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# PHARMACY FOR HEALTH

THE WAY FORWARD FOR PHARMACEUTICAL  
PUBLIC HEALTH IN SCOTLAND



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## FOREWORD

Improving the health of the people of Scotland is at the heart of the Scottish Executive's agenda. "The Review of the Public Health Function in Scotland" recognised the health improvement role of pharmacists in providing safe and effective pharmaceutical care, and fostering health promotion and disease prevention. "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland", outlined the ways in which pharmacists and the Scottish Executive will work with key stakeholders to improve the public's health, provide better access to care, deliver better quality services for patients, users and carers, and develop the pharmaceutical profession.

"Pharmacy for Health: The Way Forward for Pharmaceutical Public Health in Scotland" acknowledges the valuable contribution to public health made by pharmacists in the many organisations

and settings in which they work. It explores the numerous opportunities to develop and enhance the profession's involvement in delivering the health improvement agenda through the efforts of pharmacists working in the community and in hospitals, and of specialists who work within multi-disciplinary public health teams.

"Pharmacy for Health" emphasises the need for pharmacists to work with the people they serve, statutory and voluntary agencies, and other health care professionals to ensure that their knowledge and skills are deployed to best advantage. It builds on and complements "The Right Medicine", taking forward the development of the profession to benefit the people of Scotland. The recommendations are challenging, but must be pursued to ensure pharmacy plays its full part in improving Scotland's health.



**Mr W Scott**  
Chief Pharmaceutical Officer,  
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## PREFACE

The publication of this report is part of a process which is revolutionising the contribution of the pharmacy profession to the overall challenge of improving health in Scotland. Gone are the days when decisions about health are left in the hands of a few experts and then passed on to a passive population. People today are much more aware of the factors that determine their own health and use multiple sources of information and support to maintain their individual and family health over a lifetime. Pharmacists are a key resource in this process, particularly in settings such as community pharmacies.

Pharmacists have always been a ready and accessible source of medicines and advice about medicines but the potential to make them a focus of activity that enhances health is already being realised by the pioneers in this field and will soon become the norm.

There has also been a major change in the approach to health improvement within Scotland. The key to this is partnership working and engagement with the public. Pharmacists have a significant role to play in these health improvement processes at local, regional and national level.

This report highlights the many and varied ways that pharmacists can move towards a more strategically important role. It is my belief that the report will be highly influential in moving rapidly towards this exciting future.



Professor Phil Hanlon

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## ABBREVIATIONS

ADTCs	Area Drug and Therapeutics Committees
ASTCP	Association of Scottish Trust Chief Pharmacists
CHD	Coronary Heart Disease
CPD	Continuing professional development
CRAG	Clinical Resource and Audit Group
CSBS	Clinical Standards Board for Scotland
FPHM	Faculty of Public Health Medicine
GP	General Practitioner
HEBS	Health Education Board for Scotland
HTBS	Health Technology Board for Scotland
ISD	Information and Statistics Division
IT	Information technology
LHCC	Local Health Care Co-operative
MPH	Master of Public Health
MRPharmS	Member of the Royal Pharmaceutical Society
NES	NHS Education for Scotland
NHS	National Health Service
NPA	National Pharmaceutical Association
NRT	Nicotine replacement therapy
OTC	Over the counter
PCTs	Primary Care Trusts
PHIS	Public Health Institute of Scotland
PHP	Public Health Practitioners (LHCC)
RPSGB	Royal Pharmaceutical Society of Great Britain
SCIEH	Scottish Centre for Infection and Environmental Health
SCPPE	Scottish Centre for Post Qualification Pharmaceutical Education
SEHD	Scottish Executive Health Department
SHOW	Scotland's Health on the Web
SMC	Scottish Medicines Consortium
SNAP	Scottish Needs Assessment Programme
SPGC	Scottish Pharmaceutical General Council
SSIppH	Scottish Specialists in Pharmaceutical Public Health
STI	Sexually transmitted infection

PHARMACEUTICAL PUBLIC HEALTH – “THE APPLICATION OF PHARMACEUTICAL KNOWLEDGE, SKILLS AND RESOURCES TO THE SCIENCE AND ART OF PREVENTING DISEASE, PROLONGING LIFE, PROMOTING, PROTECTING AND IMPROVING HEALTH FOR ALL THROUGH ORGANISED EFFORTS OF SOCIETY.”\*

EXECUTIVE SUMMARY

Scotland's health has improved over the last century but life expectancy is still poor compared with most other northern European countries and with all other parts of the United Kingdom. There is agreement that the capacity and skills of the growing public health workforce need to be developed to realise Scotland's health improvement targets. Every health care contact has the potential to be a health promoting contact and partnership working is the key to delivering a more holistic approach to health improvement. Pharmacists have an important contribution to make in this respect.

Although pharmacists are now recognised as public health practitioners, their public health role has not yet been fully developed. This report therefore addresses an unfulfilled potential. While the main emphasis is on the role of community pharmacists in health improvement, the report recognises the many public health roles of pharmacists in diverse settings. It discusses how the current contribution of pharmacists to public health can be developed to meet this wider public health agenda. It aims to complement and build on the main health improvement messages of “The Right

Medicine: A Strategy for Pharmaceutical Care in Scotland”, through a discussion of the key ingredients of pharmaceutical public health. Four themes have been used to present areas of priority and ways of working in relation to pharmaceutical public health:

- Health improvement
- Networks
- Skills development
- Evidence-based practice

Recommendations have also been organised under these themes in order to present priorities in a clear and systematic manner.

A key message of this report is that pharmaceutical public health is not the exclusive domain of a small number of ‘specialists’ working in an NHS Board or academic department. Neither is the community pharmacy the only setting where meaningful public health activity can take place. In contrast, public health roles can extend across the breadth of the profession – the challenge is to mobilise the full potential of pharmacists, such that their diverse skills and experience can combine to achieve health gain in many different settings.

\*Walker, R. Pharmaceutical public health: the end of pharmaceutical care? *The Pharmaceutical Journal* 2000;264:340-341.



## SUMMARY OF RECOMMENDATIONS

### HEALTH IMPROVEMENT

#### Pharmacy Premises

1. A community pharmacy modernisation programme should be supported throughout Scotland to promote pharmacies as centres for public health advice and information.

#### Public Health Information

2. Electronic health information points should be established in community pharmacies, badged under the NHSScotland logo, to increase public access to current, quality assured health information.

#### Improving Access

3. A needs assessment tool kit should be developed for 'out of hours' pharmaceutical services to enable Primary Care Trusts and Local Health Care Co-operatives to quantify existing provision and evaluate future needs.
4. NHSScotland and local authorities should work through community planning partnerships to support a health improvement role for all community pharmacies, particularly in areas of rural and urban deprivation.
5. Prescribing of medicines by pharmacists should be extended to a wider range of clients and clinical indications.

#### Child Health

6. A strategy should be developed to improve the pharmaceutical care of children of all ages, in line with national initiatives.

#### Health Promotion

7. The practice of health promotion in community pharmacy should become a focus for the Model Schemes for Pharmaceutical Care, to promote a consistent approach to 'near patient testing' and advice on lifestyle factors determining health.

### NETWORKS

#### Specialist Pharmaceutical Public Health Advice

8. NHSScotland and other statutory and voluntary organisations need access to specialist pharmaceutical public health advice. New ways of networking and co-ordination should be explored to increase the availability of 'intelligence' on pharmaceutical public health priorities.

#### Voluntary/Consumer Groups

9. A working partnership should be developed between the pharmacy profession and the voluntary sector in Scotland, to include a system of information exchange which facilitates client referral to and from community pharmacies.

#### Local Health Care Co-operatives

10. An appraisal should be completed on options for the development of pharmaceutical public health capacity within the Local Health Care Co-operatives.

### SKILLS DEVELOPMENT

#### Undergraduate Teaching

11. The public health component of pharmacy undergraduate degrees should be reviewed to ensure inclusion of the core competencies for the public health agenda and to provide a foundation for scientific and clinical teaching.

#### Postgraduate Education and Training

12. A framework for professional development in public health, which recognises the needs of pharmacists and introduces pharmaceutical public health to the wider public health workforce, should be developed and integrated into continuing professional development programmes.

#### Public Health Specialists

13. A needs based programme for Specialist Registrars in Pharmaceutical Public Health should be considered as part of the proposed framework for non-medical specialists currently being developed by NHS Education for Scotland.

#### Pharmacy Technicians and Support Staff

14. Education and training programmes for technicians and other support staff, in hospital and community pharmacy, should be revised to include public health principles and practice.

### EVIDENCE-BASED PRACTICE

#### Needs Assessment

15. The priority topics for pharmaceutical service needs assessment should be identified, together with an agreement on timetable, responsibilities and implementation.

#### Public Health Data and Information

16. A pharmaceutical public health dataset should be developed, to inform aspects of pharmaceutical care at a population level, guide planning of local services and add value to the evolving core public health dataset.
17. Pilot studies should be supported on the feasibility of using community pharmacy “spotter practices” to highlight trends in medicines utilisation and requests for information and advice as markers of particular public health problems.

#### Health Protection

18. There should be provision within NHSScotland for pharmacists to supply selected medicines, condoms and other items for health protection.
19. The pharmacy profession should establish a formal link with the Scottish Centre for Infection and Environmental Health, to address joint responsibilities highlighted in the Scottish Executive Health Department ‘Antimicrobial Resistance Strategy and Scottish Action Plan’.

#### Harm Reduction

20. National guidance should be developed for the provision of harm reduction services through pharmacy, building on the success of existing programmes in drug misuse and extending to meet the needs of those who misuse alcohol and other substances.

#### Sexual Health

21. Within a multi-disciplinary framework, the community pharmacist should be recognised as a source of advice on sexual health and should become an authorised NHS prescriber for the contraceptive pill and emergency contraception.

#### Cost-effective Prescribing

22. NHS Boards and Trusts should review communication arrangements to ensure that hospital and community pharmacists can fully support implementation of Scottish Medicines Consortium recommendations.

#### Emergency Planning

23. NHS Boards should review how the skills and resources of pharmacists might be best utilised in emergency planning.

## BACKGROUND TO THE REPORT

The Chief Medical and Pharmaceutical Officers (Scotland) commissioned this report to highlight some of the main areas where pharmacists have already made a significant contribution to health improvement and to identify opportunities for further development of pharmaceutical public health. The report aims to build on the key health improvement messages of “The Right Medicine: A Strategy for Pharmaceutical Care in Scotland” 2002.<sup>1</sup>

A small editorial group comprising representatives from the Scottish Specialists in Pharmaceutical Public Health group (SSiPPH) and the Public Health Institute of Scotland (PHIS) has been responsible for the production of this report in consultation with a broad, multi-disciplinary Reference Group (see Appendix 1 for a list of members). A wider consultation has also

taken place to obtain feedback from a range of individuals and organisations on the final draft report. The aim of this process has been to allow participation in the development of the report across different agencies and groups, to promote a sense of ownership amongst those contributing, to identify issues of concern to relevant groups and to create a final report, responsive and relevant to the needs of its target audience, namely those working in a public health capacity within the statutory, voluntary or community sector.

Partnership working now involves real engagement with others in the delivery of a more holistic public health programme for Scotland. This report intends to capitalise on this developing and dynamic agenda by highlighting the contribution that pharmaceutical public health can make to health improvement.

# 1

## CHAPTER ONE

### Pharmaceutical Public Health – Its Place in Health Improvement

THIS CHAPTER OUTLINES:

- Recent developments in public health in Scotland
- Pharmaceutical public health within different organisations and settings
- Public health education and training for pharmacists



### 1.1 RECENT DEVELOPMENTS IN PUBLIC HEALTH IN SCOTLAND

Scotland's health has improved over the last century but life expectancy is still poor compared with most other northern European countries and with all other parts of the United Kingdom.<sup>2</sup> Patterns of inequality and social exclusion persist. The Scottish Executive is committed to a multi-agency approach in working towards health improvement and the reduction of health inequalities, emphasising the role of national, regional and local partnerships to improve physical, mental and social well-being, and quality of life.<sup>3</sup>

A new, unified NHS is resulting in greater co-operation and collaboration with other agencies, including a joint approach to local health and community planning. Resources are now being allocated across traditional public sector boundaries and there is greater public involvement in service planning and delivery.<sup>4</sup>

A public health workforce that is 'fit for purpose' has become a priority to achieve Scotland's health improvement targets.<sup>5</sup> Evidence-based practice, professional standards and professional development are ingredients of this move towards a more holistic way of working.

Pharmacists have been involved in health improvement since the early 19th century<sup>6</sup> but their advisory role has largely focused on prescribed and 'over the counter' (OTC) medicines, specific advice on the management of common illnesses and general advice on healthy

lifestyles. "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland",<sup>1</sup> launched in February 2002, recognises the potential of pharmacists to work in a more structured, integrated way to improve health, prevent disease and protect the public while continuing to promote the safe and effective use of medicines.

Every health care contact has the potential to be a health promoting contact and partnership working is the key to delivering a more holistic approach to health improvement. Pharmacists have an important contribution to make in this respect.

### 1.2 PHARMACEUTICAL PUBLIC HEALTH WITHIN DIFFERENT ORGANISATIONS AND SETTINGS

The Scottish Health Plan, "Our National Health: A plan for action, a plan for change",<sup>7</sup> set out the new environment for the creation of more holistic and responsive services to improve health. This Plan underlines the need for pharmacists to focus on health improvement, working in partnership with colleagues and taking a population approach as well as supporting individual needs. Other important policy documents such as "Nursing for Health",<sup>8</sup> "The Review of the Public Health Function"<sup>5</sup> and "Building on Success"<sup>9</sup> reflect a commitment to reviewing and shaping the public health workforce to make a real impact on improving health in Scotland (see Chapter 2 for detail on the policy context).



Pharmacists work in a broad range of settings and roles in the public, commercial and academic sector, as outlined below, but commitment to the safe and effective use of medicines is common to all. Pharmacists are increasingly aware of the many factors that affect health and the need to broaden their approach and work with others to achieve health improvement.

