healthcare settings:
 - standards of physical healthcare for people with SMI are the same as for people in the general population (e.g. access to national standards for health screening, immunisation, physiotherapy, dental care)
 - inspection criteria are based on national standards for physical healthcare, working in liaison with the national steering

group and other national bodies (e.g. Royal Colleges, National Institute of Care and Excellence (NICE), Scottish Intercollegiate Guidelines Network (SIGN))

- participation in national audits takes place (e.g. National Diabetes Audit, National Audit of Schizophrenia)
- information technology (IT) software for these national audits is embedded in the electronic patient clinical records, as it is in primary-care IT systems
- the same clinical outcomes are achieved as in other fields of medicine (e.g. clinical outcomes for cardiovascular disease and respiratory disease in the Quality and Outcome Framework (QOF)).

4. Commissioners of healthcare services

- 4.1 Commissioners should set clear expectations for the provision of physical health services in mental healthcare settings so that people with SMI are not disadvantaged in their ability to access physical health services compared to the general population.
- 4.2 Commissioners should require mental healthcare services to have a named individual with responsibility for nurturing a culture that will enable continuous quality improvement of physical healthcare services by:
- encouraging direct-care staff to identify areas for improvement in standards of physical healthcare
 - using existing or new resources for continuous service improvement
 - providing training on quality improvement strategies and the tools that can be used to take a multidisciplinary and 'co-production' approach to working with patients and carers to achieve continuous quality improvement
 - providing managerial support to implement quality improvement in clinical practice.

5. Providers of physical healthcare services

- 5.1 Each health service used by people with SMI should:
- develop a physical health strategy that is appropriate for people with SMI that has been approved by the board of the acute hospital, mental health service, general medical practice or GP federation, and undertake to review this strategy annually
 - appoint a lead clinician as a board member with responsibility for the implementation of physical health strategy and the

development of clear measurable outcomes (e.g. adherence to NICE or SIGN guidance)

- provide accessible services for people with SMI as required to meet their needs (this access should be routinely monitored)
- monitor and address the health outcomes of people with SMI, as appropriate.

5.2 Mental health services should:

- undertake regular assessments of the physical health needs of people with SMI
- use effective information technology (IT) systems to improve standards of physical healthcare
- employ medical, nursing, pharmacy and other healthcare staff with the necessary skills and knowledge to oversee and deliver appropriate physical healthcare
- use nationally available data on the mortality of people with SMI in the local area and/or local data to develop a strategy to address the causes of death of people with SMI
- ensure essential training for clinical staff is provided on:
 - recognition and 'first response' to acute physical illness
 - resuscitation
 - management of long-term physical conditions
- ensure effective communication systems about physical health topics are in place for those with SMI and carers
- facilitate collaborative working between patients, carers and health professionals.

5.3 Acute hospital services should:

- ensure liaison psychiatry services are available in acute hospitals to support inpatients with SMI
- Ensure effective communication systems are in place for the transfer of patients between services.

5.4 General medical practice should:

- ensure that NICE or SIGN guidelines, which make evidence-based recommendations for the physical health of people with SMI are included in whatever local quality framework is appropriate for that location
- compliance with guidelines should be monitored and addressed.

6. Information technology

6.1 IT should be used for:

- electronic patient records
- electronic prescribing and medicine administration systems
- information sharing and transfer of clinical information, including rapid access to laboratory test results, discharge summaries, and information about medication and allergies

- assisting with clinical practice (e.g. algorithms for differential diagnoses, prompts for reviews and assessments), as well as information about current health problems, immunisation status and medical history
- helping clinicians to meet agreed physical healthcare standards for SMI (e.g. templates for physical health reviews)
- risk management (e.g. potential risks of drug interactions, known allergies or significant physical conditions)
- facilitating training in clinical skills and procedures
- providing information for patients and carers
- enabling data collection for audit.

7. Physical healthcare

7.1 Mental healthcare providers should ensure that:

- quality improvement techniques are used to implement agreed standards of physical healthcare on a continuous basis
- basic medical equipment is provided
- the National Early Warning Score (NEWS) system is available and used in mental healthcare settings by staff trained in its use to enable the early recognition of acute illness and appropriate action to be taken in a timely way
- communication systems are used for handover and medical emergencies, such as the SBAR system (Situation, Background, Assessment, Recommendation)
- a carers' forum or organisation is supported, formed or liaised with in order to facilitate information sharing and communication about physical health matters.

7.2 Acute service providers should:

- arrange for a liaison psychiatry service to be provided so people with SMI can access an appropriate level of psychiatric care during their hospital stay (Joint Commissioning Panel for Mental Health, 2013)
- use standards for commissioning liaison psychiatry services for acute hospitals that have been prepared by the Joint Commissioning Panel for Mental Health (Joint Commissioning Panel for Mental Health, 2013).

8. Training of healthcare professionals

8.1 National bodies that regulate healthcare professionals should take heed of the poor physical health of people with SMI and review the training requirements of their healthcare profession/s to

ensure their training standards and curricula will prepare their students and trainees to meet the roles expected of them, in any or all of the physical healthcare activities listed in Recommendation 8.2.

8.2 Physical healthcare activities that healthcare professionals should be trained in:

- **Assessment of physical health:** assess the physical health of patients on admission and at appropriate intervals thereafter, including the assessment for the presence or absence of illness, injury or disability, and any of the following – receiving a medical history, making a functional enquiry, undertaking a physical examination, arranging blood tests and other investigations, as necessary.
- **Investigation for underlying physical causes:** investigate for the presence of an underlying physical cause for the mental condition of the patient, and when appropriate, form a differential diagnosis, as a basis for further investigation or referral to other health professionals.
- **Monitoring of physical health:** monitor the physical health of the patient on the basis of clinical need and national standards of physical healthcare.
- **Recognition of acute illness (the ‘deteriorating patient’):** this includes measuring physiological parameters, using NEWS (National Early Warning Score) system, making the ‘first response’ to an acute illness, and using effective communication and resuscitation techniques.
- **Out-of-hours medical care:** where inpatient services require out-of-hours medical care to be delivered by a psychiatrist, they and certain members of the clinical team need the skills and competencies to make a diagnosis (or provisional diagnosis), to treat and/or refer the patient to acute services, while also recognising that the patient may have co-morbidities and be vulnerable for reasons relating to their mental health.
- **Management of long-term conditions:** monitor and provide treatment for long-term conditions in collaboration with specialists.
- **Medicines:** be aware of all medicines prescribed for the patient. Be able to work closely with the pharmacist to optimise the use of the medicines and be able to monitor the physical side-effects of psychotropic and other medicines prescribed for physical and mental conditions.
- **Referral to others:** psychiatrists and other healthcare professionals should know ‘when and how’ to refer to other health professionals. In particular, be aware of clinical ‘red flag’ symptoms and signs that should prompt referral to specialists.
- **Health promotion and disease prevention:** be aware of health promotion and disease prevention strategies, including physical activity, diet, oral health, sexual health and smoking

cessation, prevention of falls, immunisation and infection control measures. Be aware of screening tools for the assessment of physical health risks (e.g. venous thromboembolism risks, tissue viability, nutritional risk factors and cardiovascular risks).

- **Specific health risks:** be aware of specific risks in the patient population (e.g. homeless people and refugees).
- **Rehabilitation of patients:** facilitate recovery from physical illness or injury for instance by liaison with specialists who provide the services needed by the patient for physical healthcare.

8.3 For trainees in psychiatry, it is recommended that:

- the Royal College of Psychiatrists should engage with the Royal College of Physicians and other Royal Colleges to support the training and examination of key topics (e.g. recognition of acute physical illness, resuscitation, management of long-term conditions)
- curricula and examinations should include key areas that relate to the physical healthcare of people with SMI.

8.4 For nurses, it is recommended that, in their review of pre-registration nurse training, the Nursing and Midwifery Council:

- review the recommendations above and the activities relating to the physical healthcare of people with SMI in their development of new competencies and skills for the pre-registration training of mental health nurses
- review the 2016 recommendations for training of mental health nurses (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016); in addition to the clinical competencies identified in this report, mental health nurses and practice nurses in primary care may require training to understand their roles and responsibilities in regard to the physical health of people with SMI.

8.5 For pharmacists, it is recommended that they should retain the competencies outlined in the Royal Pharmaceutical Society's *RPS Foundation Pharmacy Framework* and *The RPS Advanced Pharmacy Framework (APF)* (Royal Pharmaceutical Society, 2013, 2014).

Introduction

Most people with mental disorders and conditions receive mental and physical healthcare in the community, under the care of their GP, as do members of the general public.

People with SMI can live in various settings, including their own homes, supported accommodation and inpatient psychiatric facilities. Inpatient facilities include short, medium or long-stay units with security levels that range from open through to low, medium and high security.

Population health

The health of the general population of the UK has improved significantly over the past 50 years, with most people living longer and healthier lives (Office for National Statistics, 2015).

For people living with SMI, however, there has not been the same improvement (Dembling *et al*, 1999). They are over three times more likely to have a physical health problem and may die 10–20 years earlier than others in the general population.

People with mental illness also experience more risks to remaining physically well. Smoking rates are approximately twice as high; alcohol misuse and obesity rates are about 50% higher than for those in the general population

Determinants of physical and mental health include a range of individual and environmental factors for example genetic predisposition to illness and exposure to health risks, as well as social factors such as poverty, unemployment and poor housing (Shah *et al*, 2011; World Health Organization & Calouste Gulbenkian Foundation, 2014; World Health Organization, 2016).

However, it is beyond the scope of this report to tackle the wider determinants of health, and this report will focus solely on physical health interventions for people with SMI.

Factors that contribute to poor physical health in SMI

Preventable or modifiable health risks

Although suicide contributes to excess mortality rates, particularly in younger people, the majority of premature deaths in people with SMI are caused by potentially modifiable health-risk behaviours, such as

tobacco smoking, alcohol and addictions, lack of exercise and obesity and social factors such as poverty, homelessness, and unemployment.

Effects of the mental illness

This may have a bearing on the patient's capacity or willingness to seek appropriate healthcare intervention. The manner in which a health problem is assessed or an intervention is offered may at times inadvertently discriminate against people with SMI. Medicines prescribed for a mental condition may contribute further. For example, some antipsychotic medicines may cause increased appetite, lipid abnormalities and glucose dysregulation.

Variations in standards of physical healthcare

In the UK, the first guiding principle for the NHS is to 'provide a comprehensive service, available to all [...] and] to promote equality through the services it provides' (Department of Health, 2015; p3). Yet there are significant variations in the delivery of healthcare services across the UK.

Although pathology tests are only one aspect of the delivery of physical healthcare services for people with SMI, data from the Atlas of Variation for Diagnostic Services (Public Health England, 2013) for the general population highlights significant geographical inequalities in ordering of these tests in primary care services in the UK.

For people with SMI, the number of tests ordered by GPs of plasma lithium levels varies 7 fold (per 1000 practice population) between general practices across the UK (though this may reflect differing prescribing rates) (Public Health England, 2013). These wide variations in the uptake of pathology services in the general population and in those taking lithium in primary care settings highlight the need to address issues of variations in standards of healthcare and to address this for people with SMI across the UK. Analysis of data from primary care in the QOF suggests that in many clinical commissioning group areas, people with SMI may be less likely to receive the same screening, tests and interventions as the general population (RSA Open Public Services Network, 2015).

Roles and responsibilities

Standards of physical healthcare that apply to people in the general population, including NICE and SIGN guidance, should apply to people with SMI.

A shared approach

The identification and management of a physical health disorder (or concern about a potential physical health disorder) should be a

shared responsibility of the healthcare professionals, the patient and their carers. A shared approach to care ensures that concerns can be appropriately addressed and physical health needs met.

In the community

The physical healthcare of people with SMI who are living in the community should usually be provided by their general practitioner. There will be some cases, where this may not be possible, when it will be the responsibility of the psychiatrist to ensure that appropriate physical healthcare is delivered by a registered medical practitioner with the requisite knowledge and skills.

Inpatient care

Multidisciplinary teams in mental healthcare services require a range of skills and knowledge to be able to deliver an appropriate level of physical healthcare. These include the skills and knowledge to provide physical healthcare monitoring, to recognise and make the first response to acute illness, and to work with healthcare professionals from various specialities.

When mental healthcare services are unable to meet the physical health needs of their patient population in-house, physical healthcare services may need to be commissioned for example to provide primary care services, dental care, physiotherapy, dietetics and speech and language therapy.

Parity

The Royal College of Psychiatrists' Report on 'Whole person care: From rhetoric to reality: Achieving parity between physical and mental Health' (2013) included the following key ambitions for improving the physical health of people with mental health problems:

- 'People with mental health problems will have parity of life expectancy and no higher rates of physical illness than those without these problems.'
- 'People with mental health problems will receive the same quality of physical healthcare as those without a mental health problem.'
- 'People with mental health problems will express the same levels of satisfaction with their health and social care services as people with physical health conditions, including experiencing the same levels of dignity and respect from health and social-care staff.'
- 'People with mental health problems will receive appropriate intervention and support to address the factors affecting their much higher rates of health risk behaviour.'
- 'Commissioners will understand that physical and mental health are inextricably linked, and that it is not possible to treat or support one without affecting the other.'

These aims need to be converted into action to improve the physical health of people with SMI with the support of the Medical Royal Colleges and other Professional Bodies.

For people with SMI

- National Bodies have a legal duty to address health inequalities, including the poor physical health outcomes of people with SMI.
- Systems of continuous quality improvement must be routinely used to improve standards of physical healthcare for people with SMI.
- Improvements should be made in partnership working at the interfaces between primary care, secondary care, and mental healthcare services to improve the delivery of essential reviews and monitoring.
- There should be a reduction in waste and prevention of harm, by avoiding duplication of health-related professional actions, and by reducing unnecessary interventions, in-line with the Academy of Medical Royal Colleges' policy 'Choosing wisely' (Malhotra *et al*, 2015).

Policy context

Over the past 5 years, there has been a greater focus on the nation's mental health with the twin ambitions that more people with mental health problems will have good physical health and that fewer people with mental health problems will die prematurely. Key documents and reports are listed in Box 1.

In 2013, the Chief Medical Officer's Report in England (Davies, 2013) noted that 60% of the excess mortality in people with mental illness was avoidable. The report recommended taking a 'multi-pronged' approach to address the causes of premature mortality.

In February 2016, the *Five Year Forward View For Mental Health* report recommended reducing the physical health inequalities experienced by people with SMI by improving access to health screening and disease prevention.

In March 2016, the King's Fund report (Naylor *et al*, 2016) called for integration in mental and physical healthcare, and stated the need for changes across the healthcare system to achieve quality improvement and control of costs, for ethical and economic reasons.

In April 2016, the *NHS Outcomes Framework for 2016-17* stated that reducing premature mortality in people with mental illness should include reducing 'the excess under 75 mortality rate in adults with serious mental illness' (Department of Health, 2016).

In July 2016, NHS England published its implementation plan for the Five Year Forward View for Mental Health. This cited evidence that in 2013/14 people with SMI:

Box 1. Key policy documents

- *No Health Without Mental Health* (HM Government, 2011)
- *No Health without Mental Health Implementation Framework* (Centre for Mental Health et al, 2012)
- *Annual Report of the Chief Medical Officer. Public Mental Health Priorities: Investing in the Evidence* (Davies, 2013)
- *Closing the Gap: Priorities for Essential Change in Mental Health* (Social Care, Local Government and Care Partnership Directorate, 2014)
- *Living Well for Longer* (Department of Health, 2014)
- *Five Year Forward View* (NHS England, 2014b)
- *Five Year Forward View for Mental Health* (Mental Health Taskforce, 2016)
- *NHS Outcomes Framework 2016 to 2017 At-a-Glance* (Department of Health, 2016)
- *Guidance for Commissioners of Financially, Environmentally and Socially Sustainable Mental Health Services (Future Proofing Services)* (Joint Commissioning Panel for Mental Health, 2015)
- *Implementing the Five Year Forward View for Mental Health* (NHS England, 2016)
- *Bringing Together Physical and Mental Health: A New Frontier for Integrated Care* (Naylor et al, 2016)
- *Improving the Physical Health of People with Mental Conditions: Action for Mental Health Nurses* (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016)

‘had almost seven times more emergency inpatient admissions, and three times the ration of Accident and Emergency attendances, of which half this activity was unrelated to mental health need and was instead driven by physical health care needs’ (NHS England, 2016: pp. 26–27).

NHS England has committed by 2020/21 to achieving:

‘a reduction in premature mortality of people living with severe mental illness (SMI); and 280,000 more people having their physical health needs met by increasing early detection and expanding access to evidence-based physical care assessment and intervention each year’ (p. 20)

The recommendations of this report will be relevant to aspects of the work on developing new models of care, also known as the Vanguards Programme (NHS England, 2015c).

Time for action

It has been known for decades that people with SMI have poor physical health, compared with the general population. Action must be taken at all organizational levels in healthcare, while also recognising the challenges that services and healthcare staff face (Davies, 2013). It is crucial to develop collaborative and systematic approaches to ultimately make a difference.

Part 1

Recommendations for action

These recommendations for essential actions are aimed at the organisations involved in health services in the UK and take an integrated approach towards achieving lasting change.

1. National steering group

The increased incidence of premature death in those with SMI can be partly explained by an increased prevalence of physical illness. These illnesses can be affected by variations in access to, and quality and uptake of, physical healthcare services (Maj, 2009). Leadership at a national level is essential to improve the standard and quality of healthcare provided to people with SMI.

Recommendation 1.1

A new national steering group should be formed to lead and link key stakeholders with experts from the healthcare professions to enable key areas of physical health to be addressed and monitored at a national level.

Proposed terms of reference for the national steering group

- The group should set priorities and recommend which national standards (for example NICE or SIGN guidance) should be implemented to improve physical healthcare services for people with SMI. The national steering group should also recommend which standards should be considered by the regulatory bodies for assessing physical healthcare services for people with SMI.
- Review of compliance with standards as inspected by the regulatory bodies (e.g. Care Quality Commission).
- Review data on the mortality rates of people with SMI and assess whether these data are being used by service providers to monitor and assess the level of need and physical health inequalities in their patient population.
- Challenge attitudes towards improving staff training. Liaise with regulatory bodies and set agreed standards for staff training and education to enable staff to fulfil the physical healthcare needs for people with SMI.
- Promoting research and service evaluations in the physical health of people with SMI.
- Assist with the implementation of the recommendations in the *Five Year Forward View for Mental Health* (Mental Health Taskforce, 2016).

2. Royal Colleges and Societies

The Royal Colleges and Societies have the professional expertise to make significant contributions to improving the physical health of people with SMI.

Recommendation 2.1

The Royal Colleges of General Practitioners, Pathologists, Physicians, Psychiatrists and Nursing and the Royal Pharmaceutical Society should work with the recommended new national steering group to:

- assist with the implementation of national standards for improving the physical healthcare of people with SMI
- set standards for training of their members so that the standards set by national standard setting bodies can be implemented
- advocate for the reduction in disparity of physical health outcomes for people with SMI.

Recommendation 2.2

Each College and Society should be encouraged to appoint a lead clinician to coordinate the above activities and work with the national steering group.

Standards of clinical practice for each professional group

- Identify and agree standards of care that are based on national standards (e.g. NICE and Public Health England guidance) or guidelines from standard-setting bodies (e.g. SIGN).
- Support the implementation of relevant standards for the physical healthcare of people with SMI who are living in the community or in inpatient mental healthcare units, taking into account the characteristics of that service with regard to length of stay, level of security required and factors such as patients' physical comorbidities.
- Measure and compare rates of compliance with the agreed standards. Determine how to measure outcomes (e.g. with the use of IT).
- Work in collaboration with people with lived experience of SMI to improve standards of physical healthcare.
- Work in partnership across medical specialities in the following areas:
 - Review and improve the relevance of the curricula for undergraduate and postgraduate training in mental healthcare specialities to include the appropriate knowledge, skills and competencies in physical healthcare.

- Training resources should be shared and developed across medical specialities and healthcare professions.
- Examine on physical health topics relevant to the physical health needs of people with SMI.
- In appraisals, include physical health topics when relevant, as above.

3. Regulatory bodies and inspectorate

Healthcare professionals are regulated by national bodies that set training requirements for undergraduates and standards for professional practice. They include the General Medical Council, Nursing and Midwifery Council and Health and Care Professions Council.

The inspectorate of healthcare services in England is the Care Quality Commission.

The Working Group has liaised with the Mental Health Lead of the Care Quality Commission regarding the development of inspection criteria that relate to key aspects of physical healthcare in mental health and primary care settings. It is anticipated that the Care Quality Commission will use criteria from national audit tools in creating their inspection criteria.

Recommendation 3.1

Regulatory bodies for the healthcare professions and inspectorate should align their objectives with those of the national steering group and of the Royal Colleges and Societies in relation to the priorities for physical healthcare improvements.

Recommendation 3.2

Regulatory bodies and the inspectorate should ensure that, in mental healthcare settings:

- standards of physical healthcare for people with SMI are the same as for people in the general population (e.g. access to national standards for health screening, immunisation, physiotherapy, dental care)
- inspection criteria are based on national standards for physical healthcare, working in liaison with the national steering group and other national bodies (e.g. Royal Colleges, National Institute of Care and Excellence (NICE), Scottish Intercollegiate Guidelines Network (SIGN))
- participation in national audits takes place (e.g. National Diabetes Audit, National Audit of Schizophrenia)
- IT software for these national audits is embedded in the electronic patient clinical records, as it is in primary-care IT systems
- the same clinical outcomes are achieved as in other fields of medicine (e.g. clinical outcomes for cardiovascular disease and respiratory disease in the Quality and Outcome Framework (QOF)).

Standards for the physical healthcare of people with SMI in inpatient psychiatric units are outlined in Royal College of Psychiatrists (2009a).

4. Commissioners of healthcare services

Recommendation 4.1

Commissioners should set clear expectations for the provision of physical health services in mental healthcare settings so that people with SMI are not disadvantaged in their ability to access physical health services compared to the general population.

Recommendation 4.2

Commissioners should require mental healthcare services to have a named individual with responsibility for nurturing a culture that will enable continuous quality improvement of physical healthcare services by:

- encouraging direct-care staff to identify areas for improvement in standards of physical healthcare
- using existing or new resources for continuous service improvement
- providing training on quality improvement strategies and the tools that can be used to take a multidisciplinary and 'co-production' approach to working with patients and carers to achieve continuous quality improvement
- providing managerial support to implement quality improvement in clinical practice.

Mental health services commissioners in England should:

- Commission comprehensive, integrated physical healthcare services that meet standards set by NICE (or SIGN).
- Use appropriate levers, such as financial incentives (e.g. Commissioning for Quality and Innovation (CQUIN) incentive schemes), to ensure that physical healthcare services deliver outcomes to people with SMI equivalent to the outcomes delivered to the general population.
- Commission liaison psychiatry services in acute services to enable the early identification of people with SMI, who might be disadvantaged in accessing physical healthcare (Joint Commissioning Panel for Mental Health, 2013).
- Raise awareness of and make provision for reasonable adjustments in physical healthcare services for people with SMI.
- Facilitate the primary/secondary care interface for people with SMI between mental healthcare services and other healthcare providers in the community.
- Assess and measure the physical health needs of the patient population with SMI in mental healthcare settings to provide

evidence that patients' physical health needs can be met by appropriate physical healthcare services.