Every pharmacist and pharmacy must be registered with the Royal Pharmaceutical Society of Great Britain (RPSGB), the body that regulates the profession and pharmacy premises. It maintains the profession's Code of Ethics, including standards of professional practice and standards for relationships with patients and the public, including confidentiality.

Pharmacists play an important part in protecting the public by implementing the legal framework that controls the availability and use of medicines and poisons. Pharmacists also highlight adverse drug reactions by sending 'Yellow Card' reports to the Committee on Safety of Medicines. In this way, emerging trends for both new and established medicines can be established. "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland" has identified the need for a Scottish Centre for Adverse Drug Reactions.<sup>1</sup> This presents an opportunity to build a local database, from which potential links between prescribing data, population demographics and adverse effects to medicines can be analysed.

## PRIMARY CARE

### Community Pharmacies

An 'average pharmacy' serves a diverse population of around 4,500 people, including:<sup>10</sup>

- 1,000 people with chronic diseases, such as asthma, diabetes and hypertension
- 1,000 smokers
- 750 elderly people and 600 carers
- 200 people with physical or mental disability
- 300 children under 5
- 50 pregnant women
- 20 people suffering from cancer, of whom four are receiving active treatment and care
- 6 drug misusers
- 2 people with HIV/AIDS.

No appointment is needed for routine advice from a community pharmacist. Most pharmacies are open at least six days per week with many providing services over lunchtime, after normal working hours and at weekends. It is estimated that 600,000 Scottish people visit a community pharmacy daily,<sup>1</sup> 67% of the Scottish population monthly and 94% at least once a year. Each day in Scotland, community pharmacists dispense around 190,000 general practitioner (GP) prescriptions.

Pharmacists support healthy people as well as those with existing health problems. Their daily contact with members of the public through requests for advice and supplies of medicines and other health related products provides opportunities to deliver health



information and promote healthy lifestyles on a wide range of issues including: contraception and sexual health, oral health, and smoking cessation.

Additional community pharmacy services include:

- Treatment of minor ailments by recommending OTC medicines
- Advice on effective use of medicines, their safe handling and disposal
- 'Near patient' testing facilities for screening, diagnosis, disease monitoring, and treatment evaluation
- Extended services to minimise harm from drug misuse
  - Supervised consumption of methadone
  - Needle/syringe exchange programmes
  - Information/education on the risks arising from drug misuse, in collaboration with other NHS disciplines, drug and social workers, and voluntary agencies
- Domiciliary services, supplying oxygen and other medicines.

People value the services provided by their local pharmacy. In 2001, a community pharmacy user satisfaction survey was conducted in NHS Greater Glasgow.<sup>11</sup> Of the 581 customers across forty different pharmacies who responded to a questionnaire, 98% rated community pharmacy services as 'good' or 'very good'; 67% were given advice by the pharmacist and of these, 95% were satisfied with the quality and clarity of this advice. While traditional dispensing services were most used, there

was also wide acceptance of 'extended roles' in health promotion and health improvement. For example, 88% supported the provision of smoking cessation services through community pharmacy.

Research has shown that members of the public prefer discrete, semi-private facilities in pharmacies when they are receiving advice from pharmacists,<sup>12</sup> though a recent report to the Scottish Executive Health Department (SEHD) identified that only 32% of customers sampled felt negative or uncertain about confidentiality.<sup>13</sup> The issue has been addressed in recent years by the provision of consultation areas in pharmacies, some of which have been funded through NHS Board and SEHD initiatives. There is, however, scope to extend such arrangements to all pharmacies.

Since 1993, a core requirement of the professional allowance in community pharmacy has been 'to set aside areas for displaying health education material.' More recently, several model 'health promoting' pharmacies schemes have established consulting rooms which provide complete privacy, if required, for pharmacists and other health care professionals to utilise. Some model pharmacies are also using various innovative communication technologies such as computer-based, touch screen health information systems.

Community pharmacists are involved in chronic disease management, working with primary care prescribers to promote

the implementation of local protocols for best practice, especially where national or local clinical guidelines are well established. Guidelines that have major potential to improve public health include those for asthma, heart failure, hypertension, peptic ulcer disease, diabetes, and coronary heart disease (CHD). There is scope for this role to be developed systematically as information technology (IT) systems develop the capacity to link information on care provided by different NHS professionals. Pilot schemes are underway for community pharmacists to monitor treatment via repeat dispensing systems and the statutory framework is in place for pharmacists to become 'supplementary prescribers' in the near future.<sup>14</sup>

Clearly, there are opportunities for community pharmacists and their staff to play a public health role across a range of national priorities. Services can

be tailored to meet the needs of the local population, irrespective of the pharmacy location – high street, supermarket, inner-city, or rural.

#### Working with GP Practices

Prescribing is the most common therapeutic intervention in primary care. The range and complexity of new medicines continues to expand. The process of prescribing therefore requires ever more care and attention to maintain the delivery of high quality treatment, whilst optimising the use of GP time and other NHS resources.

Pharmacists work with GP practices to promote cost-effective prescribing, conduct individual medication reviews, provide chronic disease management clinics and facilitate development of the pharmacy role in the primary health care team.

'Prescribing Support' can be defined

#### Recent examples of good practice in community pharmacy:

- The 'Direct Supply of Medicines' projects in Arbroath and Patna have introduced community pharmacist prescribing of selected medicines on the NHS to those clients normally exempt from prescription charges. This has helped to improve access to NHS services and ease the workload of GPs and nursing colleagues.<sup>1</sup>
- An innovative scheme in NHS Fife has demonstrated the benefits of 'direct NHS supply' of emergency contraception through community pharmacies, as part of a multi-disciplinary community family planning network.<sup>15</sup> There have been high levels of uptake of this service as well as high levels of client satisfaction, with positive feedback on accessibility, confidentiality, and privacy.
- A pilot study in Glasgow, which focused on the supply of products for the management of head lice, demonstrated: improved access to treatment and improved treatment outcomes; reduced GP workload; reduced frequency of medicine supply and no increase in overall NHS costs.<sup>16</sup>





as the use of additional professional input into one or more elements involved in the prescribing process. Pharmaceutical prescribing advisors have worked in NHSScotland for the last ten years, supporting GPs to promote high quality, cost-effective medicine use and improve the pharmaceutical care of patients. NHS resources can, therefore, be used more effectively and practices operate with greater efficiency.

Prescribing support services can be

categorised into three broad areas, as shown in Table 1.

There will be an increasing need to demonstrate cost-effective prescribing across Scotland, with greater collaboration between primary and secondary care. Managing the entry of new drugs into the NHS will require co-operation between clinicians, other professionals and managers in primary and secondary care on a larger scale than that at present.

TABLE 1: Prescribing Support Services

Type of Support	Examples
Clinical Prescribing Support	<ul style="list-style-type: none"><li>• Medication review clinics</li><li>• Chronic disease management, including nurse or pharmacist-led anticoagulant, pain and migraine clinics; these can improve continuity of care and patient convenience</li><li>• Audits of clinical practice</li></ul>
Services Supporting Prescribing Policies, Procedures and Analyses	<ul style="list-style-type: none"><li>• Scottish Prescribing Analysis report</li><li>• Generic prescribing</li><li>• Formulary development</li><li>• Reviews of repeat prescribing systems</li><li>• Nationally or locally developed guidelines can be adapted for use in an individual practice or locality</li></ul>
Support on Prescribing Issues and Policy at the Interface between Practices, Local Health Care Co-operatives, Primary Care Trusts and Hospitals	<ul style="list-style-type: none"><li>• Developing areas of commonality between the hospital formulary and GP prescribing</li><li>• Improving pharmaceutical care by reviewing admission and discharge procedures</li><li>• Developing shared care guidelines</li></ul>



### Local Health Care Co-operatives

Each of the 83 Local Health Care Co-operatives (LHCCs) across Scotland is a voluntary network of general practices responsible for managing and delivering integrated services across defined natural communities. LHCCs now play an important role in the planning and delivery of health improvement and health care at the local level. There is a drive to improve joint working and communication between community and hospital pharmacists and with other professionals in LHCCs. "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland" states:

"Pharmacists in an LHCC area need to be able to work together to deliver seamless pharmaceutical care and to ensure equity of access to current and future services. This requires effective communication, both between hospital and community pharmacists and with the other disciplines in the LHCC."<sup>1</sup>

To facilitate this, Pharmacy Locality Groups will be formed, comprising all community pharmacists within the LHCC boundary and associated hospital pharmacists. This will provide the essential platform for partnership within the pharmacy profession and act as a catalyst for the wider partnerships necessary to deliver the public health agenda.

Each LHCC has access to an LHCC Public Health Practitioner (PHP) to lead the priorities for health improvement. It is essential that pharmacists link with PHPs to respond to local priorities and develop a complementary public health

role. Community pharmacists are already involved in this process, but there is scope for greater integration.

### HOSPITALS

The core functions of the hospital pharmacy service are described in the "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland".<sup>1</sup> Hospital pharmacists provide treatment and care to patients with complex medical problems and pharmaceutical care needs. There are various circumstances where hospital pharmacists routinely contribute to the public health agenda:

- Promoting evidence-based medicine through Drug and Therapeutics Committees/Medicines Information Departments
- Developing systems for clinical effectiveness and cost-effectiveness of medicines thereby promoting good prescribing practice e.g. with antimicrobials
- Developing systems to ensure the safe handling of medicines, such as cancer chemotherapy and other high risk agents, and to reduce medication errors
- Working with patients to support them with the management of their medicines, including self administration programmes
- Responding to the pharmaceutical needs of patients requiring specialist care e.g. in cancer, palliation, and drug misuse
- Discharge planning to promote the safe



and effective use of medicines in the community, including communication systems for robust information transfer

- Support for patients in cardiac rehabilitation, including initiation of nicotine replacement therapy
- Management of the childhood vaccine supply chain.

The development of safe, contemporary systems for medicines management is a priority for hospital pharmacy. The Audit Commission (England & Wales) recently reported a five-fold increase in the number of deaths attributable to the adverse effects of medicines in NHS hospitals in the past ten years.<sup>17</sup> Local and national initiatives are underway to improve the NHS response to medicine misadventures, in line with Department of Health recommendations.<sup>18</sup> The majority of medication errors could be avoided by the adoption of effective systems for electronic prescribing and medication record keeping.

#### NHS BOARDS

Pharmacists working in Public Health Departments in NHS Boards provide professional leadership across a multi professional network. An important part of their role is to ensure that strategies for pharmaceutical care meet the needs of patients in terms of both quality and service development, whether the care is delivered by pharmacists, nurses, doctors or care staff. They co-ordinate action on pharmaceutical developments and

contributions to health plans in areas including health promotion and drug misuse. They also support plans to improve patient care and the effective use of medicines within current professional and legal standards.

Local Health Plans promote integration of health care developments through joint planning and resource sharing with local authorities, other local organisations, the voluntary sector and the community. This encourages a shared approach to planning and delivering the pharmaceutical public health agenda. Local authorities, in collaboration with NHS Boards and other partners, now produce a Community Plan which includes health improvement and may address issues such as drug misuse programmes, medicines in schools and access to community pharmacy services.

Medicines account for a significant proportion of NHS resources. Reasons for this include greater spending on disease prevention, the high cost of new products and innovation for previously untreatable diseases, the demands of an ageing population and greater public expectations. The need for evidence-based care and the efficient use of resources is greater than ever. Pharmacists working in Boards co-ordinate pharmaceutical intelligence on new drugs and the development of policies and systems to ensure that evidence-based guidance is implemented.

### HEALTH EDUCATION BOARD FOR SCOTLAND (HEBS)/PUBLIC HEALTH INSTITUTE OF SCOTLAND (PHIS)

HEBS and PHIS are national bodies that lead and support health improvement across Scotland. Given the imperative to develop a cross cutting health improvement action plan for Scotland, HEBS and PHIS are in the process of 'coming together' to become one integrated organisation. There are already well-established working links between HEBS, PHIS and the pharmacy profession. The new integrated organisation will allow further opportunity to build on and develop these networks and relationships.

The Health Promoting Health Service Framework, co-ordinated by HEBS, is a practical tool which facilitates a greater emphasis on the population health improvement role of the health service. The framework is designed to integrate health promotion into the work of all NHS organisations, providing an opportunity for improved communication and collaboration between different health settings and occupations. Pharmacists and other professional groups can make use of this framework to develop the health promoting aspects of their work.

### NHS EDUCATION FOR SCOTLAND (NES)

NHS Education for Scotland was established as a Special Health Board on 1st April 2002. Its aim is, "To contribute to the highest quality of health care in NHSScotland by promoting best practice in the education and lifelong learning of all

its staff". It incorporates the Scottish Centre for Post Qualification Pharmaceutical Education (SCPPE), the Director and Assistant Director of which are based in the University of Strathclyde. SCPPE provides, through nineteen national and local pharmacist tutors, an education and training programme, which includes face-to-face courses, distance learning, video conferencing, open learning opportunities and specially commissioned courses for hospital and community pharmacists working within NHSScotland, by a number of different methods to allow maximum flexibility and contact.

### NHSSCOTLAND QUALITY IMPROVEMENT

This new Special Health Board, due to be established in early 2003, brings together the Clinical Standards Board for Scotland (CSBS), the Health Technology Board for Scotland (HTBS), and the Scottish Health Advisory Service. The Board will also incorporate the Clinical Resource and Audit Group (CRAG) and will work closely with a range of others. Pharmacists in member organisations of this new Board already make a valuable contribution to quality improvement, promoting evidence-based practice and compliance with guidelines/standards.

- HTBS currently provides evidence-based advice to NHSScotland on the clinical and cost-effectiveness of new and existing technologies including medicines. One of its key functions is health technology assessment, a scientifically robust analysis of the



- ethical, social, medical and economic impacts of using health technologies in Scotland. This is an inclusive process that uses multi-disciplinary expert groups, including pharmacists, to synthesise the evidence from published literature, manufacturers, professionals and patient groups.
- CSBS runs a national system of quality assurance and accreditation of clinical services in partnership with healthcare professionals and members of the public, defines standards for clinical services and assesses performance throughout NHSScotland against these standards. Pharmacists make an important contribution to ensuring that national clinical standards are developed and met within NHSScotland.