- Ensure the same quality measures apply to inpatient settings as to primary care. Although the process for the financial incentives may be different in primary and secondary care, the health outcomes should be the same.
- When appropriate, employ a liaison physician with relevant expertise in the physical health of people with SMI, and other health professionals with physical healthcare skills and knowledge.
- Ensure agreements and resources are in place to enable a comprehensive programme of monitoring for people with SMI who are prescribed psychotropic medication.

General medical practice and acute general hospital services

- When commissioning services, raise awareness of and make provision for reasonable adjustments to be made in the provision of physical healthcare services for people with SMI.

5. Providers of healthcare services

Providers of health care include acute hospital providers, mental health NHS trusts, general medical practice, private healthcare and charitable organisations.

Recommendation 5.1

Each health service used by people with SMI should:

- develop a physical health strategy that is appropriate for people with SMI that has been approved by the board of the acute hospital, mental health service, general medical practice or GP federation, and undertake to review this strategy annually
- appoint a board member as lead clinician with responsibility for the implementation of physical health strategy and the development of clear measurable outcomes (e.g. adherence to NICE or SIGN guidance)
- provide accessible services for people with SMI as required to meet their needs (this access should be routinely monitored)
- monitor and address the health outcomes of people with SMI, as appropriate.

Recommendation 5.2

Mental health services should:

- undertake regular assessments of the physical health needs of people with SMI
- use effective information technology (IT) systems to improve standards of physical healthcare
- employ medical, nursing, pharmacy and other healthcare staff with the necessary skills and knowledge to oversee and deliver appropriate physical healthcare
- use nationally available data on the mortality of people with SMI in the local area and/or local data to develop a strategy to address the causes of death of people with SMI
- ensure essential training for clinical staff is provided on:
 - recognition and 'first response' to acute physical illness
 - resuscitation
 - management of long-term physical conditions
- ensure effective communication systems about physical health topics are in place for those with SMI and carers
- facilitate collaborative working between patients, carers and health professionals.

Recommendation 5.3

Acute hospital services should:

- ensure liaison psychiatry services are available in acute hospitals to support inpatients with SMI
- ensure effective communication systems are in place for the transfer of patients between services.

Recommendation 5.4

General medical practice should:

- ensure that NICE or SIGN guidelines, which make evidence-based recommendations for the physical health of people with SMI are included in whatever local quality framework is appropriate for that location
- compliance with guidelines should be monitored and addressed.

Example of good practice

The Lester tool (Shiers *et al*, 2014) has been designed to use in mental healthcare settings to improve the cardio-metabolic health of people with mental illness. It is based on NICE guidelines.

6. Information technology

In mental healthcare settings, IT systems should be developed with the appropriate information and capabilities to facilitate effective delivery of physical healthcare.

Recommendation 6.1

IT should be used for:

- electronic patient records
- electronic prescribing and medicine administration systems
- information sharing and transfer of clinical information, including rapid access to laboratory test results, discharge summaries, and information about medication and allergies
- assisting with clinical practice (e.g. algorithms for differential diagnoses, prompts for reviews and assessments), as well as information about current health problems, immunisation status and medical history
- helping clinicians to meet agreed physical healthcare standards for SMI (e.g. templates for physical health reviews)
- risk management (e.g. potential risks of drug interactions, known allergies or significant physical conditions)
- facilitating training in clinical skills and procedures
- providing information for patients and carers
- enabling data to be collected for audit.

7. Physical healthcare

The physical healthcare of people with SMI is delivered in the community, mental health settings, in acute hospitals and in primary care.

Recommendation 7.1

Mental healthcare providers should ensure that:

- quality improvement techniques are used to implement agreed standards of physical healthcare on a continuous basis
- basic medical equipment is provided
- the National Early Warning Score (NEWS) system is available and used in mental healthcare settings by staff trained in its use to enable the early recognition of acute illness and appropriate action to be taken in a timely way
- communication systems are used for handover and medical emergencies, such as the SBAR system (Situation, Background, Assessment, Recommendation)
- a carers' forum or organisation is supported, formed or liaised with in order to facilitate information sharing and communication about physical health matters.

Regular checks should be made on the basic medical equipment (Appendix 3) on inpatient wards to ensure that it is all present and in working order.

A carers' forum or organisation should be supported or liaised with to facilitate information sharing and communication about physical health matters. For example to share information about physical health topics that are relevant to patients including the side-effects of medication, disease prevention, health promotion and quality improvement of healthcare services.

Communication and handover and systems should be used routinely to enable staff to communicate effectively about the physical health (and mental health status) of people with SMI. For example the SBAR system (Situation, Background, Assessment, Recommendation) can be used (www.saferhealthcare.com/sbar).

Recommendation 7.2

Acute hospital service providers should:

- arrange for a liaison psychiatry service to be provided so people with SMI can access an appropriate level of psychiatric care during their hospital stay (Joint Commissioning Panel for Mental Health, 2013)
- use standards for commissioning liaison psychiatry Services for Acute Hospitals that have been prepared by the Joint Commissioning Panel for Mental Health (Joint Commissioning Panel for Mental Health, 2013).

Example of good practice

A cost-effective liaison psychiatry service that has been shown to reduce length-of-stay in Acute Hospitals is the Rapid Assessment Interface Discharge (RAID) liaison psychiatry system, which takes a multidisciplinary approach to reducing length-of-stay. Information about the National RAID network is available online (www.raidnetwork.org.uk).

8. Training of healthcare professionals

National standard-setting bodies for the training and licensing of healthcare professionals include the General Medical Council, Health and Care Professions Council and Nursing and Midwifery Council. Educational bodies such as the Deaneries have responsibility for the delivery of training and for the monitoring of compliance with training requirements. Most, but not all, service providers are approved for training undergraduates and/or postgraduates.

Recommendation 8.1

National bodies that regulate healthcare professionals should take heed of the poor physical health of people with SMI and review the training requirements of their healthcare profession/s to ensure their training standards and curricula will prepare their students and trainees to meet the roles expected of them, in any or all of the physical healthcare activities listed in Recommendation 8.2.

Recommendation 8.2

Physical healthcare activities that healthcare professionals should be trained in:

- Assessment of physical health: assess the physical health of patients on admission and at appropriate intervals thereafter, including the assessment for the presence or absence of illness, injury or disability, and including any of the following – receiving a medical history, making a functional enquiry, undertaking a physical examination, arranging blood tests and other investigations, as necessary.
- Investigation for underlying physical causes: investigate for the presence of an underlying physical cause for the mental condition of the patient, and when appropriate, form a differential diagnosis, as a basis for further investigation or referral to other health professionals.
- Monitoring of physical health: monitor the physical health of the patient, on the basis of clinical need and national standards of physical healthcare.
- Recognition of acute illness (the ‘deteriorating patient’): this includes measuring physiological parameters, using NEWS (National Early Warning Score) system, making the ‘first response’ to an acute illness, using effective communication and resuscitation techniques.

recommendation continues on next page ...

- Out-of-hours medical care: where inpatient services require out-of-hours medical care to be delivered by a psychiatrist, they and certain members of the clinical team need the skills and competencies to make a diagnosis (or provisional diagnosis), to treat and/or refer the patient to acute services, while also recognising that the patient may have co-morbidities and be vulnerable for reasons relating to their mental health.
- Management of long-term conditions: monitor and provide treatment for long-term conditions in collaboration with specialists. In particular, be aware of clinical 'red flag' symptoms and signs that should prompt referral to specialists.
- Medicines: be aware of all medicines prescribed for the patient. Be able to work closely with the pharmacist to optimise the use of the medicines and be able to monitor the physical side-effects of psychotropic and other medicines prescribed for physical and mental conditions.
- Referral to others: psychiatrists and other healthcare professionals should know 'when and how' to refer to other health professionals.
- Health promotion and disease prevention: be aware of health promotion and disease prevention strategies, including physical activity, diet, oral health, sexual health and smoking cessation, prevention of falls, immunisation and infection control measures. Be aware of screening tools for the assessment of physical health risks (e.g. venous thromboembolism risks, tissue viability, nutritional risk factors and cardiovascular risks).
- Specific health risks: be aware of specific risks in the patient population (e.g. homeless people and refugees).
- Rehabilitation of patients: facilitate recovery from physical illness or injury for instance by liaison with specialists who provide the services needed by the patient for physical healthcare.

Example of progress

In 2015, the Presidents of the Royal College of Physicians and the Royal College of Psychiatrists agreed to share training resources and to co-ordinate their curricula and examinations for trainees.

Training for psychiatrists

The Royal College of Psychiatrists sets the training requirements and postgraduate examinations for College membership. *Good Psychiatric Practice*, from the Royal College of Psychiatrists (2009b), states:

A psychiatrist must [...] have knowledge of [...] the impact of alcohol and substance misuse on physical and mental health [...] and] be competent in determining the necessary physical examination and investigations required for a thorough assessment.

This reflects part of the roles and responsibilities that psychiatrists have for people with SMI under their care.

Roles and responsibilities of a psychiatrist

For inpatients, the psychiatrist has to perform (or delegate to others appropriately) the core activities listed previously. It is recommended that all psychiatrists providing clinical care to patients should obtain and retain skills and competencies in the activities outlined below.

- Identification of physical causes of psychiatric symptoms/signs, including the competencies needed to receive a medical history, examine the patient, order and review routine investigations.
- Investigation for the presence of an underlying physical cause for the mental condition of the patient form a differential diagnosis, which includes physical causes of mental symptoms, and to be able to recognise when to refer to another colleague or specialist.
- Obtaining a medical history to exclude a physical cause for the patient's mental health problems and the skills need to be able to conduct a functional enquiry.
- Recognising the onset of acute physical illness and making the immediate 'first response'. They should be proficient in the measurement of vital signs, the use of 'patient at risk' scoring systems, such as NEWS, and the use of effective communication systems, including handover systems.
- Safe prescription of medication and the recognition of side-effects of the medications prescribed for their patients, whether or not these medications are prescribed for a physical or mental condition.
- Management of long-term conditions, including monitoring and treatment.
- For patients with a susceptibility to certain physical health conditions e.g. patients with addictions (or certain long-term conditions), the skills and knowledge to recognise factors that may affect the physical health of people with these conditions.
- Disease prevention and health promotion strategies, including: weight management; smoking cessation; and knowledge about physical activity, oral health, immunisation, infection control and treatments for addictions.
- Use of screening tools for physical health risks (e.g. venous thromboembolism risk factors, tissue viability, nutrition risk factors and risk of falls as appropriate to the patient population).
- To have the competencies to meet the physical health needs of the patient population for which they provide care (e.g. refugees).
- To involve other specialists in the rehabilitation of the patient's physical health.

Recommendation 8.3

For trainees in psychiatry, it is recommended that:

- the Royal College of Psychiatrists should engage with the Royal College of Physicians and other Royal Colleges to support the training and examination of key topics (e.g. recognition of acute physical illness, resuscitation, management of long-term conditions)
- curricula and examinations should include key areas that relate to the physical healthcare of people with SMI.

Training for mental health nurses

In the UK, the Nursing and Midwifery Council sets the standards for pre-registration training of general and mental health nurses (Nursing and Midwifery Council, 2010). In January 2016, the Council (2016) announced plans to undertake a 'fundamental review of the skills and competencies that future nurses will be expected to meet for pre-registration'.