#### INFORMATION AND STATISTICS DIVISION SCOTLAND (ISD)

Data on the dispensing of NHS prescriptions is routinely collected by the Primary Care Information Group of ISD whose role includes analysis of information on prescribing and pharmacy from a national and local perspective. The data held by ISD which can inform pharmaceutical public health include: the number of pharmacies and registered pharmacists in Scotland, the number of prescriptions dispensed by pharmacists with associated costs at national and NHS Board level as well as details of the prescribing of individual medicines by cost and volume.

Pharmacy related projects include examining the potential influences on

prescribing trends of factors such as technological change (the introduction of new products), price and volume increases. There is great potential to explore how public health and epidemiology affect prescribing data (and vice versa).

#### NHS 24

NHS 24, to be fully operational by Summer 2003, is a Special Health Board within NHSScotland offering 24 hour telephone access to nurse consultation and health information including service availability, such as the nearest pharmacy location.<sup>19</sup> A pharmacy advisor has been appointed by NHS 24 to provide relevant input into strategy and policy development and to foster a close working relationship with the pharmacy profession, including advice on appropriate referrals to community pharmacists.

#### THE SCOTTISH PRISON SERVICE

The Scottish Prison Service provides primary care services to prisoners and young offenders in the fifteen directly managed establishments. It aims to provide access to the same quality and range of health services that are available in the community. Many prisoners have experienced a lifetime of social exclusion; over 70% of people entering prison are drug users and many have complex mental and physical health problems, but have had limited contact with community based health services. The comprehensive pharmacy service ensures that medicines are

managed safely and securely, and that professional information and advice is available to other members of the health care team and to prisoners. Prisoners are helped to take responsibility for their own medication and encouraged to reduce health risks and adopt healthier lifestyles, e.g. through smoking cessation. Improving the health of this particularly disadvantaged population has a direct effect on individual prisoners and a wider impact on their families and communities by reducing the risks of re-offending and of the spread of communicable diseases.

#### THE SCOTTISH EXECUTIVE

Pharmacists in government departments and agencies are central to the formulation and implementation of health care policy, strategies and legal frameworks. The Chief Pharmaceutical Officer's team based in the Scottish Executive has a key strategic role in the development and implementation of pharmacy policy, in collaboration with a range of groups and organisations. The SEHD has responsibility for the creation and implementation of health policy encompassing prevention, protection, treatment, rehabilitation and palliative care. Elements of pharmaceutical public health feature in all aspects of this policy.

#### ACADEMIA AND INDUSTRY

Academic pharmacists contribute to the pharmaceutical knowledge base through scientific and practice-based research. They also play an integral part in dissemination

of knowledge through teaching at undergraduate and postgraduate levels.

In the pharmaceutical industry, pharmacists are involved at all stages in the development of new medicines, from research and evaluation, through production, quality assurance, regulatory affairs, information services and pharmaco-vigilance. The United Kingdom licensing process ensures that medicines are of high quality, and that health care professionals and patients have access to appropriate information on their effective and safe use.

#### 1.3 PUBLIC HEALTH EDUCATION AND TRAINING FOR PHARMACISTS

All pharmacists initially complete a four-year honours degree (Masters/Bachelor of Science in Pharmacy) – this will typically address the basic principles and practice of public health. Membership of the Royal Pharmaceutical Society of Great Britain (MRPharmS) requires successful completion of an examination at the conclusion of a one-year pre-registration training programme. Thereafter, the Society recommends a minimum of thirty hours of postgraduate continuing education each year. SCPPE has helped pharmacists to meet this target by offering a range of health promotion and public health topics, in direct and distance learning format. The integration of SCPPE into NES will enhance the multi-disciplinary approach to education and training for all NHS staff, including public health topics.

A Masters in Public Health (MPH)





remains the principal option for pharmacists who want to undertake formal, structured education to support a public health specialist role. PHIS and NES are currently working with the wider public health community to review the MPH programmes and introduce a more flexible 'Masters' course. This will provide opportunities for all disciplines to share core modules, before choosing relevant 'option' modules which may include pharmaceutical public health. The development of a pharmaceutical public health module would allow larger numbers of pharmacists to access this on a 'stand alone' basis for continuing professional development (CPD) purposes. The Faculty of Public Health Medicine (FPHM) is also opening up its CPD and registration process to a range of other disciplines including pharmacy. There is evidence to suggest that providing a structured training programme in health promotion for community pharmacists improves and expands their knowledge base, attitudes and participation in health promotion activity.<sup>20</sup>

Support staff in community pharmacies also contribute to health promotion. While technicians attain the Scottish Vocational Qualification level 3 to dispense medicines under the supervision of a pharmacist, all counter assistants should be competent in the provision of information on selected health topics and OTC medicines. Some Boards offer dedicated training programmes for support staff on

selected aspects of health promotion, to complement the pharmacist's role.<sup>21</sup> Prompted by the "The Right Medicine: A Strategy for Pharmaceutical Care in Scotland",<sup>1</sup> the public can expect in future to find more specially trained technicians in community pharmacies performing a variety of new roles in patient education and health promotion.

#### 1.4 CONCLUSION

Pharmacists have been public health practitioners since the profession was established in 1841. Whether working in the community, in hospital or another specialty, pharmacists can contribute in a wide variety of ways to the public health agenda in addition to their well-established role in the provision of medicines. Until recently, there has been little formal recognition or co-ordination of this public health role, either within or beyond the profession.

While the basis for pharmaceutical public health is strong, pharmacists remain an under-utilised public health resource. Current national policies and the new ethos of NHSScotland have created opportunities to develop public health practice across traditional boundaries and have strengthened the resources to tackle Scotland's targets for health improvement. It is now time to bring pharmaceutical public health into the picture. The following chapters will outline key areas of priority and recommendations.

# 2

## CHAPTER TWO Framework And Context For Public Health Policy

THIS CHAPTER PROVIDES AN OVERVIEW OF THE  
POLICY CONTEXT IN NHS SCOTLAND AND  
SUMMARISES POLICY STATEMENTS FOR:

- Public health
- Reorientation of services



# 2



## 2.1 PUBLIC HEALTH

“Collective effort and collective responsibility – that is the challenge that we all face...Not bottom-up or top-down, but both simultaneously.”<sup>22</sup>

This statement encapsulates the current Scottish climate in policy making across the major sectors. The following resumé of important policy documents and legislation which impact on the health sector also reflects this holistic and inclusive approach.

### Towards a Healthier Scotland<sup>3</sup>

Setting out the Government’s vision for improving the health of the Scottish population this Public Health White Paper signalled a departure from the concept of NHSScotland existing only to treat illness and acknowledged the association between ill health and deprivation. It proposed that health improvement requires making a lifelong difference to the health and lives of the whole population with action at three levels: life circumstances, lifestyles and health topics. It recognised the multi-dimensional nature of health and acknowledged that tackling health inequalities should underpin every policy and programme affecting health.

### Review of the Public Health Function in Scotland<sup>5</sup>

This review, proposing significant changes in the public health structure and function, identified the need for

public health in Scotland to have greater coherence and stronger leadership. It suggested the establishment of a Public Health Institute to co-ordinate, facilitate and support this function, increase the impact of the collective endeavours of the Scottish public health community and create an intellectual focus for health improvement. Additionally, this Institute should support public health networks and strengthen research and teaching links between academic departments, NHS Boards and research units. In 2001 PHIS was created to meet this demand.

The review also highlighted the need for structured training for public health specialists and acknowledged that the workforce to deliver the public health function in Scotland is large, diverse and multi-disciplinary. With particular reference to professionals from backgrounds other than medicine or dentistry, it highlighted the importance of training needs, practice standards, professional development, salary structure and career pathway.

## 2.2 REORIENTATION OF SERVICES

### Our National Health: A plan for action, a plan for change<sup>7</sup>

A ‘Scottish Health Plan’ for NHSScotland. It set out the current situation within NHSScotland, identified core aims and described what needed to change and how. A key feature of the plan was the establishment of 15 Unified NHS Boards



to bring cohesion to the previous separate structures of NHS Boards and Trusts (Primary Care Trusts (PCTs) and Acute Hospital Trusts). Each Board is charged with producing a Local Health Plan linked to Local Authority Community Plans. Also emphasised is the need to simplify budgetary arrangements in local health systems to improve service provision. Partnership is key, with action points including a specific commitment to working with the pharmaceutical profession in Scotland to address manpower issues and to develop a Strategy for Pharmaceutical Care.<sup>1</sup>

**Rebuilding our National Health Service: A Change programme for implementing Our National Health: A plan for action, a plan for change<sup>4</sup>**

Realignment of NHSScotland took place in 2001 in line with the Scottish Health Plan. This document sets out the Government's thinking behind the reorganisation and lays out the action plan.

The overall purpose of the Unified Board structure is to ensure more efficient, effective and accountable governance of the local NHS system and to provide strategic leadership and direction for health improvement as a whole. Each Board's role is to:

- Improve and protect the health of local people
- Improve health services for local people

- Focus on health outcomes and people's experience of their local NHS system
- Promote integrated health and community planning by working closely with other local organisations
- Provide a single focus of accountability for the performance of the local NHS system.

NHS Boards are now public health organisations with explicit accountability for health improvement. The planning and development of primary and community services remains the responsibility of PCTs and LHCCs. Their goal is to promote locality based, joint working and service development bringing together professionals responsible for delivering front line services, strengthening and supporting practices in delivering care to local communities in line with their health needs. There are moves to increase the public health role of LHCCs and primary care; PHPs are now in post in most LHCCs.<sup>23</sup>

**The Right Medicine: A Strategy for Pharmaceutical Care in Scotland<sup>1</sup>**

Published in 2002, the strategy outlines how pharmacists and the Scottish Executive will work with key stakeholders to improve the public's health, provide better access to care, deliver better quality services and develop the pharmaceutical profession. It is an

# 2



agenda for the modernisation of pharmacy services. Its main aims and actions will be delivered through partnership within pharmacy, with other healthcare professions and with patients and the public. The priority themes include supporting patients to make the best and safest use of their medicines and recognising that in a wider public health role pharmacists: engage effectively with communities; provide a link between NHSScotland and the public; work to maintain, promote and improve health, as part of specialist public health practice; are hands-on public health practitioners within multi-disciplinary teams; have a focus beyond the use of prescribed medicines.

Specific recommendations will enhance the public health role of the pharmacy profession, for example:

- NHS Boards and LHCCs should ensure that they have access to pharmaceutical public health advice
- HEBS and local health promotion units will include community pharmacies in campaigns, activities and initiatives as part of a multi-disciplinary approach to health promotion
- Pharmacists will work to review and monitor guidelines on antibiotic prescribing
- The SEHD and NHSScotland will continue to develop the network of community pharmacies as walk-in healthy living centres.

The potential for the use of IT in

maximising pharmacy's contribution to public health is also identified, including the connection of community pharmacies to the NHS net, development of standards for electronic prescribing in hospital and customer use of computers for access to health related information in community pharmacies.

## 2.3 CONCLUSION

Recent policies have reoriented NHSScotland, both in terms of structure and function, towards a true multi-agency approach to health improvement. Pharmaceutical public health has a clear place within this new framework to support the themes and strategies underpinning the current health improvement priorities.

# 3

## CHAPTER THREE Key Themes

THIS CHAPTER DISCUSSES KEY THEMES AND WAYS OF WORKING IN RELATION TO PHARMACEUTICAL PUBLIC HEALTH:

- Health improvement
- Networks
- Skills development
- Evidence-based practice

# 3

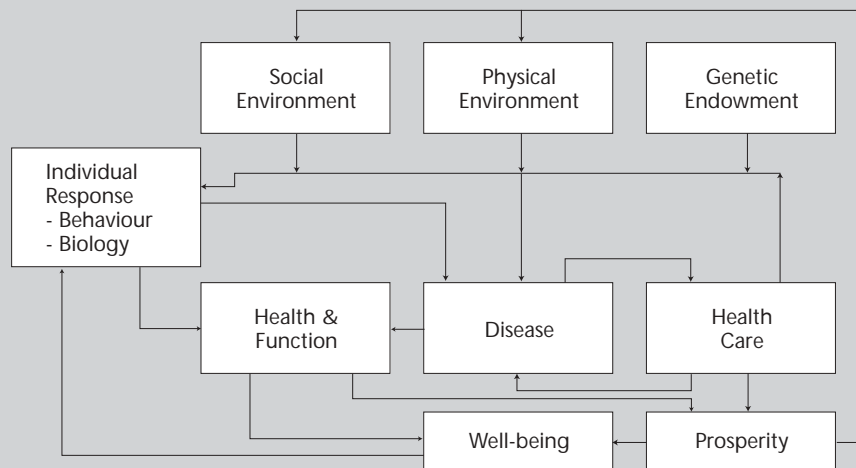
## 3.1 HEALTH IMPROVEMENT

### A broader picture of health

Current thinking in public health on what determines health relies on recognition of a social rather than a medical model of health. In other words, the health status of a population is influenced by a system of complex interactions including genetic inheritance, the physical environment (housing, air quality, transport), the social environment (relationships, education, work, local community), personal behaviour (smoking, diet, exercise) and crucially, access to, or lack of, money and other resources that give people control over their lives.<sup>2</sup> The Evans and Stoddart model in Figure 1 illustrates this complexity and diversity of health.

- Some key features of this model are:
- It is non-linear with multiple feedback loops
  - It relies on a broader definition of health; with the wider outcomes of disease, well-being and health and function
  - Key drivers within the model are the physical and social environment
  - Health care is only one of the fields and not the most important
  - The crucial role of prosperity as a determinant of health is recognised.
- "Towards a Healthier Scotland"<sup>3</sup> also embraces a broader definition of health in that it identifies tackling inequalities as an overarching theme and explicitly recognises and endorses the importance of life circumstances in determining health outcomes.

FIGURE 1: Evans and Stoddart Model<sup>24</sup>





A recent report<sup>2</sup> suggests that Scotland requires a significant increase in its trajectory of health improvement if its relative standing within Europe and the United Kingdom is to improve. Changes are therefore needed in the determinants of health, such as the physical and social environment, personal behaviours, prosperity and service provision. This responsibility cannot lie with any one agent of change but requires a combination of policy making, individual behaviour and organisational action. In other words, “it all matters.”