In May 2016, NHS England published a guide for mental health nurses on how physical healthcare can be improved (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016).

Recommendation 8.4

It is recommended that, in their review of pre-registration nurse training, the Nursing and Midwifery Council:

- review the recommendations above and the activities relating to the physical healthcare of people with SMI in their development of new competencies and skills for the pre-registration training of mental health nurses
- review the 2016 recommendations for training of mental health nurses (Nursing, Midwifery and Allied Health Professions Policy Unit, 2016); in addition to the clinical competencies identified in this report, mental health nurses and practice nurses in primary care may require training to understand their roles and responsibilities in regard to the physical health of people with SMI.

In primary care, practice nurses have the competencies to prevent and manage long-term conditions. However, they may need more training to increase their confidence and ability to care for people with SMI, because many practice nurses have not been trained in the physical health problems prevalent in people with SMI (Hardy, 2015).

Training for pharmacists

The Royal Pharmaceutical Society (2013, 2014) sets out the competencies needed by pharmacists in their *RPS Foundation Pharmacy Framework* and *The RPS Advanced Pharmacy Framework (APF)*.

Recommendation 8.5

Pharmacists should retain the competencies outlined in the Royal Pharmaceutical Society's *RPS Foundation Pharmacy Framework* and *The RPS Advanced Pharmacy Framework (APF)* (Royal Pharmaceutical Society, 2013, 2014).

Recommendation 8.6

When pharmacists are involved in the clinical care of patients with mental disorders, their competencies should include the following areas of skills and knowledge:

- Recognition of the adverse effects of physical illness and treatments that may result in the emergence of psychiatric symptoms.
- Recognition of physical problems that may complicate or be an adverse effect of medicines used in the management of psychiatric disorders.
- A comprehensive understanding of and ability to interpret relevant pathology and therapeutic monitoring results to guide and supervise the safe use of medicines.
- Management of drug interactions that may compromise co-existing physical or psychiatric drug treatment.
- Medicines reconciliation to ensure accurate and appropriate treatment is maintained when patients move across boundaries of care.
- Optimisation of medicines use in the management of long-term conditions.
- Disease prevention and health promotion strategies, including: weight management, smoking cessation, knowledge about physical activity, oral health, immunisation, infection control and treatments for addictions.
- Utilisation of screening tools for physical health risks (e.g. venous thromboembolism risk factors, tissue viability and risk of falls as appropriate to the patient population).
- Working within multidisciplinary teams to achieve optimisation of medicines.

Recommendation 8.7

It is recommended for pharmacists specialising in the care of patients with SMI that the College of Mental Health Pharmacy reviews its accreditation standards to ensure pharmacists have adequate skills and knowledge of the management of physical conditions.

Part 2

Key areas for service improvements

In this section of the report, key areas are outlined and examples are given about making changes.

Perspectives

A patient's perspective

Physical health issues and schizophrenia

My first admission to a psychiatric hospital was in 1990, when I had been a non-smoker for 2 years. With little to do on the parched and sterile ward, there was a prevalent smoking culture. In those days smoking was unrestricted.

I soon succumbed to my first cigarette in 2 years – and just that one cigarette condemned me to another 10 years of serious nicotine addiction. I will not argue the pros and cons of the current smoking ban in psychiatric hospitals. However, my experience certainly strengthens the argument for some control over smoking.

Weight gain is the most unpopular side-effect of many antipsychotic medications, and this side-effect seems resistant to even the healthiest diet or regular exercise, making weight loss extremely difficult. In 2001, I was taking a low dose of risperidone, which worked wonderfully for my schizophrenia, but it was detrimental to my physical health. I gained 30 kg and frequently had to buy larger clothes.

My weight gain became so serious that my sympathetic consultant psychiatrist changed my medication to quetiapine. At last my weight reduced and my physical health improved; however, my mental health relapsed into the most severe psychosis I had ever experienced, resulting in a hospital admission. These events exemplify the dilemma many patients face: either suffer poor physical health through the side-effects of medication or suffer a further onset of psychosis.

I have now enjoyed 9 years of mental stability and good recovery, and I lead a fairly purposeful, satisfying and hopeful life. I have been in the care of the same consultant psychiatrist for the past 12 years – a period of continuity perhaps exceptional within the NHS. Since 2003, my consultant psychiatrist has prescribed sulpiride, which has been effective for my schizophrenia and has had negligible physical side-effects.

Although research may indicate that people with schizophrenia experience neglect and shortcomings with their physical healthcare, and that healthcare staff may not take their patient's health needs seriously, my own experience of the NHS regarding both my physical and mental healthcare needs is extremely positive.

I am a very grateful and satisfied customer.

A carer's perspective

One size does not fit all

I am writing this as Chair of the National Carers' Forum at Royal College of Psychiatrists, and also from an earlier perspective of working in public services, before having long-term physical health problems personally, and becoming a mental health carer in real life - a 'live it to learn it' journey and experience.

This is my 'public perspective' and support for this pioneering initiative. Many initiatives over many years have come and gone – but now is time for real change. In today's NHS world of forward-looking information, we currently have, to name just a few:

- *Whole-Person Care: From Rhetoric to Reality (Achieving Parity Between Mental and Physical Health)* (Royal College of Psychiatrists, 2013)
- *Five Year Forward View* (NHS England, 2014)
- *The Five Year Forward View for Mental Health* (Mental Health Taskforce, 2016)
- *Improving Acute Inpatient Psychiatric Care for Adults in England* (Commission on Acute Adult Psychiatric Care, 2015)
- *Guidance for Commissioners of Financially, Environmentally and Socially Sustainable Mental Health Services (Future Proofing Services)* (Joint Commissioning Panel for Mental Health, 2015)
- *Implementing Recovery through Organisational Change* (ImROC; www.imroc.org)
- *Co-Production in Social Care: What it is and How to Do it* (Social Care Institute for Excellence, 2015)

Alongside a creaking NHS with many inequalities and cultural difficulties, there are also recruitment and retention difficulties, financial pressures and many other problems to consider. We cannot sustain the current position while ill health and healthcare needs are ever increasing and morale decreasing. Is something missing?

Q. How many patients do you see with long-term mental health issues who are displaying physical health problems?

Q. How can health professionals assist and improve their patients' long-term and short-term health and well-being?

'Parity of esteem' should happen to improve value, quality of services and quality of life for everyone. Sometimes it may not be easy to engage with the public. Over the years I have sat in many NHS meetings looking for answers, and noticed the focus is not on listening to the staff or patient.

Politics, finance, stigma and discrimination can blinker people's thoughts, but remember that the patient sitting with you has knowledge

and experience of illness. The front-line staff are the eyes and ears of the NHS, and they also gain knowledge worth listening to.

We need to develop different ways of working so that we do 'with' patients and not 'to' patients; so that engaging and making decisions together (as in co-production) becomes the norm and we truly achieve person-centred healthcare. Everybody is somebody: what if this person was your relative?

Q. Ask yourself, how would I see 'me and my abilities' if I was that patient?

Public health, education and the third sector, I believe, have much bigger roles to play in enabling, empowering and informing the public, as well as informing the Joint Strategic Needs Assessment process.

I sincerely wish this project success and can see the logic behind it as well as the value of forward thinking.

Quality improvement

Quality is seen as important in all walks of life. In healthcare services, high quality is recognised when there is consistent delivery of excellent standards. Similarly, poor quality is seen when there is a failure to deliver consistent standards, or when only low standards are attained.

Quality improvement refers to the process by which improvement in the quality of a service or product can be achieved. Many different tools and techniques to achieve this have been developed. Don Berwick, founder of the Institute for Healthcare Improvement and advisor to President Obama on healthcare reform, recognised the power of these ideas (Berwick, 1989). The quality improvement process is not arcane and is not difficult to understand.

Although change requires strong organisational leadership, it cannot be delivered by managerial diktat alone. It requires organisations to cultivate reflective and empowered staff who are unafraid to suggest improvements, and management that is willing to listen and deliver the organisational structures that can support these improvements.

Where the concept of incremental improvement is embedded, it can harness the power of front-line staff to analyse problems in their workplace and suggest and deliver change. This can be part of a continual process of trying to improve the situation from within an organisation.

Simplicity

Quality improvement does not require costly new technology or legions of extra staff to implement. Instead, it requires the provision of space for front-line staff groups to reflect on their daily work and for each member of staff at every level to feel that they have a role in this process and are valued for their views. It relies less on telling staff what to do and how to do it and more on enabling staff to devise the best and most effective ways to do their daily work. The creation of such culture is not necessarily easy, but in the wake of the Francis Report (Francis, 2013), it is clearly essential for the future of healthcare.

A formative educational model is required in which good work is acknowledged and continuous improvement is embedded in the culture of the organisation. Relying on inspection alone to deliver quality improvement is destined to fail. As well as compliance with standards, inspection could be usefully focused on whether an organisation uses processes that embed the key principles of reflection and continuous improvement within its daily work.

Standards

- Staff at every level should understand the principles of quality improvement.
- Quality improvement activity that involves front-line staff should form part of every organisation.
- Application of specific methodologies for quality improvement should form part of the routine work of all units.

How standards can be met

National level

- Health Education England should promote understanding of the methodology of quality improvement.
- Inspection bodies should consider how they assess whether organisations are following the principles of continuous quality improvement.

Institutional level

- NHS trusts and other healthcare providers should find ways of supporting front-line staff as they devise and implement continuous improvement.
- Senior management should ensure that wards have access to appropriate IT and investigation-results systems.

Individual level

- Staff must feel supported. They must sense a desire from their organisation to help make their jobs easier. At the same time, they need to understand their crucial role in securing quality improvements and be encouraged to see this as an incremental process that occurs every day in the workplace.

Levers for change

- NHS trusts and other healthcare providers must support front-line staff in developing a sense of ownership and in devising and implementing continuous improvement.
- Educational institutions must teach quality improvement methods and address the need to have a skilled workforce in both physical and mental healthcare services.
- Inspection regimes must move from a methodology based around simply finding faults to one that inspects the capability of organisations to create a workplace with integrated quality improvement and learning mechanisms.

Useful resources

- *A Promise to Learn – A Commitment to Act. Improving the Safety of Patients in England* (National Advisory Group on the Safety of Patients in England, 2013).

- *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer* (Liker, 2004).
- *Gemba Kaizen: A Commonsense Approach to a Continuous Improvement Strategy* (Imai, 2012).
- *The Handbook of Quality and Service Improvement Tools* (NHS Institute for Innovation and Improvement, 2010).

Recognising physical illness

Detection and monitoring of acute physical illness

Recognising ‘the deteriorating patient’

During the early stages of an acute physical illness, various physiological parameters will change in a person who is becoming ill (‘the deteriorating patient’). It is essential to be able to recognise these physiological changes as soon as possible, so an appropriate ‘first response’ can be made.

A national recording system exists for identifying a physically deteriorating patient – the National Early Warning Score (NEWS; Royal College of Physicians, 2015). This is a validated and evidence-based approach to scoring and acting on triggers to identify and treat patients whose physical health is deteriorating. NEWS is widely used in the UK in acute hospitals and other healthcare settings.

NEWS

The NEWS is an aggregated score from each physiological parameter, including pulse and respiratory rates, temperature, oxygen saturation levels, systolic blood pressure and level of consciousness. At various levels (green, amber or red), the clinician will be prompted to recognise the severity of the patient’s physical status. The score defines the actions recommended for that level of severity of an acute illness, as well as the timescale within which this action should be undertaken (e.g. increase rates of observations, effect immediate transfer to a general hospital).

Standards

On admission to a psychiatric inpatient service, every patient should have their physical health parameters measured and recorded. These measurements allow a NEWS to be recorded and aggregated. When there is a concern about a patient’s physical health, or when an acute physical illness is suspected, NEWS should be used to assess and trigger the appropriate action.

This aspect of inpatient care should form an explicit domain for a quality-improvement plan for all psychiatric units. The quality-improvement plan should take into account:

- the profile of the physical healthcare needs of the patient population who are using the mental healthcare service

- the skills and knowledge needed by healthcare staff of all disciplines
- the processes followed in the course of an admission of a patient to the service, including development of appropriate pro forma and equipment
- information on each patient's physical health that is recorded on admission
- the availability of recording and resuscitation equipment
- access to pathology test results and specialist advice
- systems that can be used to focus attention on quality improvement on the above issues.

How standards can be met

- Audit patients' healthcare records to ensure that adequate clinical observations are recorded, so that NEWS can be applied.
- Retrospectively audit the records of patients who have experienced an acute physical illness to identify learning points as part of quality improvement.

National

- Health Education England and other health organisations, the Royal Colleges, patient and carer organisations, and others should promote the importance of integrated care and appropriate training for all staff.
- The promotion of quality-improvement methodology to encourage the joint development of service improvements and solutions from the front line.

Healthcare providers

- Essential training of staff should include the experience of facilitated group workshops incorporating Immediate Life Support training (www.resus.org.uk).
- This training should be supplemented by training in the use of the NEWS.
- Use the Royal College of Physicians' website as a source of advice and information on NEWS training.
- Senior management should ensure that a consistent system exists to record NEWS.
- Senior management should ensure that a Significant Event Analysis is undertaken for each patient whose physical health deteriorates significantly.

Inspection bodies

- Review the processes in place to recognise and monitor acute illness.

Interfaces with other services

- Share resources for education, training and continuing professional development (CPD) from a range of sources (e.g. acute hospital settings).

- Encourage health professionals from other health services to teach mental health professionals about physical health topics.

Pathology investigations to screen for physical illness

The following groups of investigations should be considered as a minimum to assist with the detection of a physical illness that might be the underlying cause of, contribute to or accompany SMI.

- **Haematological profile:** haemoglobin/full blood count; if indicated, ferritin, vitamin B12, serum folate levels.
- **Renal profile:** sodium, potassium, urea, creatinine, estimated glomerular filtration rate, albumin–creatinine ratio.
- **Hepatic profile:** alkaline phosphatase, bilirubin, alanine aminotransferase, gamma-glutamyl transferase, total protein, albumin.
- **Bone profile:** alkaline phosphatase, calcium, corrected calcium, phosphate levels.
- **Glycaemic control:** glucose, HbA1c (glycated haemoglobin).
- **Lipid profile:** cholesterol, triglycerides, high-density lipoprotein cholesterol.
- **Endocrine profile:** thyroxine, thyroid-stimulating hormone, prolactin.

Pathology investigations related to medicines

Healthcare professionals involved in the care of people with SMI should have access to the results of pathology investigations to facilitate informed, collaborative decision-making with patients at the point of care.

All members of the multidisciplinary team, people with SMI and (when appropriate) their family and carers should be aware of the need for, and be involved with, physical health monitoring and laboratory investigations when patients are prescribed psychotropic medicines.

Commissioners should ensure that there are agreements and resources in place to enable a comprehensive monitoring programme for all patients prescribed psychotropic medicines, across all settings.

An additional requirement to undertake physical and laboratory testing occurs when:

- it is necessary to gauge the impact of the medicine on the physical health of the individual
- mandatory requirements are implemented that are associated with the monitoring and supply of medicines

- standards are set for certain physical and laboratory investigations to provide a set of baseline measurements, when the medicine is first prescribed, and at various intervals thereafter to reduce the risk of adverse effects
- a clear relationship exists between the plasma concentration of the medicine, its efficacy and toxic effects.

Schedules for recommended and mandatory testing are provided in The Maudsley Prescribing Guidelines in Psychiatry (Taylor *et al*, 2015) or are agreed locally.

Governance

Performance is improved when regular audits occur and when there is clarity about the responsibility for screening for side-effects of medication (Barnes *et al*, 2015).

In an audit of the standards of lithium monitoring set by the National Patient Safety Agency (2009), the factors that were associated with the poor uptake of physical-health monitoring included: incomplete local implementation of monitoring guidelines; poor communication of test results to clinical teams; lack of communication between primary and secondary care; and a lack of dedicated monitoring services and central registers that generate reminders that tests are due (Collins *et al*, 2010).

Reports suggest superior monitoring was performed for patients receiving care in nurse-led, designated clinics or under pharmacist supervision (Osborn *et al*, 2010). There are examples of successful pharmacy-led, district-wide monitoring registers in Norfolk and Leicestershire (Kirkham *et al*, 2013).

Electronic access to results

Timely direct access to pathology results is a key element of safe prescribing. This is a critical patient safety issue: responsibility for ensuring results are accessible should rest at board level of the local clinical commissioning group and other organisations involved in delivery of the care.

Although there does not seem to be a single solution to the problem of being without direct network access to pathology results, the following suggestions are made to help those struggling to implement a solution.

- **Clinical leadership:** there should be a named individual who has responsibility for implementing a service-wide pathology test system.
- **Information governance:** there should be an information governance system agreed by the entire healthcare community served by the pathology service.
- **IT infrastructure:** adequate IT infrastructure is essential to meet the practical demands of the pathology service and meet the

information governance requirements of giving access to test results across organisational boundaries.

- **NHS number:** the patient's NHS number is a unique identifier for all NHS patients and should be utilised.
- **Mobile working:** mobile IT solutions should be made available to community-based clinicians (including psychiatrists) that provide access to test results that are held on laboratory information systems.

Disease prevention

Health is determined by a person's underlying genetic predisposition (30%), behavioural patterns (40%), social circumstances (15%), healthcare (10%) and environmental exposure (5%) (Schroeder, 2007).

Modifiable disease risk factors include physical activity, a healthy diet, and maintenance of a normal body weight. Potentially modifiable risk factors include social circumstances (e.g. employment, income, housing, education), the avoidance of health risks (e.g. addictions, substance misuse, accidents, injuries, infectious diseases, dental caries) and the effective delivery of healthcare.

Many of these risk factors are covered in public health guidelines, NICE guidance on various conditions (or their equivalents in other jurisdictions of the UK) and by the World Health Organisation (Wilkinson & Marmot, 2003).

This section sets out some factors that should be tackled and outlines methods that can be used at various levels.

Tobacco smoking

NICE (2013) and the Royal College of Physicians & Royal College of Psychiatrists (2013) identified that, although 20% of the general population smoke tobacco, smoking is about twice as common among people with mental health disorders, and more so in those with more severe illness. One in three of all cigarettes smoked are smoked by people with a mental health condition.

Although smoking in the general population has fallen by 25% in the past two decades, there has not been a similar decline in smoking in people with a mental health condition. Not all patients with a long-term mental health problem want to quit smoking, but the majority do (in similar proportions to the general population). However, they are more likely to be heavily dependent on smoking and are less likely to be offered support to quit, compared with the general population.

Tobacco smoking adversely affects physical health and shortens life-expectancy (from cardiovascular and respiratory diseases and diabetes). In smokers with mental health problems, the tobacco use might necessitate higher doses of antipsychotic medication.

Standards

- Tobacco use and the severity of tobacco dependence should be routinely assessed and recorded for all patients receiving

inpatient, community or primary care for a mental illness. This should be done at each admission to and discharge from an inpatient psychiatric facility, at each Care Programme Approach review and at each physical health check.

- Advice should be given to all smokers about the benefits of quitting smoking on mental and physical health (Taylor *et al*, 2014).
- Evidence-based support to quit should be available to all smokers during inpatient admission and/or community treatment, delivered by a trained specialist stop-smoking practitioner; this may include nicotine replacement therapy (NRT), bupropion or varenicline, combined with behavioural support.
- Mental healthcare settings should be smoke-free in buildings and grounds, in accordance with NICE (2013) guidance.

How standards can be met

- All mental healthcare services should be smoke-free.
- Record smoking status at the same time as monitoring vital signs.
- Assess severity of tobacco dependence by asking how many cigarettes a day the smoker usually has, asking what time they usually have the first cigarette of the day and measuring their expired-air carbon monoxide level.
- Record smoking status, severity of dependence and carbon monoxide levels in the patient's electronic health record. This should be completed at agreed times (e.g. on admission and discharge from hospital, on first-contact with community services, at each Care Programme Approach review and annual health check).
- Ensure patients have rapid access to sufficient NRT on admission to smoke-free mental health settings.
- Ensure systems and equipment are in place to monitor plasma levels, potential toxicity and dosage of medication, as these can be affected by tobacco smoking or sudden smoking cessation.
- Offer all smokers support to quit, as this leads to more people making a quit attempt, compared with simply asking smokers if they are interested in stopping (Aveyard *et al*, 2012).
- Smokers are more likely to quit if they receive support from a service that provides intensive behavioural support by a trained stop-smoking specialist whose sole or main part of their job is stop smoking and are prescribed varenicline or combination NRT (i.e. at least two products) (Aveyard *et al*, 2012).
- For smokers who have tried licensed stop-smoking medicines, been fully adherent and have still not managed to cut down or quit, consider giving advice about forms of nicotine delivery that can be less harmful than smoking tobacco (e.g. e-cigarettes).
- It should be a core competency for mental healthcare staff to know about the evidence-based treatments available to support a quit attempt, how to make a referral to a specialist smoking

cessation adviser and how to manage temporary abstinence from tobacco smoking.

- Use local systems to share information about tobacco-dependence treatment as appropriate and agreed between a patient, their carers, primary and secondary care and stop-smoking services.

Levers for change

- Introduce mandatory structured fields within electronic health records to record smoking status and related information.
- Embed prompts within electronic health records to encourage clinicians to update smoking information.
- Clinical commissioning groups should only commission mental healthcare services from services that are smoke free and offer a tobacco-dependence treatment pathway.

Interfaces with other services

- Primary care, secondary care and local specialist smoking-cessation services should ensure that IT systems are in place to be able to share information about personal quit plans and monitoring the effects of changes in smoking status on mental health and psychotropic medication.
- Integrated electronic referral and care pathways are necessary between specialist smoking-cessation services (in primary care, community mental healthcare and inpatient services) to enable a smoker to access support at any point in their care.
- Smokers should receive continuous, consistent, efficient care and treatment at transition points in their care.

Education, training and CPD

- Undergraduate training (nursing, medical and allied health professionals) should include tobacco dependence in the curriculum.
- Health professionals should complete undergraduate training with knowledge of tobacco dependence in mental health and be trained in the necessary skills to motivate smokers to make a quit attempt.
- Education and training should include:
 - how to have conversations with smokers to increase their motivation to reduce/stop smoking
 - how to assess the severity of tobacco dependence and expired-air carbon monoxide
 - knowledge of how stop-smoking medicines work and skills to optimise adherence
 - what stop-smoking medication side-effects to expect and how to manage them
 - how to assess and minimise tobacco withdrawal symptoms
 - how to provide intensive behavioural support.

- Smoking-cessation specialists employed by local authorities should develop competencies to adapt their treatments to smokers with SMI.

Obesity

Obesity is a common comorbidity of SMI that needs to be prevented and treated. Healthy diet should be promoted, and healthy food and drink choices provided in hospitals.