As indicated in Chapter 1, pharmacists work in widely disparate communities and settings. There is potential for them to reduce health inequalities in specific ways. For example, through health technology assessments and through the Scottish Medicines Consortium (SMC) pharmacists contribute to authoritative advice which can minimise regional variations in prescribing practice. Independent NHS prescribing by community pharmacists can also minimise local variations in medicines utilisation by increasing access to selected medicines for eligible customers.

The physical design of community pharmacy premises should provide an appropriate environment for a person-centred approach to health improvement. As part of the community and primary care premises modernisation programme, funded by the Scottish Executive, a number of

model health promoting pharmacies have been established. This has involved refurbishment of premises with the installation of discrete consultation areas and, in some cases, treatment and consultation rooms to improve privacy and confidentiality for customers and to promote use by other health professionals such as complementary therapists and chiropractors.

#### Joint engagement to improve health

Local authorities have been given a statutory responsibility through Scottish legislation to work with others to improve health.<sup>25</sup> Community planning partnerships (including NHS, public agencies, voluntary and community groups, service users and businesses) now produce Joint Health Improvement Plans. These outline strategic objectives and actions for each partner to improve health and reduce inequalities in health and are cross-cutting in nature. Each Local Authority Community Plan includes the Joint Health Improvement Plan as one element but should also make references to health throughout the plan as a common thread.

The Joint Futures Agenda also commits the main service providers working in health and social care to providing integrated care for those who need it.<sup>26</sup> Joint planning, assessment and provision of services should ensure that users receive a more coherent integrated package of care than has formerly been delivered.

# 3

## Self-care

The Scottish Health Plan states:  
“People want to control their conditions rather than let the conditions control them.”<sup>7</sup>

Pharmacists are in an ideal position to provide face-to-face support and information in a wide range of formats to promote self-care and public involvement. This is particularly relevant in self-medication of minor illnesses and in the management of chronic diseases such as asthma, diabetes and heart disease.

The public has never had greater access to information around different aspects of health through a variety of media. Recent advances in computer technology and the explosion of information available via the internet has increased public access to a wide range of health related information, some of dubious quality and reliability, including behavioural advice, self-medication and guidance on sources of support for particular health issues or interests. Some pilot work has taken place on the effectiveness of the provision of touch screen health information in pharmacies for members of the public.<sup>27,28</sup> There is potential to expand this model by establishing NHS badged touch screen health information in pharmacies across Scotland. In this way, consumer friendly health information could be put in context and recommended by the pharmacist in the knowledge that it is quality assured by professionals within NHSScotland. Young people are a

particular group who could benefit from improved access to reliable health related information on potentially sensitive topics which they could access anonymously and discreetly. These computer points could also provide more general information which members of the public could pursue according to their own interests as well as providing access to useful websites such as HEBSWEB and SHOW (Scotland’s Health on the Web).

## 3.2 NETWORKS

Real partnership working can only take place in a climate of engagement and collaboration. A range of networks exist which connect individuals who have a direct or indirect pharmaceutical public health focus. These networks are outlined briefly below.

### Pharmacy based networks/organisations

**Scottish Specialists in Pharmaceutical Public Health (SSiPPH).** This group brings a strategic approach to pharmaceutical developments in public health, building on the existing framework in routine pharmacy practice. Membership includes representation from NHS Boards, the academic sector, NHS 24 and the Scottish Prison Service. Priorities typically include:

- Influencing Health Plans of the Unified Boards
- Managing the introduction of new medicines



- Strategic planning for the handling of vaccines
- Pharmaceutical service needs assessment
- Supporting community pharmacy involvement in health improvement
- Linking with local authorities e.g. medicines in schools
- Promoting evidence-based practice
- Facilitating communication systems for SEHD Medicine Recall Notices and immediate public health messages
- Supporting clinical effectiveness and governance in pharmacy practice.

Current priorities of the group include the development of 'tool kits' for assessing the pharmaceutical needs of local populations, the development of a pharmaceutical public health dataset and development of the pharmaceutical public health workforce.

**The Association of Scottish Trust Chief Pharmacists (ASTCP)** members are responsible for the provision of pharmaceutical services within the acute and primary care sectors across Scotland. In primary care, this responsibility extends to the delivery of high quality pharmaceutical care by independent contractors in accordance with nationally and locally negotiated contracts. ASTCP's primary objective is to ensure management and development of systems for the safe, efficient and cost-effective provision of pharmaceutical care to patients and members of the public.

**The Royal Pharmaceutical Society of Great Britain (RPSGB)** is the regulatory and professional body for pharmacists. It has a statutory duty to maintain the register of pharmaceutical chemists and pharmacy premises. The Society operates across all branches of the profession to promote and develop the science and practice of pharmacy.

**The Scottish Pharmaceutical Federation** represents the majority of owners of community pharmacies in Scotland, supporting their professional interests. In conjunction with its sister association, the National Pharmaceutical Association (England) (NPA), it provides indemnity cover, business and financial services, professional service development advice, training services, commercial insurance and information and guidance on general pharmaceutical matters or queries.

**The Scottish Pharmaceutical General Council (SPGC)** is the organisation recognised by Scottish Ministers to represent Community Pharmacy in Scotland. It negotiates with the Scottish Executive, on behalf of community pharmacy contractors, the terms and conditions for the provision of NHS pharmaceutical services. SPGC also provides information to community pharmacists on drug tariff products and monitors the accuracy of prescription pricing.

**The Guild of Healthcare Pharmacists** is a professional organisation for



# 3

pharmacists working in hospitals (both public and private), Health Authorities, NHS Boards, primary care groups, general practices and elsewhere in the managed services. It serves as an independent voice for these pharmacists at both local and national level. The Guild provides its members with a range of educational, scientific and professional activities in addition to comprehensive industrial relations support.

**National Pharmacy and Health Promotion Group.** This group has representation from health promotion departments, several pharmacy organisations and NHS based pharmacists with HEBS taking a coordinating role. Its main aim is to explore the role of pharmacists in contributing to the main priorities outlined in "Towards a Healthier Scotland".<sup>3</sup> The group has undertaken an analysis of current health promotion practice in pharmacies and a report is due to be disseminated detailing this work.

#### Managed Clinical Networks

Managed Clinical Networks are defined as: "linked groups of health professionals and organisations from primary, secondary and tertiary care, working in a coordinated manner, unconstrained by existing professional and NHS Board boundaries to ensure equitable provision of high quality clinically effective services throughout Scotland".<sup>29</sup> These networks can exist at a local as well as a national level. Community and hospital

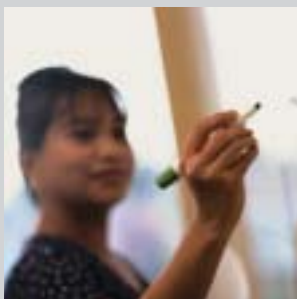
pharmacists, as members of managed clinical networks, can make a significant contribution to enhancing the care of patients with diseases such as diabetes, CHD and cancer.

#### National Learning Networks

Scotland-wide learning networks for three priority areas – heart health, child health and sexual health (each the subject of a National Demonstration Project) – have been established with the aim of developing and sharing the evidence base for action and translating policy priorities into practice. Practitioners and policy makers will be engaged with these networks – pharmacists can make a valuable contribution at the practice or policy level.

#### Voluntary/Community Networks

Partnerships between health services, communities and service users are developing as part of a growing recognition of the valuable role that the community and voluntary sector can play in health improvement. Pharmacists, through their local networks, can help customers to access the wide range of voluntary sector patient and support organisations in the area. For example, customers using smoking cessation services can be referred to local support groups, a breast-feeding mother can be referred to the local breast-feeding support group and worker.



### 3.3 SKILLS DEVELOPMENT

Pharmacists engaged in public health include specialists working in NHS Boards, academia, local and national government departments and practitioners working directly in the provision of services to the public in primary and secondary care (see Chapter 1). The specialists' aim is to provide leadership and strategic support to facilitate the practitioners' role – promoting an understanding of the principles of public health and developing skills to maximise their contribution to this agenda.

#### Undergraduate teaching

The two Schools of Pharmacy in Scotland (Strathclyde and Robert Gordon's) both address the principles and practice of public health in their current undergraduate curriculum. The RPSGB is revising its requirements for the accreditation of undergraduate pharmacy degrees, such that the new syllabus will reflect developments in pharmacy practice and pharmaceutical care. The emphasis on public health is expected to increase accordingly.

#### Postgraduate education and training

Most postgraduate pharmacy courses have developed around the more traditional medical model of health, clinical pharmacy and prescribing management. Recent acceptance of a broader model of health has

highlighted the need for inclusion of public health education for pharmacists to augment clinical qualifications and expertise. This will complement the existing SCPPE commitment to both direct and distance learning on aspects of health promotion.

At present, Scotland has no structured training programme in public health and no accrediting body for specialists outside medicine and dentistry. The FPHM has however recently changed its structure and constitution to open all membership routes to disciplines other than medicine and to promote integrated training for Specialist Registrars in Public Health Medicine and other Public Health Specialists.

PHIS is facilitating the development of a multi-disciplinary masters degree in public health practice and contributing to CPD programmes for public health professionals through a pilot of a multi-disciplinary learning network. Pharmacy participation will be essential to meet individual needs and raise awareness of pharmaceutical public health priorities with other members of the public health workforce.

#### Pharmaceutical public health standards

The FPHM has agreed core elements of practice to form the basis for the development of public health across the disciplines, as illustrated in Table 2 overleaf.

# 3



TABLE 2: Core Elements of Practice for the Development of Public Health

1. Strategic leadership for health
2. Policy and strategy development and implementation
3. Developing health programmes and services and reducing inequalities
4. Surveillance and assessment of the population's health and well being
5. Promoting and protecting the population's health and well being
6. Collaborative working for health
7. Working with and for communities
8. Developing quality and risk management within an evaluative culture
9. Ethically managing self, people and resources
10. Research and development

Standards to shape the future development of the specialist multi-disciplinary public health function are now established<sup>30</sup> and corresponding standards for practitioners working in public health are under development. This framework can be easily adapted for pharmacists.<sup>31</sup>

### 3.4 EVIDENCE-BASED PRACTICE

Evidence-based public health is now accepted as an integral part of policy making and health improvement. This is as relevant for pharmacy as for any profession and there is now accumulating evidence relating to what works well in various aspects of pharmaceutical practice. There are a

number of useful tools already in current use to enhance evidence-based practice including the following:

#### Needs assessment

Needs assessment is key to the prioritisation and development of effective health services.<sup>32</sup> This is a fundamental public health process for gathering information in a systematic way to measure health needs nationally or locally. Information sources include population demographics, disease incidence and prevalence, public opinion, costs and consequences of service provision.

To date there has been little attention to formal needs assessment for



pharmaceutical services. The SSiPPH plan to support the development of 'tool kits' for assessing the pharmaceutical needs of local populations. One of the priority topics is palliative care, in line with the principles of the National Cancer Plan.<sup>33</sup> To promote equity of access to current services and to deliver seamless pharmaceutical care in the future, a focus is required on the pharmaceutical aspects of the palliative care needs assessment.

#### Public health data and information

The Review of the Public Health Function<sup>5</sup> identified a key challenge for public health – conversion of the wealth of data into information which is accessible, relevant and meaningful to many different audiences. PHIS is developing a comprehensive and holistic, national public health database, combining routine data on the determinants of health and health outcomes, as well as new data sources on traditionally weaker areas (e.g. well being and the social environment). The aim is to create a database which functions as a tool for planning and policy analysis across traditional boundaries. Pharmacy prescribing data could feed into this database providing a useful picture of trends in medicine use in association with other indicators.

Profiles, which characterise populations from a public health perspective, can inform needs assessment, service provision and

achievements in health improvement. These vary in scale (e.g. national, parliamentary constituency and individual neighbourhoods) and focus (e.g. heart health, oral health). There is scope to generate equivalent profiles to reflect the pharmaceutical public health of local populations.

Each community pharmacy serves a specific population and therefore has access to locality based information about the use of both prescribed and OTC medicines. There is a need to consider how to capture this information and how it can contribute to improving public health. It would be informative to understand how public health and epidemiology affect local prescribing data (and vice versa). The Tayside model of diabetes care has demonstrated the potential for pharmaceutical/prescribing profiles to be integrated into clinical information systems.

There are also questions to be addressed, for example:

- Can pharmacies provide an 'early warning system' of local outbreaks of disease?
- Can 'spotter pharmacies' provide data to support our understanding of the incidence of flu-like illness, resistance patterns to head lice treatments or the utilisation of specific OTC medicines?

# 3



## Health protection

The increasing incidence and prevalence of blood borne viral infections is a major public health concern. Epidemiology of the human immunodeficiency virus and the hepatitis C virus has recently been reported.<sup>34,35</sup> The main routes of transmission are through unprotected sex and sharing of drug injecting equipment. A national survey demonstrated that many community pharmacists could play a greater role in health protection through the supply of condoms, lubricants, dental dams and advice.<sup>36</sup> Barriers to delivering this extended service were identified as lack of privacy, training and remuneration. The first of these should be gradually overcome with the increase in the number of community pharmacies with private counselling areas.

Unlike other parts of mainland Britain, pharmacy in Scotland contributes actively to the provision of the childhood vaccination programmes, through a series of hospital based, vaccine-holding centres. This co-ordinated effort yields benefits for the supply chain to GPs but leaves community pharmacy personnel virtually excluded from the clinical aspects of the immunisation programme. In response to declining rates of immunisation in some localities, the community pharmacist could play a more proactive role in providing information about vaccines, increasing awareness of the risks/benefits and promoting an

increase in uptake. In the United States, the majority of States permit pharmacists to immunise members of the public.<sup>37</sup> A pilot project has been established in Grampian where appropriately trained community pharmacists can administer flu vaccine to eligible members of the public. An evaluation of this approach will assess uptake, client acceptability and overall effectiveness.

Safe and effective use of antimicrobials is a particular public health priority due to increasing antimicrobial resistance at a national and global level. Senior government committees have highlighted the need for action to improve prevention and control of infection, prescribing habits and surveillance.<sup>38,39</sup> There is also concern at a Scottish level.<sup>40</sup> Hospital and community pharmacists can promote good practice in the use of antibiotic prescribing.