Standards

- Body mass index (BMI) should be used as a measure of overweight and obesity in adults. Waist circumference can be used, in addition to BMI, for people with a BMI <35 (NICE, 2015a).
- General practices should maintain a register of patients with SMI, aged 16 or over, with a BMI of ≥ 30 over the last 12 months (NHS England, 2014c). This will allow targeted interventions to be offered to this group of people.
- For patients taking psychotropic medication, weight and waist measurements should be checked periodically. Weight should be checked at baseline, weekly for the first 6 weeks, then at 12 weeks, 1 year and then annually. Waist circumference should be checked annually. These measures should be checked more often if weight gain is rapid (NICE, 2014a).
- Assess and diagnose the causes of overweight and obesity and address the causes (NHS England, 2013).
- Preventing and managing obesity is a priority, and on-site catering should promote healthy food and drink choices in hospitals (NICE, 2015a).
- Physical activity should be promoted, with policies about and facilities for regular participation in physical activity (NICE, 2015a).
- Orlistat should be prescribed only as part of an overall plan for managing obesity in adults and in line with current British National Formulary guidance (NICE, 2014a).
- Bariatric surgery is recommended only for people with BMI >40, or 35–40 in the presence of other significant diseases, after all appropriate non-surgical measures have been tried but have failed (NICE, 2014a).

How standards can be met

National level

- Clear guidance on measuring, recording and managing obesity (such as NICE (2014a) guidance on obesity).
- The Royal Colleges, NHS England, commissioning boards and other stakeholders should make a commitment to tackle obesity.

Healthcare provider level

- Provide education to staff, patients and the general public in diagnosing and managing obesity.
- Provide staff training on BMI and waist circumference measurement and the equipment to monitor weight (i.e. scales, BMI calculators, tape measures).
- The Lester tool (Shiers *et al*, 2014) should be provided to all staff to remind them of the circumstances in which to act.
- Service-level or NHS-trust-level agreements for quick referrals (e.g. to a dietician or occupational therapist) and for patient monitoring in the community.
- Arrange healthy diet provisions and opportunities for physical activities on the healthcare provider's sites.

Individual level

- Personal commitment and responsibility from patients and professionals.

Levers for change

- Regular review of the data from CQUIN targets (or other incentive schemes) (NHS England, 2014).
- Consider incentives such as the QOF (NHS England 2014/2015) and CQUIN targets (NHS England, 2014) for tackling obesity.

Interface between services

- Effective communication between primary and secondary healthcare services to ensure compliance with guidelines (i.e. measuring the weight of patients regularly both in hospitals and community and to continue the management plan).

Oral health

Good oral health is an essential part of general health. Poor oral health impacts negatively on quality of life, everyday functioning, social inclusion and self-esteem.

Although surveys have shown an improvement in the oral health of adults, Kisely *et al* (2011) found that this was not the case with people with SMI, who:

- were more likely to be edentate (26% of people with SMI had no natural teeth compared with 6% of the general population) (Steele & O'Sullivan, 2011; Patel & Gamboa, 2012)
- had higher rates of tooth loss (Steele & O'Sullivan, 2011) and decay (1.9 v. 0.8 decayed teeth) than the general population (Kisely *et al*, 2011)
- had poorer oral hygiene (Stiefel *et al*, 1990) and higher rates of gum disease than the general population (Patel & Gamboa, 2012).

Standards

- An oral health assessment should be included in the care pathway of all adults with SMI (Griffiths *et al*, 2000).
- Evidence-based preventive oral health advice and treatment should be made available to patients and as appropriate to carers (Griffiths *et al*, 2000; Public Health England, 2014; NHS England 2015b; NICE, 2015b).
- Access to integrated dental care services should be provided to meet the needs of people with SMI (NHS England, 2015b).

How standards can be met

- An oral health assessment should be included within the physical health assessment of those with SMI, and lead to an oral care plan that is followed, reviewed and revised as needed, on a regular basis.
- Dental teams can ensure that preventive advice and treatment is provided that will meet a person's needs and follows evidence-based guidelines (Public Health England, 2014; NICE, 2015b).
- Commissioners, local dental networks and managed clinical networks for special care dentistry should ensure integrated services are available that meet the needs of people with SMI (NHS England, 2015b).

Public Health England

- Review the evidence of what works to prevent oral disease (e.g. as in Delivering Better Oral Health; Public Health England, 2014).
- Work with people with SMI to provide consistent, evidence-based messages that are accessible by people with SMI and their carers, and also can be used by the staff providing care.

Commissioners, including local authorities and NHS England

- Target and tailor oral healthcare to meet the needs of people with SMI.

Health Education England

- Commission appropriate CPD for dental teams about mental illness and its impact on oral health.
- Include an oral health module in the curricula for the training of nurses and health professionals allied to medicine.

Health professionals

- Include oral health in every care plan, with assistance from dental professionals.
- Provide evidence-based advice and treatment, as in Delivering Better Oral Health (Public Health England, 2014) and the NICE guidance NG30 (NICE, 2015b).

Levers for change

- Care Quality Commission inspection process could include requirements for an oral healthcare assessment and for oral health to be part of a patient's care plan.
- CQUIN payments and other incentive schemes could be used to drive and promote innovation in oral healthcare.

Interface between services

- Preventive lifestyle services can affect oral health (e.g. healthy diet, smoking cessation and alcohol risk reduction).
- Integration of the dental care pathway that may include routine treatment by a general dental practitioner. However if mental illness is severe, patients may require referral for more specialised dental management (Stiefel *et al*, 1990).

Infectious diseases and disease prevention

People with mental disorders are more prone to various infectious diseases than people in the general population. The range of infectious diseases includes viral hepatitis, such as hepatitis B and C, and human immunodeficiency virus (HIV). Risk factors that can contribute to the increased prevalence of infection diseases include being incarcerated, alcohol and substance misuse (especially intravenous drug misuse), homelessness, and behaviours that pose a risk to sexual health.

The studies reported here are mainly from the USA, as few UK studies are available. For instance, the prevalence of seropositivity to hepatitis C in people with SMI is not known in the UK. However, reports from the USA indicate that the rate of seropositivity to hepatitis C in people with mental illness varies between 9% and 38% (Goff *et al*, 2005; Tababian *et al*, 2008; Rothbard *et al*, 2009). It is recommended that those at high risk of hepatitis C infection are screened to enable those infected to receive appropriate care and reduce the spread of the disease.

Similarly, the above risk factors may lead to higher rates of hepatitis B and HIV infections. A study from the USA reported that the prevalence of HIV among patients with chronic mental illness was 23.4–32.0% (Goff *et al*, 2005; Tababian *et al*, 2008; Rothbard *et al*, 2009). Much remains to be learned about primary prevention and the effective provision of treatment in this group. In the UK, patients in inpatient psychiatric units are sometimes offered hepatitis B immunisation. People at risk of sexually transmitted disease could benefit from routine screening and treatment.

Infection control

Inpatients in psychiatric settings differ from inpatients in acute wards, as they usually have fewer physical comorbidities and indwelling

devices than patients in acute hospitals. Respiratory diseases account for most outbreaks of infectious diseases in psychiatric units, such as respiratory syncytial virus, adenovirus, influenza virus, as well as infections from tuberculosis and group A streptococci (GAS) (Fukuta & Muder, 2013).

Gastrointestinal infection is the second most common type of infectious outbreak in psychiatric units (norovirus outbreaks in inpatient psychiatric units are well described) (Weber *et al*, 2005; Johnston *et al*, 2007; Gilbride *et al*, 2009; Tseng *et al*, 2011). Gastrointestinal infections caused by *Shigella sonnei* were confirmed in the UK in 1986 (Hunter & Hutchings, 1987) and outbreaks of *Salmonella enteritis* in psychiatric units have been reported from several countries (Galloway *et al*, 1987; Ahmad *et al*, 1991; Goh *et al*, 1992; Evans *et al*, 1996; Grein *et al*, 1997).

Skin infections such as scabies outbreaks, GAS and methicillin-resistant *Staphylococcus aureus* (MRSA) infections have also been described in this patient population (Fukuta & Muder, 2013).

Management

Routine testing for HIV, hepatitis B and hepatitis C should be offered to at-risk groups in psychiatric settings. Testing for sexually transmitted disease should be performed on the basis of findings from the history and physical examination on admission.

Where there is a high index of suspicion of tuberculosis, a referral should be made to a respiratory physician or infectious diseases physician. Testing for latent tuberculosis should be considered in the following groups:

- new entrants to the UK from high-incidence countries
- those who are in contact with a person infected with tuberculosis
- those who are immunocompromised.

Testing can be undertaken using an interferon gamma release assay, as recommended in recently published NICE (2016) guidance.

Improving clinical care

Liaison physician

Providing physical healthcare services to people with SMI is complex for a number of reasons. People with SMI often have other long-term conditions, such as diabetes and cardiovascular and respiratory diseases. Medication to manage one condition often exacerbates other conditions. For instance, psychotropic medication can make diabetes more complex to manage.

People with SMI are more likely to be impoverished, unemployed and dependent on welfare benefits. These factors make adhering to dietary guidance and taking regular exercise less likely, when faced with other pressures of daily life. People with SMI are more likely to smoke, which exacerbates long-term conditions. People with SMI are also more likely to suffer from side-effects related to their psychotropic medication (e.g. hyperprolactinaemia, which can affect fertility, body image and bone health).

Some people with SMI have difficulty in arranging proactive healthcare in relation to their long-term conditions (e.g. diabetic eye checks, blood-pressure checks, influenza vaccination). Certain patients, for instance long-stay inpatients, might find it difficult to access health screening, such as cervical cytology, mammography and bowel-cancer screening.

Different techniques are needed to address these individuals' specific needs in the community and in inpatient psychiatric settings. In particular, it is essential that people with SMI who are long-stay inpatients in mental healthcare services have access to the same physical health services for long-term physical conditions, health screening and immunisation as are available to the general population.

The role of a liaison physician

The role of a liaison physician has been described by the Royal College of Psychiatrists (2013). The role of the liaison physician is comparable to the well-established role of a liaison psychiatrist. In liaison psychiatry, a specifically trained psychiatrist provides psychiatric care and advice to acute hospitals and services in the community.

A liaison physician provides physical healthcare advice and treatment to patients in psychiatric units and the community. A liaison physician is likely to have a background as a GP, or a medical physician, and will understand the needs and complexities of managing the physical health of people with SMI.

The liaison physician should be a member of the physical healthcare team, which is made up of healthcare professionals from many disciplines, including nurses, speech and language therapists, physiotherapists and dieticians.

The role of the liaison physician is fivefold:

- 1 The liaison physician will provide care to inpatients in psychiatric services (including long-stay patients in secure settings), as well as people with SMI living in the community who are not in regular contact with their GP.
- 2 The standards of care provided by the liaison physician will be equivalent to the standards of care provided to the general population (i.e. meets standards set by NICE or equivalent bodies).
- 3 The liaison physician will act as an advisor to the board of the mental-healthcare provider on all matters relating to the physical health of their patient population.
- 4 The liaison physician will act as advisor on the educational needs of the mental-healthcare provider's staff relating to physical healthcare. They might liaise with the educational department to ensure that psychiatric staff are trained to an appropriate standard in key aspects of physical healthcare.
- 5 The liaison physician would collaborate with the mental-healthcare provider to facilitate research and developments that will improve physical healthcare.

The development of the role of the liaison physician should be part of the remit of the National Steering Group. This group will need to address the details of the role, including the training and curriculum, and the need for postgraduate qualifications.

Summary

Having liaison physicians would be a significant advance in the care of people with SMI. The role would address the lack of parity between mental and physical health, and as a cohort of motivated and trained specialists, liaison physicians would also advocate for the physical healthcare needs of those with SMI.

Respiratory diseases

Top ten tips for mental healthcare teams to improve care and respiratory outcomes for people with SMI

1 Organise annual flu vaccination

Organise and actively encourage annual flu vaccination for staff and patients with SMI. Talk about the benefits and make it as easy as possible (London Respiratory Network, 2015).

2 Seek stop-smoking training

Seek training in helping patients and staff who are smokers to quit, so you and your team are able to identify and treat tobacco dependence (a high-value intervention for physical health). Smoking cessation is associated with reduced depression, anxiety and stress and improved mood and quality of life, compared with continuing to smoke. A 2014 systematic review showed these benefits are as great for those with mental illness as for those without (Taylor *et al*, 2014). The beneficial effects of stopping smoking are equal to or larger than those of antidepressant treatment for mood and anxiety disorders.

3 Check expired-air carbon monoxide levels

Check expired-air carbon monoxide levels (London Clinical Senate, 2016) on admission to a ward or at first visit in the community so that:

- nicotine withdrawal is dealt with early
- people know their 'level' and what their options are.

More patients are transferred by ambulance to emergency departments because of tobacco use than because of alcohol use. Varenicline is safe and effective and should be on every formulary and guidance on effects of quitting smoking on dosages of medication (see p.50 for more information).

4 Ask about breathlessness, cough, sputum and sleepiness

Ask your patients about breathlessness, cough, sputum and sleepiness. These symptoms are indicative of a number of common and treatable respiratory conditions, such as asthma, chronic obstructive pulmonary disease and sleep apnoea. Arrange spirometry for any patient with a history of smoking and any of these symptoms. The Improving and Integrating Respiratory Systems (IMPRESS) breathlessness algorithm is a good example of the types of questions to ask and the cyclical nature of the assessment (The Health Foundation, 2014).

5 Arrange urgent chest X-ray for new or worsening symptoms

Arrange an urgent chest X-ray if there are new or worsening respiratory symptoms or any unexplained new symptoms in a current or ex-smoker.

6 Use a pulse oximeter and act on the findings

Have and use a pulse oximeter, and act on the findings. Remember, oxygen is a treatment for hypoxia, not breathlessness. Finger pulse oximeters are now cheap, easily available, easy to use, reliable, save clinicians' time and make it less likely that low oxygen saturations are missed in people with SMI. Consider providing key staff each with their own finger pulse oximeter.

7 Consider referral to pulmonary rehabilitation

Consider referral to pulmonary rehabilitation to help patients 'breathe better, feel good and do more' (IMPRESS, 2011). If pulmonary rehabilitation is not available to your patient group, identify the number of patients missing out and the potential effects of them missing out. If you work in an inpatient unit and there are sufficient inpatients who would benefit, discuss with the respiratory team and commissioners the possibility of a dedicated programme. Audit its effectiveness.

8 Prescribe and take inhalers seriously

Prescribe inhalers responsibly and take inhaler technique and use by patients seriously. Follow our responsible respiratory prescribing messages (NHS Networks, 2014).

9 Be clear who is responsible for palliative care

People with lung cancer who need palliative care will be transferred to the care of the respiratory team. People with non-malignant disease, where the prognosis is less predictable, will benefit from shared care. Ensure it is clear where responsibility for palliation of a patient with mental health problems and respiratory symptoms lies (Cambridge University Hospitals, 2016).

10 Include deaths of people <75 with SMI in reviews of adverse incidents

Include the deaths of people under 75 years of age with SMI in reviews of adverse incidents. Arrange a meeting with the respiratory team lead for mental healthcare. Ensure you have their phone number. Consider holding a joint mortality meeting with your local respiratory team for any premature deaths due to asthma, pneumonia, lung cancer or COPD.

Diabetes

Standards

- NICE guidance on preventing type 2 diabetes (NICE, 2012) should be followed. People with mental illnesses are a vulnerable group, because of a combination of psychotropic medication, lifestyle and genetics.
- Pre-diabetic patients should be referred for an intensive structured lifestyle educational programme, and if ineffective consider using metformin.

How standards can be met

- All patients to have access to clear information on healthy lifestyle choices in relation to diabetes prevention.

- All patients to be made aware of potential problems associated with some psychotropic medication in relation to diabetes development.
- Ensure the availability of non-pharmacological interventions to prevent weight gain in those at risk in the community.
- Ensure clear communication of assessments/management plans between general practices and mental healthcare teams.
- Establish collaborative working between the Royal Colleges, NHS England, commissioning boards and stakeholders.
- Provide incentives for diabetes prevention to facilitate the delivery of integrated care across providers by sharing the results of the National Diabetes Audit.
- Mental healthcare services need to ensure that there is appropriate specialist care available from a clinician who has experience of both diabetes and SMI, such as a liaison physician.
- Provide education to staff on diagnosing and managing diabetes.
- Provide opportunities for physical activity both for inpatients and community patients.

Levers for change

- Participation in the National Diabetes Audit.
- Consider incentives such as the QOF and CQUIN targets.
- The QOF currently does not include diabetes screening for patients with SMI, but annual checks could prompt this.

Interface between services

- Integrate care between general practices and mental healthcare services to ensure the regular monitoring of patients at risk (SMI registers should be kept up to date).
- Integrate care between psychiatric services, dieticians and specialist diabetic services (link workers) to provide advice, support, regular screening and management.

Education, training and CPD

- Ensure staff are aware of resources such as the Lester tool (Shiers *et al*, 2014) and NICE (2012) guidance on type 2 diabetes.
- Clinical staff should be able to identify diabetic emergencies and respond appropriately to reduce long-term risk and ensure access to specialist services when necessary
- All appropriate staff should be educated on using appropriate tools, tests and observations and be able to identify when test results are outside of normal ranges, reporting and accessing specialist services when necessary
- Empower patients with clear information to support their choices about their own health

Cardiovascular disease

Standards

- All patients need to be screened for cardiovascular risk factors and cardiovascular diseases should be treated as a family of diseases (NICE, 2014*b*; JBS3 Board, 2014).
- NICE recommends the QRISK2 assessment tool, as it is based on UK data (www.qrisk.org).
- Any patient with identified cardiovascular disease, or with a QRISK2 score over 10%, requires primary and secondary prevention.
- People with schizophrenia should be routinely monitored for weight-related, cardiovascular and metabolic indicators of morbidity (NICE, 2014*a*).
- All people with SMI should be offered:
 - advice and access to a healthy eating and physical activity programme
 - advice about the risks of excessive alcohol consumption
 - advice and access to a smoking-cessation programme.

How standards can be met

- Mental healthcare services must calculate the QRISK2 score as part of their physical health assessment and communicate the results to the patient and their GP.
- The patient should be informed of their risk assessment and how to reduce their risk.
- Lifestyle advice must be consistent across primary and secondary care.
- Mental healthcare services must be able to provide comprehensive lifestyle interventions, and should make optimal use of local authority and national healthy living programmes.

Levers for change

- CQUIN scheme should explicitly include QRISK2 scoring for every patient with SMI, at least annually.
- The QOF requires GPs to perform annual checks on those on the SMI register, but these checks only include blood pressure measurement, alcohol and smoking status. The QOF for mental health should include calculation of the QRISK2 score for patients with SMI who are over 30 years of age.

Interface with other systems

- When GPs perform QRISK2 scoring for patients with SMI, the results should be communicated to mental healthcare services.

- CQUIN targets can be used to provide financial incentives for good communication between psychiatric services and GPs. They should jointly decide, on an individual basis, how to encourage a patient to make lifestyle changes.
- Primary and secondary care services should be up to date with local resources for lifestyle improvement organised by the local authority or Public Health England. People with SMI should not be excluded from these services.

Education, training and CPD

- Non-medically trained mental health staff might need training in measuring blood pressure, waist circumference and BMI. The QRISK2 assessment is simple to use, however some IT training might be required to ensure data is collected in a way that can be easily accessed by psychiatric services and primary care.
- Brief interventions in behaviour change have been shown to be effective in improving patients' diet and exercise behaviour (NICE, 2007). All primary care and mental health staff should be trained in such interventions.

Hypertension

Hypertension is defined as blood pressure measured in the clinic at 140/90mmHg or higher. Offer ambulatory blood pressure monitoring (ABPM) to confirm the diagnosis of hypertension. For use and interpretation of ABPM, consult the most recent NICE guidelines on the management of hypertension.

Standards

- There should be an annual blood pressure check for each person with SMI.
- The result should be appropriately recorded in the patient's electronic records with a description of an appropriate action.
- If blood pressure is >140/90mmHg, a referral should be made to a clinician able to undertake further investigation.

How standards can be met

- Mental healthcare services can measure blood pressure and calculate QRISK2 score as part of their physical health assessment. Results must be communicated to the patient and their GP.
- When GPs measure blood pressure and/or calculate a QRISK2 score for a patient with SMI, the results should be communicated to the patient's psychiatric services.
- The patient should be informed of their risk assessment and how to reduce their risk.
- Lifestyle advice must be consistent across primary and secondary care.

- Psychiatric services must be able to provide comprehensive lifestyle interventions and should make optimal use of local authority and national healthy living programmes.

Levers for change

- CQUIN provides financial incentives to mental healthcare services and can require assessments and interventions as per NICE (2014c) guidelines for cardiovascular disease. QRISK2 score should be incorporated into CQUIN targets and data collection.
- QOF provides incentives for GPs to perform annual checks for people on the SMI register.

Interface with other services

- CQUIN provides financial incentives for good communication between mental healthcare services and GPs. Primary care should also communicate with mental healthcare services about physical healthcare and jointly decide, on an individual basis, how to encourage an individual to make lifestyle changes.
- Primary and secondary care services should be up to date with local resources for lifestyle improvement organised by the local authority or Public Health England. People with SMI should not be excluded from these services.

Education, training and CPD

- Educational sessions with inpatient and community mental healthcare teams to highlight the importance of physical health checks.
- Community psychiatric nurses should receive training on measuring blood pressure.
- The curriculum for training psychiatrists should include the identification and management of long-term conditions and the physical conditions found more frequently in people with SMI. Management should include up-to-date NICE guidelines (e.g. NICE, 2011) and the Lester Tool (Shiers *et al*, 2014).

Information technology

IT systems in primary care

IT systems have been available in general practice for over 30 years. All primary care services in the UK use dedicated software to record patient consultations, and in most cases, to record any prescription that is issued. The same IT systems receive test results from the pathology laboratory and file these test results in the patient's records. These IT systems also have the capability to run an appointment system.

Since 2004, with the introduction of the GP contract, payments to GPs have been made on the basis of the achievement of certain nationally agreed process and outcome measures called the Quality and Outcome Framework (QOF). This payment system is only possible to operate with the electronic recording of consultations, prescriptions and pathology test results.

As the QOF requires accurate data, every primary care service uses an IT system, and there is consistency about how data is entered, and therefore analysed. Furthermore, the database of each service can be easily interrogated to answer questions that are specific to an individual service.

Academic centres, such as those in Nottingham and Sussex, have access to the anonymised databases of many general practices, providing a combined population of several million patient records that go back over decades. This database contains information about consultations, pathology test results and medications, and it has become an invaluable research tool for understanding, for example, the associations between different disorders, and the benefits and side-effects of medications.

IT systems are also becoming more effective at generating advice and support to the GP. When a medication is prescribed, the software will automatically check for entries in the system that indicate the patient has an allergy to that medication, and check whether that the medication will interact with other medication already prescribed.

The IT system can track how frequently a prescription for a medication is repeated and if the frequency is compatible with the amount of the medication issued on the electronic prescription. It can also generate reminders for checks to be made that are associated with a specific medication, and link this to pathology test results. The most common example of this is the monitoring of lithium, but the same process could be applied to clozapine monitoring; a process

usually undertaken by the mental healthcare provider rather than by a general practice.