The Scottish Antimicrobial Resistance Strategy<sup>41</sup> identifies eight inter-related elements as the basis to manage this problem, of which surveillance, prudent antimicrobial use and infection control are most relevant to the pharmacy profession. The Scottish Centre for Infection and Environmental Health (SCIEH) is clearly identified in a leadership role across the 'action areas' of the strategy. One of the research priorities of the strategy is examination of the links between prescribing patterns and antimicrobial resistance. SCIEH



surveillance activity includes capture of information on antimicrobial resistance patterns while PCT pharmaceutical advisers and hospital pharmacists have access to a wealth of GP and hospital prescribing data respectively. A collaborative SCIEH/pharmaceutical public health perspective on this research could therefore be helpful, to improve understanding of the epidemiology of infectious disease, the factors affecting prescribing practice and how this influences the reporting of resistant microorganisms.

#### Harm reduction

Community pharmacists are ideally placed to deliver harm reduction interventions. Harm reduction can be defined as the process of gradually reducing psychological, social, medical and legal problems to a safer overall level in the context of health damaging behaviour. Drug misuse is a serious public health problem in Scotland with nearly 60,000 drug misusers in the Scottish population.<sup>42</sup> Research has shown that community pharmacists are an underused point of contact for the drug misusing population.<sup>43</sup>

Harm reduction in relation to drug misuse includes the promotion of safer injecting practices amongst drug users. Needle and syringe exchanges and methadone services for drug users can lead to a reduction in the sharing of drug injecting equipment and a corresponding

reduction in infection rates.<sup>44</sup> Community pharmacies provide cost-effective and accessible facilities for the distribution of clean injecting equipment. As a starting point, there is an immediate need for more 'exchange pharmacies', better links with national drug misuse databases and an increase in the range of items made available to drug misusers e.g. citric acid, filters and water for injection.

Methadone programmes are widely recognised as being effective harm reduction interventions for opiate dependent drug users.<sup>45</sup> The supervised consumption of methadone in community pharmacies is based on a locally negotiated contract. While the core professional requirements are specified by the RPSGB, there may be minor variations in service specification and remuneration between PCTs. Inequalities are also apparent from a prescribing viewpoint. There is a need to share good practice across Scotland – shared care schemes such as that operating in Glasgow have achieved significant success in treatment outcomes for patients.<sup>46</sup> A working party chaired by a SSiPPH member is currently developing recommendations for the pharmaceutical care of the drug misuser.

#### Health promotion

Tobacco use is the largest avoidable cause of serious ill health and premature death in the UK.<sup>47</sup> Robust evidence supports the clinical and

# 3



cost-effectiveness of pharmacy based, smoking cessation schemes, including the provision of nicotine replacement therapy (NRT).<sup>48</sup> Across Scotland, a range of community pharmacy schemes are established and pilot evaluations have demonstrated the benefits of hospital initiation of NRT in selected high risk patients. However, these developments have typically been small scale and short term. A co-ordinated national effort is required to develop a comprehensive, pharmacy based smoking cessation programme. This type of programme would improve individual access to NRT and cessation support and could reduce GP workload.

The health and well being of children and younger people is a national priority. One of the principal concerns is the teenage pregnancy rate, which is higher in Scotland than in most other Western European countries.<sup>3</sup> Use of emergency contraception has the potential to prevent a significant number of unwanted pregnancies but there are ethical and moral issues associated with its use. In 2001, emergency contraception was deregulated to allow OTC sales through community pharmacies. This facility has been extended in some areas to allow independent NHS prescribing for eligible customers. Evaluations have demonstrated a high level of support from service users and other healthcare professionals for the involvement of

community pharmacists in this role.<sup>49</sup> Particular benefits include:

- Increased access to emergency contraception; 50% of supplies occurred over the weekend and on Mondays when mainstream services were restricted
- Increased opportunities for vulnerable young people to be referred to mainstream services.

In Fife, community pharmacists are authorised to supply, through the NHS, condoms, pregnancy tests or emergency contraception, which together with client counselling, forms part of a co-ordinated package to improve sexual health and tackle rising rates of teenage pregnancy.<sup>50</sup>

## NATIONAL PRIORITIES/TREATMENT OF DISEASE

### Coronary heart disease (CHD) and stroke

The prevention and treatment of CHD and stroke is a national priority. A National CHD and Stroke Task Force has been established to drive forward work across the spectrum of CHD and stroke care from primary prevention to rehabilitation. A CHD and Stroke Strategy is now in place which calls for all NHS Boards, through their local managed clinical networks, to develop explicit CHD and stroke prevention strategies by December 2004.<sup>51</sup> These should link to, and may be an integral part of, more general strategies for primary/secondary prevention/health improvement, such as

### Joint Health Improvement Plans and Local Health Plans.

The evidence-base to support pharmacy involvement in CHD primary and secondary prevention is expanding and illustrates the contribution pharmacists can make at the interface of health promotion, disease prevention and disease management. It includes:

- A pharmacist run hypertension review clinic (Lothian)
- Pharmacist led anticoagulant monitoring/dosage titration (Tayside, Ayrshire and Glasgow)
- Community pharmacy identification of the need for aspirin therapy ('Have a Heart Paisley')
- Community pharmacy based lipid management services<sup>52</sup>

(See Appendix 2 for further discussion of CHD and stroke in relation to pharmacy.)

### Diabetes

Recent guidelines for diabetes prevention, treatment and care published within the Scottish Diabetes Framework highlight the role of the hospital pharmacist in high risk, acute care and the community pharmacist in prevention, detection and chronic disease management.<sup>53</sup>

The RPSGB has advocated a more proactive role for the community pharmacist in the prevention, detection and monitoring of type 2 diabetes, as part of the multi-disciplinary primary care team.<sup>54</sup> This is driven by the ability

of the pharmacist to work in an informal, opportunistic way to improve access, identify risk, respond to symptoms and make referrals. In addition, analytical technologies now permit diabetes screening and monitoring within selected community pharmacies. In Lothian, pharmacy involvement in a multi-disciplinary review programme for type 2 diabetes has resulted in clinically significant improvements in glycaemic and blood pressure control, together with improved patient understanding of the disease and its treatment.

### Cancer

Cancer is a major public health problem and is now the leading cause of premature mortality in Scotland.<sup>33</sup> Pharmacists and support staff can offer preventative advice on reducing cancer risk and encourage screening, where appropriate, for early detection and treatment. Pharmacists have a particular responsibility for early referral to GPs in response to symptoms which may indicate colorectal, skin or oral cancer.

Several forms of radiation and industrial chemicals have been linked with cancer but the single most important environmental issue is ultraviolet radiation from sun exposure which is a major risk factor for skin cancers. Pharmacists can encourage and support people to put "sun safe" messages into practice and can also alert





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clients taking certain medicines of the increased susceptibility of skin damage in the sun.

Pharmaceutical care of patients in the acute phase of their treatment programme is particularly challenging, in the hospital, day case and outpatient settings. Specialist hospital pharmacists will exert an increasing influence on cancer care through the managed clinical networks which are emerging on a regional basis across Scotland. An average community pharmacy will support about twenty patients with cancer at any one time, many of whom need extra care and attention with the complexities of the disease and its treatment. There is also a range of pharmaceutical care priorities for patients who may require palliation in the final stages of their disease. Pharmacy therefore plays a role in the four stages of cancer management, as identified in the National Cancer Plan for Scotland – prevention, early detection, treatment and palliative care.<sup>33</sup> (See Appendix 2 for further detail on cancer in relation to pharmacy.)

## 3.5 CONCLUSION

The new environment for health improvement lends itself to collaboration and engagement between diverse professional groups, the community/voluntary sector and members of the public. This chapter has shown the extent to which pharmacists are already involved in many different aspects of public health, as individual practitioners, at a strategic level and as members of various networks. There is potential to further develop and strengthen the pharmaceutical public health role within the multi-disciplinary team. Chapter 4 outlines key recommendations for the future.

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## CHAPTER FOUR Recommendations

THIS CHAPTER PRESENTS RECOMMENDATIONS FOR THE FUTURE UNDER THE KEY THEMES AND WAYS OF WORKING DISCUSSED IN CHAPTER 3:

- Health improvement
- Networks
- Skills development
- Evidence-based practice

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This Report outlines the distinctive contribution of pharmaceutical public health to health improvement in Scotland at local, regional and national level. This is achieved through a multi-disciplinary public health approach and is delivered principally, though not exclusively, by the pharmacy profession. Clearly, opportunities exist for the role of pharmaceutical public health to be developed in a co-operative way both within NHSScotland and across a range of other statutory and voluntary organisations.

This chapter presents recommendations for the future under the key themes and ways of working discussed in Chapter 3, namely health improvement; networks; skills development; evidence-based practice. The rationale for each recommendation and an indication of its timescale are also given.

Implementation of these recommendations will require wide ranging input and support, both within and beyond the profession, to allow pharmaceutical public health to realise its full potential.

## 4.1 HEALTH IMPROVEMENT

### PHARMACY PREMISES

1. A community pharmacy modernisation programme should be supported throughout Scotland to promote pharmacies as centres for public health advice and information.  
Timescale: 2005

#### *Rationale*

Community pharmacies are used increasingly as a 'first port of call' for NHS services and self-care. The goal is to establish the pharmacy network as a primary source of advice and information for health improvement in addition to its established role with medicines and other health care products.

Improved access to modern pharmacy facilities across Scotland will facilitate the delivery of high quality pharmaceutical care. The NHSScotland modernisation programme has already established a small number of 'model community pharmacies' and the wider development of private consultation areas. This environment is conducive to the delivery of health improvement, presenting the pharmacy as a 'walk-in healthy living centre'.

### PUBLIC HEALTH INFORMATION

2. Electronic health information points should be established in community pharmacies, badged under the NHSScotland logo, to increase public access to current, quality assured health information.  
Timescale: 2005

### *Rationale*

Information and advice on medicines and health is currently available in many different forms through community and hospital pharmacies. Conventional methods can be supplemented with the development of IT systems, to extend key public health messages to children, teenagers and others who may be more receptive to this approach.

Health information is now routinely accessible in electronic form. However, the quality, reliability and relevance of such information is sometimes questionable. If NHS accredited, electronic health information points are to be considered in the future, for example by NHS 24, they could be sited in community pharmacies, where there is ready access to professional advice and interpretation.

### **IMPROVING ACCESS**

3. A needs assessment tool kit should be developed for 'out of hours' pharmaceutical services to enable PCTs and LHCCs to quantify existing provision and evaluate future needs.

Timescale: 2003

### *Rationale*

Improved provision of information on, and access to, pharmacy 'out of hours' services has been highlighted by patient and voluntary organisations as a priority for the pharmacy profession. This refers not only to NHS dispensing but also to the wider aspects of pharmaceutical care and health advice. The SSiPPH will assume lead responsibility for the tool kit to promote a consistent, structured approach but implementation will require broad ranging support from within and beyond the profession. The assessment should be conducted to consider both hospital and community pharmacy in the context of other 'out of hours' health services e.g. local GPs, NHS 24, dental services.

4. NHSScotland and local authorities should work through community planning partnerships to support a health improvement role for all community pharmacies, particularly in areas of rural and urban deprivation.

Timescale: 2004

### *Rationale*

Given the established link between ill health and social deprivation, there is some justification for selected community pharmacies functioning principally in a public health capacity. This could apply to a social inclusion partnership in an urban area with an established pharmacy or to a remote or rural community currently without



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a pharmacy. Both national and local pharmaceutical service contracts should be designed to take account of health improvement as well as prescription activity. An effective NHS/local authority partnership would further underpin this, with community planning partnerships identifying priority areas, targeting resources and supporting new ways of working.

5. Prescribing of medicines by pharmacists should be extended to a wider range of clients and clinical indications.

Timescale: 2003

### *Rationale*

Community pharmacists are already recognised, in certain localities, as NHS prescribers for a range of OTC and some prescription only medicines – for clients who are normally exempt from prescription charges. This improves access to services, reduces GP workload, utilises resources more efficiently and promotes self-care. These arrangements should be extended to other geographic areas, clinical indications, medicines and pharmaceutical products.

There is additional scope to extend this model to 'lifestyle drugs' (e.g. for obesity, impotence and male hair loss) for clients who do not qualify for NHS care. These are typically prescription only medicines, so supply could be governed by patient group directions via private transaction. The incentive is to minimise the risk that these clients will seek their prescription via the internet or another unauthorised supply route, without professional advice or information.

These developments are consistent with the Scottish Executive commitment that NHS primary care services will be routinely accessible within forty-eight hours, with identification of community pharmacy as one of the pathways for referral by NHS 24. This approach also supports promotion of the 'expert patient' and self-care through consumer groups and voluntary organisations.

### **CHILD HEALTH**

6. A strategy should be developed to improve the pharmaceutical care of children of all ages, in line with national initiatives.

Timescale: 2003

### *Rationale*

Child health is one of our national health priorities. Child poverty, and associated ill health, remains a reality in Scotland today. Problems with nutrition, oral health and chronic disease begin at an early age and create an unwelcome legacy for the NHS for many years to follow. The 'Starting Well National Demonstration' Project is



now well established in Greater Glasgow in selected, socially deprived communities. Its aims include promotion of better links between families with young children, health visitors and community pharmacies. If the proper groundwork for good health can be established early, there is optimism for good health in later life.

The Strategy should take a population and individual perspective. It should consider a range of issues in hospital and primary care, including childhood immunisation, fluoride supplementation, safety from sun exposure, sexual health advice, substance misuse, accident prevention, use of unlicensed medicines and pharmaceutical risk management. There is a particular need to ensure continuity of care across the GP/hospital interface and at the transition of service provision from child to adult NHS services.

The Strategy should also look at medicines utilisation outside the NHS. Pharmacists could work with school nurses, for example, to help raise the public health profile in local schools, with contractual arrangements to provide advice on health improvement and the safe use of medicines in the school environment. In this way pharmacies can become part of an integrated, community-based, child health system which facilitates referral across the NHS and promotes links between the NHS, local authorities and voluntary organisations.



#### HEALTH PROMOTION

7. The practice of health promotion in community pharmacy should become a focus for the Model Schemes for Pharmaceutical Care, to promote a consistent approach to 'near patient testing' and advice on lifestyle factors influencing health. Timescale: 2005

##### *Rationale*

Advances in analytical technology have brought a range of biochemical and clinical tests within the scope of routine community pharmacy practice. Finger prick blood tests are available to guide warfarin therapy and can assist the assessment of hypercholesterolaemia, diabetes and osteoporosis. Carbon monoxide monitors are used to gauge success with smoking cessation and peak flow meters or blood pressure monitors to guide responsiveness to prescribed medicines. Typically, this activity is driven by commercial pressures and its provision is patchy.

The risk is that such services are disconnected from the rest of the NHS (although the individual client's right to confidentiality must be respected). If a service for screening or disease monitoring is deemed worthwhile, then it should be accessible to all, not just the 'worried well' who can afford the new technology. Until the NHS eligibility debate is concluded, consumer demand for 'near patient

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testing' will continue. The goals of the Model Scheme should therefore include standardisation of the tests available, maintenance of the equipment, analytical procedures, quality control, staff training, record keeping/reporting and, above all, professional interpretation of the results.

More traditional aspects of community pharmacy health promotion would also benefit from a consistent, co-ordinated approach across NHSScotland e.g. smoking cessation, nutritional advice, cancer prevention and oral health education.

## 4.2 NETWORKS

### SPECIALIST PHARMACEUTICAL PUBLIC HEALTH ADVICE

8. NHSScotland and other statutory and voluntary organisations need access to specialist pharmaceutical public health advice. New ways of networking and co-ordination should be explored to increase the availability of 'intelligence' on pharmaceutical public health priorities.

Timescale: 2003

#### *Rationale*

SSIIPPH are mainly appointed by NHS Boards to influence planning and prioritisation, manage risk and provide leadership for the development of effective pharmaceutical public health practice. Such appointments are well established in most of the geographical NHS Boards and also in Special Health Boards (e.g. NHS 24). However this network lacks the connections for a broader public health influence e.g. local authority partners, some of the smaller NHS Boards and the voluntary sector do not have routine access to this specialist advice.

The aim is increased access to pharmaceutical public health advice and information for a range of individuals and organisations. This will require innovative approaches to the 'pooling' of experience at national, regional and local levels. It is planned to launch the SSIIPPH web site in early 2003, to provide a starting point for better communication arrangements. There may be lessons to learn from the way that Wales and Northern Ireland have developed partnerships between the NHS, local authorities and other statutory and voluntary organisations.

### VOLUNTARY/CONSUMER GROUPS

9. A working partnership should be developed between the pharmacy profession and the voluntary sector in Scotland, to include a system of information exchange which facilitates client referral to and from community pharmacies.

Timescale: 2003

### *Rationale*

Self-care and patient concordance are important issues for the safe and effective use of medicines. A closer working relationship between pharmacy and the voluntary sector in Scotland would strengthen both parties, through a better understanding of client needs and professional capabilities. The goal is to change the public perception towards pharmacy as a public health profession and facilitate access to health and social care advice.

The RPSGB briefings programme for Members of the Scottish Parliament is an example of good practice which could be extended to Voluntary Health Scotland, the Scottish Consumer Council and Local Health Councils. At practice level, the targets should be a directory of national and local voluntary sector organisations in every community pharmacy and electronic information on every pharmacy in Scotland on the world wide web.

### **LHCCs**

10. An appraisal should be completed on options for the development of pharmaceutical public health capacity within the LHCCs.

Timescale: 2003

### *Rationale*

The Strategy for Pharmaceutical Care in Scotland<sup>1</sup> calls for pharmaceutical public health advice to be available to the LHCCs but there is no specification for how this should be structured or developed.

Pharmacy Locality Groups could provide the platform for public health planning, linking the local Specialist in Pharmaceutical Public Health, Trust Chief Pharmacists, hospital pharmacists and primary care pharmacists including community pharmacists and those based in GP practices. However, if such groups are to influence planning and the provision of services they must link effectively with the PHP and other multidisciplinary colleagues in the LHCC.

## **4.3 SKILLS DEVELOPMENT**

### **UNDERGRADUATE TEACHING**

11. The public health component of pharmacy undergraduate degrees should be reviewed to ensure inclusion of the core competencies for the public health agenda and to provide a foundation for scientific and clinical teaching.

Timescale: 2004





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## *Rationale*

Most pharmacists lack both formal training in public health and an understanding of how pharmacy can contribute most effectively to the health improvement agenda. Undergraduate teaching should ensure that the next generation of pharmacists has the awareness and skills for public health practice.

## **POSTGRADUATE EDUCATION AND TRAINING**

12. A framework for professional development in public health, which recognises the needs of pharmacists and introduces pharmaceutical public health to the wider public health workforce, should be developed and integrated into continuing professional development programmes.

Timescale: 2004

## *Rationale*

Within the diverse, multidisciplinary and expanding public health workforce, three levels of input are recognised by the FPHM, namely generalists, practitioners and specialists. To fully contribute at each level, public health skills and competencies should be developed during basic training and consolidated during professional practice.

A modular framework for professional development in public health is being developed through NHS Education for Scotland and PHIS programmes. The framework should include a module on pharmaceutical public health, where there are needs to address both within and beyond the pharmacy profession.

This module will serve as a core requirement for pharmacists seeking a specific knowledge base and competencies to function effectively as public health practitioners. Additionally, this module should also be of interest as an elective to a range of other health professionals, raising awareness of the pharmaceutical aspects of public health practice, to include imperatives such as the safe and effective use of medicines.

## **PUBLIC HEALTH SPECIALISTS**

13. A needs based programme for Specialist Registrars in Pharmaceutical Public Health should be considered as part of the proposed framework for non-medical specialists currently being developed by NHS Education for Scotland.

Timescale: 2005

## *Rationale*

The missing link in pharmaceutical public health is the Specialist Registrar position which would provide CPD and career progression for public health pharmacy

practitioners and succession planning for public health pharmacy specialists.

The goal is a needs based programme under the auspices of NHS Education for Scotland, with the participants undertaking an MPH programme (or equivalent) and working towards compliance with national standards and competencies for specialist public health practice in line with the FPHM. Completion of this programme of work, and the fulfilment of specific, distinctive professional requirements, may be considered a requirement for progression to the grade of Specialist or Consultant in Pharmaceutical Public Health.

#### PHARMACY TECHNICIANS AND SUPPORT STAFF

14. Education and training programmes for technicians and other support staff, in hospital and community pharmacy, should be revised to include public health principles and practice.  
Timescale: 2004

##### *Rationale*

Pharmacy technicians and other support staff play an essential part in supporting pharmacists in all areas of professional practice, including the provision of health information and advice. An increased awareness of public health/health promotion concepts and further development of communication skills would enhance this contribution. The aim is to complement the pharmacist's role in meeting the needs of local populations.

#### 4.4 EVIDENCE-BASED PRACTICE

##### NEEDS ASSESSMENT

15. The priority topics for pharmaceutical service needs assessment should be identified, together with an agreement on timetable, responsibilities and implementation.  
Timescale: 2004

##### *Rationale*

Needs assessment is a fundamental public health process for systematic gathering of information to assist the development of clinically effective and cost effective health services. To date, there has been little attention to formal assessment of pharmaceutical services although a focus on palliative care is currently underway to complement the National Cancer Plan. This assessment should guide prioritisation of service development through collaboration with national and regional cancer groups, thereby providing a model for future topics in other priority areas.

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The Strategy for Pharmaceutical Care<sup>1</sup> identifies an action for the SSIPPH to develop toolkits for needs assessment of specific pharmaceutical services. Assuming the desired outcome is a comprehensive assessment of current service provision and future needs, a toolkit may represent the starting point of a substantial piece of work with data collection from a wide range of sources, within and beyond the profession. Such a programme must be planned, managed and resourced accordingly.



## PUBLIC HEALTH DATA AND INFORMATION

16. A pharmaceutical public health dataset should be developed, to inform aspects of pharmaceutical care at a population level, guide planning of local services and add value to the evolving core public health dataset.

Timescale: 2004

### *Rationale*

Comprehensive public health datasets can be distilled down to generate informative local profiles. A pharmaceutical perspective within such profiles would improve understanding of the relationship between disease prevalence, patterns of morbidity and mortality, prescribing trends and levels of social deprivation. This should connect with and enhance existing national systems of pharmaceutical data collection through ISD.

One aim of this approach is improvement in understanding of the relationship between epidemiology and utilisation of medicines in local communities. There would be particular interest in more comprehensive surveillance of the demand for selected OTC medicines, together with their beneficial and adverse effects. At a different level, there is the challenge of monitoring medicines utilisation from non-NHS suppliers, as more medicines are deregulated to the General Sales List.

The dimensions of such profiles will vary according to demand from national, regional and local organisations. Populations of interest include those served by individual community pharmacies. The ability to characterise such populations, rather than continual reference to the 'average pharmacy', would inform local health improvement and service priorities.

17. Pilot studies should be supported on the feasibility of using community pharmacy "spotter practices" to highlight trends in medicines utilisation and requests for information and advice as markers of particular public health problems.

Timescale: 2005



### *Rationale*

Community pharmacies could hold the key to tracking the incidence of flu-like illness, mapping resistance patterns to head lice treatments and the early identification of local outbreaks of disease. A practical, yet robust method of surveillance is required to monitor the trends in utilisation of OTC medicines from selected pharmacies as part of the local and national public health protection system.

NHSScotland also needs intelligence on issues of public concern, and information on topics generating requests for advice. This could add a valuable dimension.

### HEALTH PROTECTION

18. There should be provision within NHSScotland for pharmacists to supply selected medicines, condoms and other items for health protection.

Timescale: 2004

### *Rationale*

Health protection programmes are associated with the management of communicable disease, infection control and immunisation. This is a traditional area of public health involvement for Board, hospital and community pharmacists, but opportunities exist for a new approach.

Pharmacists already supply items for treatment and prevention of communicable disease via OTC sales. In contrast, NHS access to items such as head lice treatments, condoms and flu vaccines tend to be via traditional routes requiring attendance at special clinics or appointments with the GP. These circumstances create inequity. The solution is NHS supply of selected items through community pharmacy, to meet the needs in particular of homeless people, asylum seekers and other vulnerable members of society, some of whom cannot readily access regular NHS services.

There are examples of good practice where head lice treatments are dispensed and where flu vaccines are administered in community pharmacies under NHS arrangements. Such practice needs to be rolled out on a more consistent basis to reduce inequalities.

19. The pharmacy profession should establish a formal link with SCIEH to address joint responsibilities highlighted in the SEHD 'Antimicrobial Resistance (AMR) Strategy and Scottish Action Plan.'<sup>41</sup>

Timescale: 2003

### *Rationale*

The Scottish AMR Strategy<sup>41</sup> identifies increasing prevalence of antimicrobial resistance, especially microorganisms with multiple resistance, as a major threat

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to public health and a cause of international concern.

SCIEH is clearly identified in a leadership role across the 'action areas' of the Strategy. One of the research priorities is examination of the links between prescribing patterns and AMR. SCIEH surveillance activity already includes capture of information on antimicrobial resistance patterns while PCT pharmaceutical advisers and hospital pharmacists have access to a wealth of GP and hospital prescribing data. A collaborative SCIEH/pharmaceutical public health perspective on this research could therefore be helpful, to improve understanding of the epidemiology of infectious disease, the factors affecting prescribing practice and the association with emergence of resistant microorganisms.

## HARM REDUCTION

20. National guidance should be developed for the provision of harm reduction services through pharmacy, building on the success of existing programmes in drug misuse and extending to those who misuse alcohol and other substances. Timescale: 2004

### *Rationale*

There is an evidence-base to support supervision of methadone consumption and the provision of needle/syringe exchange programmes through community pharmacy. The incentives for methadone supervision are well established – assurance of compliance and exclusion of 'street leakage'. The daily interaction between the pharmacist and the client is fundamentally important for a broader purpose, allowing overall assessment and attention to specific needs from wound management to oral health promotion. Needle/syringe exchange is recognised as a key, front line, intervention in promoting the use of 'clean works' and reducing the risk of infection from blood borne viruses. Both of these programmes are subject to local variation. There would be benefits from a more consistent and comprehensive service provision across NHSScotland.

HTBS has just completed a consultation exercise on prevention of relapse in alcohol dependence. Specific therapies (e.g. acamprosate) are now available to support patients through the acute phase and community based detoxification programmes are prescribed in some localities. The supervised administration model could easily be adapted to these therapies, assuring compliance and creating a supportive professional relationship between client and pharmacist.

## SEXUAL HEALTH

21. Within a multidisciplinary framework, the community pharmacist should be recognised as a source of advice on sexual health and should be authorised as a



NHS prescriber for the contraceptive pill and emergency contraception.  
Timescale: 2005

#### *Rationale*

A range of NHS services are available to promote sexual health but evidence supports a widening of the model of service provision, to include the community pharmacy network across Scotland on a more proactive basis. There is scope for better referral arrangements between established services and community pharmacy. The latter offers local access, often 'out of hours', without an appointment and without stigma. There is scope to build on the traditional advice and supply role.

Community pharmacy has a long history of involvement in the area of sexual health and in particular contraception. Consideration should be given to ways of allowing community pharmacists to provide oral contraceptives and emergency hormonal contraception, free of charge, without the need for a GP prescription, thereby extending availability and access.

#### **COST-EFFECTIVE PRESCRIBING**

22. NHS Boards and Trusts should review communication arrangements to ensure that hospital and community pharmacists can contribute effectively to implementation of SMC recommendations.  
Timescale: 2003

#### *Rationale*

SSIPPH, ASTCP and Prescribing Advisers are all involved in the managed introduction of new medicines. Mechanisms are in place (through SMC and HTBS in particular) to promote uniformity in prescribing practice across NHSScotland. Responsibility still rests with Area or Trust Drug and Therapeutics Committees to assess the implications of national guidance on local practice and to disseminate decisions to a wide range of practitioners.