Finally, modern IT systems in general practice are also allowing patients to have limited access to the IT system to give patients the ability to undertake certain activities. For instance, modern primary care IT systems may permit patients to use the IT system to request a repeat prescription, make an appointment, and generate a summary of the patient's major conditions for their own use.

IT systems in mental healthcare services

Generally, IT systems in mental healthcare services are not as well developed as those in primary care settings. The IT systems in mental healthcare settings do not usually have the facilities to integrate prescribing and dispensing information, or the facility to accept and automatically file pathology test results.

GPs' electronic records are usually relatively short for each consultation, whereas in inpatient psychiatric services, the consultation record and types of information are extensive. Clinical needs are different, and the amount of information stored at each consultation is quite different. To speed searches, most information in GPs' systems is coded (Read codes), which is not the case in psychiatric settings. Therefore, searching psychiatric inpatient records is a much slower and more difficult process than searching GPs' systems.

Improving IT systems in mental healthcare services

Mental healthcare services' IT systems are considerably less well-developed than the IT systems in primary care, and do not offer the functionality that GPs enjoy. Developments in IT systems in mental healthcare settings could allow clinicians to deliver more consistent and reliable clinical care, and to provide clinicians, patients and carers with the information they need to improve standards of both physical and mental healthcare.

For a discussion of the importance of timely, direct electronic access to pathology results, see p. 48.

Electronic prescribing

Electronic prescribing should be the norm throughout the NHS and other healthcare providers. Separate or standalone systems for electronic prescribing systems are unlikely to provide all the safety benefits that fully integrated electronic prescribing systems offer.

Electronic prescribing systems should ensure the seamless transfer of relevant clinical information, in a standard format, between pathologist, prescribing clinician and dispensing clinician. This includes immediate access to pathology test results and other clinical information relevant to prescribing, such as allergy details.

Electronic prescribing systems should allow both prescribing and 'view-only' access by all clinicians involved with the patient, regardless of the location of clinical contact. This will be particularly important when patients are seen at home or in the community, where mobile access to an electronic prescribing system will be required.

To achieve full integration within the clinical electronic record-systems and across different prescribing systems, a number of obstacles will need to be overcome:

- Implementation of national standards for the descriptions of drugs and dosages.
- Standardisation of prescribing (e.g. prescribing the required dose by the number of milligrams, or by the number of tablets of specified strength).
- Integration between pharmacy and prescribing systems.

For example, if a pharmacist uses their professional judgement to amend a prescription and supply a product that differs from that stated on a prescription (e.g. to supply generic lithium carbonate in place of a named brand), the pharmacist should be able to update the prescribing record accordingly.

Although there is general agreement across all healthcare providers that electronic prescribing systems are generally safer and reduce the likelihood of medication errors, it is important to recognise that electronic prescribing can introduce new types of error that are not seen with traditional, paper-based systems.

In particular, look-up or selection errors can be introduced when a prescriber selects the wrong drug from a drop-down list of medications. Perhaps one of the most frequently encountered selection errors is associated with the different forms of zuclopenthixol. Zuclopenthixol acetate (clopixol acuphase) can easily be mistakenly selected when zuclopenthixol decanoate (depot form) is indicated (or vice versa).

Although many clinicians welcome alerts or reminders about potentially harmful prescribing decisions, such as those associated with drug interactions, these may become less helpful if the clinician is constantly reminded about the potential for all interactions.

For example, cumulative warnings about drowsiness can become tedious. If a prescriber is constantly being asked to confirm that they want to override a warning, this may result in ‘warning fatigue’, and a warning of a serious or potentially life-threatening issue could be unintentionally overridden.

Appendix 1. Example of training in physical healthcare

Improving physical healthcare through simulation: RAMPPS

The Recognising and Assessing Medical Problems in Psychiatric Settings (RAMPPS) course was formulated in 2011 through the combined work of regional mental healthcare NHS trusts, the Yorkshire and Humber School of Psychiatry and a clinical skills network, led by Dr Paul Rowlands (Head of the Yorkshire and Humber School of Psychiatry).

RAMPPS is a short, interactive course for multidisciplinary teams. Simulated patients are used to develop situational awareness, clinical skills and effective communication in medical emergencies that occur in psychiatric settings (Dave, 2012). All clinical scenarios have been generated with the multidisciplinary team in mind – typically a doctor, nurse and healthcare assistant – to facilitate interactive, group-based learning.

RAMPPS includes eight clinical scenarios that can be used flexibly in a range of situations. Most scenarios involve the use of manikins or simulated patients and are delivered to one group of delegates, while another group observes; both groups engage in facilitated discussion during debrief, after the scenario is completed. Multidisciplinary trainers are available to give immediate feedback after each scenario, and can intervene during the scenario if necessary.

An eLearning package is available for RAMPPS delegates to review the key principles of the course. This allows for more time to be invested in simulations, with less time spent on didactic teaching and theory. A video on the use of RAMPPS is available online (www.youtube.com/watch?v=z4GNaCmZoeA&feature).

How can simulation help with training?

A person can be trained to simulate certain clinical signs or symptoms, or they may play a particular role to facilitate the learning or assessment of delegates (Ker & Bradley, 2010). In this way, health professionals can be exposed to a wide range of conditions and

scenarios. Professional simulated patients can also step in and out of their role to provide valuable feedback to a team (Dave, 2012).

The benefits of using simulated patients include facilitating team-based learning, enabling reflective thinking, and promoting feedback from peers, teachers and the simulated patient (Eagles & Calder, 2011). RAMPPS training emphasises the team-based approach to scenarios and the importance of effective communication, for example the use of the SBAR (Situation, Background, Assessment, Recommendation) system and the ABCDE (Airway, Breathing, Circulation, Disability, Exposure) approach.

Other disciplines in medicine and the aviation industry have found that simulation training enhances satisfaction with learning and improves safety (Rosen, 2008; Howard & Gamble, 2011). Simulation training gives the learner the opportunity to make errors without compromising patient safety, to experience different ways of approaching a scenario, and learn where improvements can be made. Simulation training can also enhance the realism of scenarios and enable teams to acquire the experience to deal with relatively uncommon events (Brenner, 2009).

Progress

Before and after RAMPPS courses, feedback is requested from delegates to evaluate the effectiveness of the course and guide improvements. New stations and scenarios are always being reviewed and added. Courses are run in Sheffield and Montagu twice a year, with approximately 30 and 10 delegates, respectively, per course. RAMPPS courses are being expanded into Leeds, Harrogate and Derby, with further discussions being held with York and Bradford, and with Sheffield Children's Hospitals for a modified RAMPPS course for child and adolescent mental health services.

Appendix 2. Working with commissioners

A London-based group has been engaging with commissioners to improve the physical health of people with SMI. The role of the Healthy London Partnership in supporting change is specific to London, but could be emulated in other areas. Here we describe the approaches that can be taken when working with commissioners.

The London approach

The Healthy London Partnership is an agreement and programme of work focused on transformation programmes with priorities identified from an independent review of health in London established by the Mayor.

The related London Health Board includes representatives from 32 clinical commissioning groups, Public Health England, NHS England, London councils and the Mayor of London. The key element is a pan-London agreement of all clinical commissioning groups and partner organisations to work towards agreed objectives or transformation programmes.

Placing the group's work on physical health in SMI under the auspices of the London Health Board has lent authority to the group's recommendations, raised the profile of their work and ensured access to senior NHS commissioners and staff with influence over regional and local developments.

The combination of the Mayor's London Commission Review, which prioritises improvements in physical healthcare for individuals with SMI, alongside the existence of the Healthy London Partnership to support this work, lends these initiatives a mandate and a key infrastructure to deliver the outcomes.

Strategy

To develop, and encourage the uptake of, commissioning guidance on the physical healthcare of individuals with SMI, commissioners were engaged early with the purpose and scope of the work. In addition, clinical and managerial commissioners were consulted with to identify what tools or supports were required locally.

These two processes contributed to the development of guidance that reflected the commissioner's needs, involved them in the development process and increased awareness, and so increased the likelihood of uptake of the commissioning guidance.

Tips on working with commissioners

- Ensure clarity regarding the level of commissioner the work is targeting (e.g. clinical or managerial commissioning).
- Establish the appropriate pitch for the commissioner audience, being aware that recommendations will need to be tailored to the specific context and existing service arrangements. A balance will be required between high-level plans and overly detailed proposals. The feasibility of any proposed changes in current service arrangements should be considered.
- Engagement and communication with clinical staff is valued. However, the effectiveness of interactions with clinicians will be improved if clinicians are aware of the commissioning landscape (e.g. current goals and constraints in commissioning).
- Ideally, frame commissioning requests explicitly in the language and context of higher-level commissioning goals, requirements or standards that have been laid down centrally (e.g. the 'health and well-being gap', 'care and quality gap', 'finance and efficiency gap').
- When framing and delivering commissioning requests (or discussions), be aware of the planning cycles and planning-guidance requirements placed upon commissioners, including national policy (e.g. the Five Year Forward View and Five Year Forward View for Mental Health).
- Provide clear and concise guidance that identifies where the suggested improvements are supported by an evidence base and outline this evidence base.
- The level of evidence required for a proposal for a service change or intervention is notably less than in academia. The absence of a randomised, controlled trial or meta-analysis is not necessarily a barrier to the uptake of a suggested intervention or service model, if the suggestion is in keeping with overall commissioning objectives. Cost-effectiveness and delivery of improved value is a priority goal. An explicit statement of the predicted impact of a service change on patient outcomes should be made, regardless of the cost impact.
- Engagement with, and support for, an intervention is likely to be increased if a clear plan is proposed and the implications for commissioning goals are made explicit.
- Engagement strategies should use a bottom-up and top-down approach as appropriate to the seniority of the commissioner. Early engagement is important. Strategic clinical networks provide information, support and proximity to commissioners across a region and direct access to commissioning networks.

Appendix 3.

Recommended medical equipment for psychiatric wards

- Alcometer
- Disposable gloves
- Examination couch
- Height measure
- Neurological testing pins
- Ophthalmoscope/auroscope
- Oximeter
- Snellen chart
- Sphygmomanometer
- Stethoscope
- Tendon hammer
- Thermometer
- Tuning fork (256 Hz)
- Urinalysis sticks
- Weighing scales

From: Garden (2005).

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Other resources

Healthy London Partnership
(<https://www.myhealth.london.nhs.uk/healthy-london>)

Mental Health Partnerships
Public Health England and NHS England are working together to establish a single shared network (<http://mentalhealthpartnerships.com/network/mental-health-intelligence-network>)

NHS England – Improving the Physical Health of People with Serious Mental Illness: A Practical Toolkit
This resource is based on the independent evaluation by the Royal College of Psychiatrists of four NHS England pilot sites that have been working in this area (<https://www.england.nhs.uk/mentalhealth/wp-content/uploads/sites/29/2016/05/serious-mental-hlth-toolkit-may16.pdf>)

Public Mental Health Leadership and Workforce Development Framework
A framework to inform and influence leadership and the workforce about mental health. (<https://www.gov.uk/government/publications/public-mental-health-leadership-and-workforce-development-framework>)

Rethink Mental Illness
Physical health resources for people using mental healthcare services, for carers and healthcare professionals, including a CQUIN toolkit, eLearning package and a good health guide. (<https://www.rethink.org/about-us/health-professionals/physical-health-resources>)

Royal College of Psychiatrists
The College's website on improving physical health with links to useful resources. (<http://www.rcpsych.ac.uk/mentalhealthinfo/improvingphysicalandmh.aspx>)

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