Hospital and community pharmacists can influence the successful implementation of changes in prescribing policy. The core requirement is to ensure their inclusion in routine communication arrangements in all Boards. In addition, there is increasing interest in closer scrutiny of new medicines, post implementation. Specialist hospital pharmacists (e.g. in oncology, neurology, infectious diseases) will bring an extra dimension to review the clinical effectiveness of selected medicines, feeding 'intelligence' back to local Area Drugs and Therapeutic Committees (ADTCs), SMC and the Committee on Safety of Medicines.

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## EMERGENCY PLANNING

23. NHS Boards should review how the skills and resources of pharmacists might be better utilised in emergency planning.

Timescale: 2003

### *Rationale*

NHS Boards have a responsibility to develop strategies to respond to emergencies such as major accidents or the deliberate release of biological or chemical agents and also to ensure the provision of essential healthcare when normal services become overloaded, restricted or non-operational.

At national level, hospital pharmacists are already involved in strategic plans to manage medicines which might be required for treatment or prevention after an act of bioterrorism. The challenges involved in getting the right medication to the right patient at the right time are great, particularly in rural areas and island boards. An efficient supply chain and a professional advisory network are essential in response to such emergencies. Community pharmacists can assist in meeting this need.

## 4.5 CONCLUSION

This report has shown that pharmacists already make a significant contribution to public health in a variety of ways and in many different settings. There is enormous potential for pharmacists to play a greater role in health improvement by developing skills and involving them in delivering the wider agenda. Implementation of these recommendations is essential if the people of Scotland are to gain maximum benefit from pharmacists' specialist skills, knowledge and expertise. It will be challenging and is dependent on multi-agency collaboration and engagement, involving pharmacists and key players from the statutory, voluntary and community sectors. This must be the next step.



## APPENDICES

APPENDIX 1:  
REFERENCE GROUP MEMBERSHIP

APPENDIX 2:  
PHARMACEUTICAL PUBLIC HEALTH PRACTICE

APPENDIX 3:  
MANAGED INTRODUCTION OF NEW MEDICINES



# appendix one

## Reference Group Membership

Ms Gillian Agnew	Health Promotion Manager	NHS Ayrshire & Arran
Ms Sally Arnison	NHS Service Development Manager	NPA
Dr Eric Bajjal	Director of Public Health	NHS Grampian
Ms Susan Bishop	Trust Chief Pharmacist	Forth Valley PCT (ASTCP)
Mr Niall Coggans	Senior Lecturer	Department of Pharmaceutical Sciences, University of Strathclyde
Mr John Gillies	Community Pharmacist	SPGC
Ms Debbie Jamieson	Pharmaceutical Advisor	NHS 24
Ms Ann Kerr	Health Services Programme Manager	HEBS
Ms Jacqui Lunday	Professions Allied to Medicines Strategic Project Officer	The Scottish Executive
Ms Liz MacDonald	Policy Manager	Scottish Consumer Council
Ms Marion Manzie	Senior Health Promotion Officer	NHS Tayside
Mr Asgher Mohammed	Community Pharmacist	RPSGB
Dr Dorothy Moir	Director of Public Health	NHS Lanarkshire
Mr Don Page	Technical Services Pharmacist	ISD
Ms Sue Plummer	Nurse Advisor	NHS Greater Glasgow
Dr Marion Storrie	Associate Medical Director	Lothian NHS Primary Care Trust
Mr Patrick Sweeney	Consultant in Dental Public Health	NHS Argyll & Clyde

# appendix two

## Pharmaceutical Public Health Practice



### 1. INDIVIDUAL FACTORS

#### 1.1 ORAL HEALTH

Scotland has one of the worst oral health records in Western Europe; 55% of 5 year olds have dental disease, which is clearly associated with social deprivation.<sup>55</sup> The Action Plan for Dental Services<sup>56</sup> made recommendations for improving oral health and the Scottish Executive has set a target for 60% of 5 year olds to have no dental disease by 2010.<sup>3</sup>

Community pharmacists are ideally positioned to give advice on oral health<sup>57</sup> and could play a key role in the early detection of oral cancers and the prevention of tooth decay, especially in young children.<sup>58</sup> Nationally, there is activity across a range of programmes to address oral health problems. In Glasgow for example, collaborative work is ongoing on a locality basis between community pharmacists and general practice dentists, including early referral of clients presenting in pharmacies for recurrent mouth ulcer treatment. In several NHS Boards, pharmacists are participating in programmes which distribute free toothbrushes and toothpaste to mothers of young children.

#### Sugar free medicines

A diet rich in sugar is damaging to oral

health. Paediatric medicines can add to oral health problems where a sugary liquid is given at night after tooth brushing. This is particularly relevant to children with chronic conditions receiving sugar containing medicines over a prolonged period. Pharmacists promote the OTC sale of sugar free medicines where possible and a national standard is now agreed whereby the sugar free formulation can be dispensed in response to GP prescriptions for all liquid medicines listed in the Drug Tariff.

#### 1.2 SUBSTANCE MISUSE

##### Drugs

Drug misuse is a major public health problem and a key priority for the Scottish Executive. Scotland's drug problem ranges from occasional recreational involvement to long-term addiction associated with significant individual harm and community disruption. One in six schoolchildren have used an illicit substance and two thirds of new clients contacting services are addicted to heroin.

Scotland's drugs strategy, "Tackling Drugs in Scotland: Action in Partnership" outlines four strategic areas in tackling drug misuse: young people, communities, treatment and availability.<sup>59</sup> Pharmacy can contribute to each of these areas as illustrated in Table 3.

# appendix two

## Pharmaceutical Public Health Practice



**TABLE 3: Areas of Drug Misuse Management and the Contribution of Pharmacy<sup>59</sup>**

Scottish Executive Strategic Area	The Contribution of Pharmacy
i. Young people: to help young people resist drug misuse in order to achieve their full potential in society	Health promotion and awareness raising activities in community pharmacies and the wider local community
ii. Communities: to protect our communities from drug related anti-social and criminal behaviour	Needle and Syringe exchange schemes
iii. Treatment: to enable people with drug problems to overcome them and live healthy and crime-free lives	<ul style="list-style-type: none"> <li>• Dispensing and supervised administration of methadone for participants in harm minimisation and abstinence programmes</li> <li>• Health promotion support for these clients</li> </ul>
iv. Availability - to stifle the availability of illegal drugs on our streets	Supervised administration of methadone prevents 'leakage'

The pharmacist's main role at a practice level is the provision of a prescribed substitute opiate (usually methadone) for maintenance or community detoxification programmes. Over 70% of community pharmacists in Scotland now dispense drugs for the management of drug misuse<sup>60</sup> and 57% provide a supervised consumption of methadone service which is the recommended first line treatment.<sup>61</sup> This compares with 60% and 19% respectively in 1995.<sup>62</sup> The number of drug misusing clients regularly attending community pharmacies has risen from 3387 to 8809 over the past six years reflecting the increasing problem and the change in practice.

To maximise the benefit and reduce

the risks (to both individual and society) it is recommended that methadone is dispensed daily and its self-administration supervised by a community pharmacist, for at least the first three months of treatment. Thereafter, on the basis of clinical judgement, clients may be given increasing responsibility for their own methadone supported by pharmacists and other team members. There are now several well-established schemes across Scotland, which fully involve the community pharmacy in this way.<sup>63:64</sup>

Community pharmacists are the health care professionals seen most regularly by the drug misuser, typically daily. Pharmacists are thus in a unique position to build a rapport with

individuals, providing support, encouragement and health care advice, observe their progress and provide professional feedback to the rest of the health care team. Drug misusers value this role when it is provided in a non-judgmental way.<sup>65</sup>

#### Alcohol

Alcohol misuse is another significant public health problem in Scotland with associated costs estimated as at least £1 billion annually.<sup>66</sup> Excessive alcohol consumption is associated with wide-ranging morbidity and mortality, including head and neck cancer.

In 1998, 33% of men and 15% of women aged 16 to 64 drank more than the weekly recommended limits and the Scottish Executive has set targets for improvement.<sup>3</sup> A major campaign was launched in April 2002 with a focus on tackling binge drinking amongst 18 to 35 year olds. The current upward trend in excessive drinking amongst 12 to 15 year olds is also a major concern. Pharmacological treatments to support abstinence are bringing new clients into primary care. Community pharmacists are well placed to contribute to these programmes in a supportive role, providing advice, promoting health and encouraging concordance with prescribed therapy.

### 1.3 MENTAL HEALTH

One in five adults in Scotland is affected

by mental health problems, suicide is a major cause of death in Scots men aged 15 to 34 and the prevention and treatment of mental illness is a national health priority.<sup>3,67,68</sup> The last twenty years has seen a substantial reduction in psychiatric admissions to hospital, made possible by the development of effective medicines, such as antipsychotics and antidepressants, that can be managed routinely in the primary care setting. An estimated 90% of mental health care is now provided this way. Pharmacists are key partners in the multidisciplinary primary care team, both in a specialist role providing pharmaceutical care for patients with mental illness and in a generalist role through community pharmacy, supporting patients and carers in prevention and treatment programmes.

The role of specialist mental health pharmacists is particularly important. Their activities include:

- Promoting evidence-based, clinically effective drug treatments
- Taking an active lead in developing guidelines for the use of psychotropic medications
- Development of local pharmaceutical care strategies
- Ensuring that service users receive adequate information and education about drug therapy
- Promoting and contributing to the training and education of care workers
- Facilitating access to medication

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- service users and professionals.
- Monitoring drug utilisation to reduce the likelihood of suicide in those at high risk of overdosing on medication
  - Facilitating interface working and co-operation with community pharmacists and GPs.

Community pharmacists can engage with vulnerable groups known to be at risk of developing mental health problems. They can play a role in health promotion – raising awareness of mental health issues through information provision and advice on healthy lifestyles and making appropriate referrals to primary care colleagues, local authority agencies and self help groups.

Community pharmacists also support pharmaceutical care in clients with mental illness, both in terms of the beneficial and adverse effects of treatment. Concordance with antidepressants is typically poor while psychotropic therapy is associated with a high incidence of adverse effects. Pharmacists also frequently deal with carers, providing information about medication or encouraging referrals to the local Social Work Department to have their caring needs assessed.

### 1.4 SEXUAL HEALTH

Sexual and reproductive health is essential to physical and mental well-being. Its determinants include equitable relationships, sexual fulfilment and accessible, accurate and consistent

information that aims to minimise the risk of unplanned pregnancy, illness and disease. There are opportunities for community pharmacists to become involved in various aspects of sexual health promotion, including:

- Offering advice to clients on sexually transmitted infections (STIs) and contraception
- Raising awareness about STIs and promoting safer sex by displaying health promotion materials and advertising telephone help lines
- Providing information about local sexual health and family planning clinics
- Encouraging clients to seek advice about signs and symptoms indicative of a sexual health problem and promoting referral where appropriate
- Management of regular contraception via prescribed contraceptives or the purchase of condoms
- Extending access to emergency contraception.

### Emergency contraception

The availability of emergency contraception through community pharmacy without GP prescription is the latest development in sexual health services. Pharmacists can supply emergency contraception effectively and appropriately; they are positive about providing this service and users are satisfied with it.<sup>69</sup> Pharmacy window displays can raise client awareness and increase subsequent enquiries about

emergency contraception. All clients, including those under 16, are entitled to a confidential consultation with their pharmacist and this duty of confidentiality needs to be publicised.

#### Safe sex

Safe sexual practices are important to prevent unplanned pregnancies, especially amongst teenagers, to reduce the incidence of STIs and to prevent further transmission of STIs to sexual partners.

Genital warts are the most common reason for first attendance at genito-urinary medicine clinics, followed by chlamydia.<sup>70</sup> For both, the highest rates of infection are in under 20s for females and in 20-24 year old males; for females the rate reduces after age 23 whilst the reduction occurs in males of 27 years and over. Chlamydia has exhibited the highest rise in incidence between 1990 and 1999 - almost threefold for females and 1.5 times for males. Pharmacists can advise young teenage women in particular on safe sex during consultations on prescribed and emergency contraception, and other related issues.

### 1.5 SMOKING CESSATION

Smoking is the single biggest avoidable cause of mortality and morbidity in Scotland, yet approximately 32% of the Scottish population still smoke, with higher percentages in more deprived communities.<sup>71</sup>

Smoking cessation is one of the most clinically effective and cost effective health care interventions. NRT, and bupropion (Zyban) can increase smoking cessation quit rates and their success is enhanced by appropriate support from a health care professional. Community pharmacists with brief intervention training can provide counselling which doubles the quit rate of smokers using NRT compared to those who obtain it from 'untrained pharmacists'.<sup>72-74</sup>

In 1999, the SEHD announced a Tobacco Initiative (NHS MEL (1999) 38) which provided NHS Boards with targets and funding support for NHS provision of NRT to 'disadvantaged' groups and accredited counsellors to support clients.<sup>75</sup> This has provided an incentive for the establishment of smoking cessation services in Board areas, the development of local guidelines to integrate NRT supply with counselling and the systematic involvement of community pharmacy.

The extent of community pharmacy involvement in smoking cessation programmes varies across Board areas, particularly in response to the authorisation of GP prescribing of NRT (April 2001). A SSiPPH survey of practice across Scotland indicated that pharmacy is well represented at a strategic level in policy development (although this was conducted prior to NRT being available on prescription). All except one Board distributed NRT through community pharmacies and all except one provided



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training in smoking cessation advice for community pharmacists. Ways of increasing pharmacy involvement to bridge the current counselling 'gap' and to address the needs of vulnerable groups (such as teenagers and pregnant women) include implementation of a Patient Group Direction for NRT. Two NHS Boards currently use this approach.

Although community pharmacists provide counselling on cessation as part of their usual practice when providing OTC or prescribed drugs, budgetary constraints have limited further developments. Only three Board areas currently remunerate community pharmacists for providing extra professional support/advice to smokers, as distinct from the supply function.

### 1.6 NUTRITION

Eating a balanced diet high in fruit, vegetables and complex carbohydrate such as bread, cereals and potatoes, and low in fat, sugar and salt, is essential for health.<sup>76,77</sup> Poor diet is a major risk factor for CHD, hypertension, stroke, diabetes and a number of cancers. Pharmacists can contribute to risk reduction by reinforcing healthy eating messages and giving advice on a range of dietary issues, including:

- Folic acid supplementation
- Breastfeeding support
- Infant feeding and weaning

- OTC vitamin and mineral supplements
- Diabetes care
- Osteoporosis prevention and management.

### Nutritional support

Nutritional support is a vital component of patient care during illness since undernutrition increases morbidity and mortality. Patients may receive prescribed nutritional supplements through community pharmacists or through hospital services and should be given advice on the appropriate use of these supplements. A range of OTC nutritional supplements is also available.

Some patients are unable to eat or drink enough to meet their daily nutritional requirements, while some are unable to eat or drink at all. In such cases, patients receive all or part of their nutrition via a tube, usually a gastrostomy tube, and may receive their prescribed enteral feed through community pharmacists or a home delivery system. A small number of patients in the community may require parenteral nutrition, where they are fed directly into a vein via a central line. Where community pharmacists are involved with the care of patients requiring either enteral or parenteral nutrition, there should be close liaison with other members of the health care team.



## 2. SPECIFIC POPULATION GROUPS

### 2.1 CHILDREN AND YOUNG PEOPLE

Child health is a key Scottish priority.<sup>3</sup> The 'Starting Well' National Demonstration Project is well established in Greater Glasgow in selected, socially deprived localities. Its aims include promotion of better links between families with young children, health visitors and community pharmacists.

The majority of community pharmacies offer advice (and supplies as appropriate) on a range of public health priority topics for children and young people as shown in Table 4.

There is potential to expand the role of the community pharmacist as part of the multidisciplinary child health team.

Opportunities include:

1. Increased access. Pharmacies could be 'safe havens' for teenagers seeking advice on health topics, including substance misuse, contraception, smoking cessation.
2. Improved information provision. Young adults should be able to use IT in community pharmacies to find NHSScotland accredited, quality controlled information on lifestyle and health protection topics.
3. More effective referral mechanisms. Pharmacies must become part of an integrated child health system in the community which facilitates referral across NHSScotland and promotes links between NHSScotland, local authorities and voluntary organisations.

**TABLE 4:** Advice from Community Pharmacists on Public Health Priority Topics for Children and Young People

Folic acid supplementation in pregnancy to avoid neural tube defects
Medicines and breastfeeding
Childhood immunisation regimens
Oral health and fluoride supplementation
Head lice prevention and treatment
Safety from sun exposure
Sexual health advice
Emergency hormonal contraception
Accident prevention through safe and secure storage of medicines in the home
Special pharmaceutical care needs e.g. children with learning disability



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Pharmacies must become part of an integrated child health system in the community which facilitates referral across NHSScotland and promotes links between NHSScotland, local authorities and voluntary organisations.

### 2.2 WOMEN

Approximately 70% of customers accessing community pharmacies are female.<sup>78</sup> Pharmacists can provide specific advice, for example, on the topic of reproductive health, to women who are planning a pregnancy, need a pregnancy test or are in early stages of pregnancy.

#### Preconception care

A healthy lifestyle is an important aspect of preconception care. Optimal health and nutritional balance of both parents at the time of conception have an important impact on the health of the baby. Access to clear and reliable information is important for making informed choices.

Pharmacists can advise on nutrition, smoking, alcohol consumption and physical activity. In addition, they can provide information on contraception, medication (including OTC medicines, complementary medicines, vitamin supplements and prescribed medicines), rubella, toxoplasmosis, food safety and other associated factors. The preconception period also offers an opportunity for cervical screening, immunisation and folic acid supplementation.

#### Fertility

Up to one in six couples may have difficulty conceiving and may seek advice and treatment. Pharmacists can provide general advice and information and have an important role in counselling women who go on to receive drug therapy for infertility. The chance of conception can be maximised by prediction of ovulation time and pharmacists can provide information and ovulation prediction kits for this purpose.

#### Pregnancy

Pregnancy testing is offered by most pharmacies. A positive result can lead to discussion about healthy lifestyles during pregnancy and about the safe use of medicines in general. Some pregnant women may also require advice on the management of chronic medical problems such as asthma, diabetes and epilepsy and on the symptomatic relief of common conditions associated with pregnancy such as morning sickness, indigestion, constipation, and cystitis. Pharmacists are well placed and well qualified to provide this advice.

### 2.3 OLDER PEOPLE

Medicine use tends to increase with age; 80% of people over 75 take at least one prescribed medicine, with 36% taking four or more.<sup>79</sup> As older people are exposed to a greater number of drugs and the ageing process affects the body's capability to handle medicines, they are



more at risk from the complications caused by adverse drug reactions. Between 5% and 17% of hospital admissions are due to adverse drug reactions and the majority of people affected are over 60.<sup>80,81</sup> Multiple pathology and complicated medication regimes may affect older people's capacity and ability to manage their own medicines. Up to 50% of older people may not be taking their medicines correctly.<sup>82</sup>

The National Service Framework "Medicines and older people"<sup>83</sup> identified particular problem areas including:

- Medicines under prescribed or not taken
- Changes in medication occurring without proper communication after discharge from hospital
- A need for improved repeat prescribing systems
- Problems in accessing the local surgery or pharmacy
- Continuing long term treatments which could be successfully withdrawn
- Poor two way communication between hospitals and primary care.

A pharmacist conducted medication review is most likely to be beneficial where an individual is taking a greater number of medicines or where GPs have not reviewed a patient's medicines in the previous year.<sup>84</sup> Polypharmacy can develop over time as medicines are added to counter the side effects caused by others or simply not discontinued when no longer needed. A study of pharmacist

conducted medication review showed that modifications to treatment were needed for half the medicines prescribed in care homes. The most frequent recommendation was to stop medication and in two-thirds of cases there was no stated indication for the medicine being prescribed.<sup>85,86</sup> Longer term follow up showed the number of medicines prescribed can be reduced with no adverse impact on morbidity or mortality.<sup>87</sup> There is evidence from randomised controlled trials of pharmacist-conducted medication review that these problems can be identified and resolved with the GP.<sup>88-90</sup>

Unintentional medication discrepancies have been found for 50% of patients after they have left hospital. Sending a copy of the discharge prescription to the community pharmacist as well as to the GP has reduced these.<sup>91</sup> A reduction in discrepancies was also achieved when a practice-based pharmacist processed the discharge medication.<sup>92</sup> The provision of a pharmacy information letter to elderly patients following discharge significantly reduced the incidence of drug related problems.<sup>93</sup>

The development of pharmaceutical care as a component of the over 75s multidisciplinary assessment has been initiated in Grampian.<sup>94</sup> The assessment sheets include prompts for appropriate action, advice or referral, with the involvement of both community and practice based pharmacists.

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Cardiovascular disease remains one of the major causes of morbidity and mortality in the over 60s. Hypertension is an important risk factor and its prevalence rises with age. A pharmacist run hypertensive review clinic has been piloted recently.<sup>95</sup>

Community pharmacists can collaborate with Community Mental Health Teams making domiciliary visits with the key worker to assist elderly clients and their carers with the management of medicines.<sup>96</sup> The main advantages for clients, their carers and key workers were increased contact with the pharmacist, improved compliance by providing monitored dosage systems for clients with confusion/memory problems and simplification of the regime.<sup>97</sup> The impact of domiciliary pharmacy visits on medicines management can include improvements in clients' and carers' knowledge, compliance and drug storage, reductions in adverse drug reactions, number of GP consultations and optimisation of clients' drug regimes.<sup>98-101</sup>

### 3. DISEASE PREVENTION

#### 3.1 CORONARY HEART DISEASE (CHD)

CHD is a major cause of death and ill health in Scotland. An estimated half a million people have CHD and, although mortality rates are declining, the Scottish mortality rate remains the second highest in Western Europe.<sup>55</sup> Prevention strategies focusing on life circumstances

and lifestyle are key to tackling this problem. Pharmacists in all settings have a role to play in helping to achieve the national target of reducing deaths from CHD in the under 75s by 50% from 1995 to 2010.<sup>3</sup>

Both community and hospital pharmacists have developed new roles that contribute to the prevention and treatment of CHD. Community pharmacies across Scotland constitute a useful network for dissemination of health-related information to the public for primary prevention, in addition to targeting specific high risk populations who may already be accessing health care for secondary prevention.

Pharmacists are closely involved in co-ordinating and delivering smoking cessation services, in screening customers for cardiovascular risk factors and in promoting healthy lifestyle decisions on diet, exercise and alcohol consumption. The national demonstration project "Have a Heart Paisley" includes:

- Community pharmacist identification of customers who may be appropriate for aspirin therapy in secondary prevention and lifestyle changes
  - Promotion of health messages through window displays on the high street
- Some community pharmacies provide a "health check" and some Boards are exploring how these services can become part of a more integrated community programme. In Lanarkshire, some community pharmacists run a



“Heartcheck” service supported through a Social Inclusion Partnership. Individual assessment involves: weight measurement; tobacco and alcohol consumption; cholesterol, diet; exercise and stress with subsequent agreement of an action plan with the client and referral as necessary.

### 3.2 CANCER

Now the leading cause of premature death in Scotland, cancer is a national priority. Annually, about 26,000 Scots are diagnosed with cancer and approximately 15,000 die from it.<sup>33</sup> The SE has set a target of a 20% reduction in the incidence of cancer between 1995 and 2010.<sup>3</sup>

Risk factors include smoking, ultraviolet light, dietary factors, obesity, occupation, infectious agents, drugs and genetics. Poverty, unemployment and other causes of ill health are also linked to an increased likelihood of cancer developing, delays in detection and poorer survival rates. Prevention usually requires people to make lifestyle changes, with health education and information to enable informed choices.

Smoking is now the main cause of preventable cancer in Scotland and the main cause of lung cancer.<sup>33</sup> The risk from smoking is so high that any reduction in smoking would have a rapid benefit on the incidence of a range of cancers.

Dietary factors may also be responsible for up to 30% of cancers.<sup>33</sup> The typical

‘Scottish diet’ is unhealthy, high in fat and low in fruit and vegetables. Pharmaceutical advice can help achieve the key national dietary targets endorsed by the Diet Action Plan ‘Eating for Health’<sup>77</sup> and “Towards a healthier Scotland”.<sup>3</sup>

### 3.3 COMMUNICABLE DISEASES

#### Vaccination programmes

Pharmacy contributes to the provision of the childhood vaccination programmes in a stronger way in Scotland than elsewhere in Britain. Each NHS Board area has a vaccine holding centre (Argyll & Clyde currently has three for geographical reasons) which provides:

- Greater efficiencies in the procurement and supply of vaccines
- Improved stock management
- More equitable distribution of vaccines throughout the country at times of shortage
- Better control of the cold chain
- More efficient tracking of suspect batches in case of “recall”
- One “port of call” for users of the service and provision of a better informed information system

In addition, community pharmacists participate in the “Yellow Card” suspected adverse drug reaction monitoring scheme which is of particular importance in the introduction of new vaccines such as Meningitis C.

# appendix three

## Managed Introduction of New Medicines

### 3.1 LICENSING OF NEW DRUGS

Drugs are unusual among newly introduced medical interventions in that they require to have undergone testing prior to licensing and introduction into practice. They must pass through three phases of trials before marketing authorisation is approved. The attrition rate is significant; of 5,000 products patented, one will successfully pass through these stages to be submitted for marketing (see Table 5).<sup>102</sup>

In the United Kingdom, drugs are available for use after receiving a license in Europe or the United Kingdom. A medicine, correctly termed a medicinal product, is made available in the United Kingdom following the granting of a Marketing Authorisation. Marketing Authorisations may be granted in two ways, either by United Kingdom Health Ministers or the European Commission under what is known as the “centralised procedure”.

Both the United Kingdom Medicines Act (1968) and the European Union

directive (EEC 65/65) require products to be of satisfactory quality, safety and efficacy. Both exclude cost and cost-effectiveness as criteria for granting a Marketing Authorisation. All products containing new substances of biotechnological origin are required to be authorised via the “centralised procedure”. This is also true of any new chemical entities for which there is “broad community interest”. In addition, manufacturers may choose the “centralised procedure” for any other new active substance.

Since the introduction of the European system increasing numbers of products are being marketed through the “centralised procedure”, approximately 60-70% of all new chemical entities in 1999 and this is expected to rise.<sup>103</sup> This issue is a reserved matter for the Westminster Parliament and drugs are licensed for the whole of the United Kingdom. Once a licence has been granted there are few central restrictions on use and a product

TABLE 5: Phases of Clinical Trials for New Medicines

Phase	Trial Subjects	Investigation
One	50 – 100 healthy volunteers	Determine if product is tolerated and behaves as predicted
Two	200- 400 patients	Drug at different doses, response investigated
Three	More than 3000 patients	Comparative studies against a placebo or licensed alternative treatment



with a United Kingdom license is normally available to be prescribed in NHSScotland.

Budgets are allocated from the centre to NHS Boards to be used to meet the health needs of the population and although the requirements for quality, safety and efficacy are satisfied during licensing, effectiveness and costs have not been considered. The SMC has been created within NHSScotland to undertake this work to ensure that maximum benefit from new medicines can be obtained.

### 3.2 THE SCOTTISH MEDICINES CONSORTIUM

The SMC first convened in October 2001 and meets monthly. Membership includes NHS staff in Scotland, physicians, pharmacists, a nurse, health economists, finance directors, Board Chief Executive, representatives of remote Boards, Association of the British Pharmaceutical Industry and patient and voluntary group representatives.

The Consortium was charged with making recommendations to all NHS Boards and their ADTCs about the status of all newly licensed medicines, all new formulations of existing medicines and any major new indications for established products. This advice should be given as soon as practical after the launch of the product involved. NHS Boards have been advised that under normal circumstances, no new product should

be used in their area until SMC makes a recommendation.

ADTCs in Scotland will require to determine how this national advice should be applied locally. This will include a gap analysis of current practice against the new guidance in the context of local service provision. ADTCs may also choose to monitor implementation through established clinical governance and audit frameworks.

The availability of SMC guidance will free ADTCs to enable them to concentrate on other responsibilities, including the review of use of existing medicines, implementation of national evidence-based guidelines, managing risks in the use of medicines and improving medicines use across the primary/secondary care interface.

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