Preventing Chronic Disability from Low Back Pain

RENAISSANCE PROJECT

Department of Social & Family Affairs
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The working groups responsible for Occupational Guidelines for the Management of Low Back Pain, Faculty of Occupational Medicine, Royal College of Physicians (UK) and the European Guidelines for the Management of nonspecific Low Back Pain on which the premise of this project is based.

The Board of the Faculty of Occupational Medicine of the Royal College of Physicians of Ireland and the Council of the European Union of Medicine in Assurance and Social Security (EUMASS) and the Health & Safety Authority who have agreed to endorse the European Guidelines.

Paul Morrin BA Mod. Econ., MSc for his expert statistical analysis.

The staff of the DSFA's Benefits Branch and Medical Review and Assessment Section for their efficiency in selecting and processing cases.

The DSFA's medical staff whose dedicated involvement in the project ensured the highest professional standards.

Minister Mary Coughlan, TD, whose personal interest in reducing chronic disability from low back pain enabled this project to be undertaken.
Minister’s Foreword

Back pain is not a new phenomenon, it has been known throughout recorded history – and in recent years there has been a marked increase in chronic disability resulting from low back pain.

Despite advances in health and safety legislation, ergonomics and other areas chronic disability from lower back pain is increasing.

The Renaissance Project set out to identify whether early intervention using international evidence-based guidelines would decrease the incidence of progression to chronic disability.

The Report of the Renaissance Project demonstrates my Department’s growing involvement in broadening its scope beyond the provision of income support.

The outcome of the project has shown that early intervention leads to a reduction in chronic disability resulting from lower back pain. It means a quicker return to work for those who are temporarily afflicted by lower back pain. This will be for the benefit of workers, their families who shoulder the burden of support, and employers.

There will also be benefits to society through cost savings in health care, reduced absenteeism from work and resulting decreased production and reduced numbers going on to long-term illness benefit schemes.

Implementing this report will require a multi-faceted response, and I look forward to working with the required coalition of professionals in a wide range of representative bodies to spread the message that early intervention works in dealing with lower back pain.

Finally, I would like to place on the record my gratitude to all those who participated in the project.

Mary Coughlan, TD

Minister for Social and Family Affairs
1. INTRODUCTION

Back pain is not a new phenomenon. Man has suffered from back pain throughout recorded history. There is no evidence that back pain has increased in incidence or severity throughout the ages. Despite this, however, in Western society, particularly in the past two decades, there has been a marked increase in chronic disability resulting from low back pain. In the hope of arresting, and perhaps, reversing this trend the Renaissance Project was conceived. The conduct, conclusions and recommendations of the project are outlined below.

2. DEFINITIONS

*Pain* The International Association for the Study of Pain defined pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”.

*Low Back Pain* (LBP) is pain in the lumbo-sacral region, buttocks and thighs.

*Disability* The World Health Organisation (WHO) defined disability as “any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being”.

*Chronic Disability* is disability lasting continuously for a period of 3 months or more.

*Diagnostic Triage* diagnostic tool for the differential diagnosis of LBP. See Appendix A for further details.

3. BACKGROUND

3.1 Problem Identified

Chronic disability, arising from LBP, is increasing. This trend is common to most industrialised countries and worryingly continues in spite of Health and Safety
legislation, improved ergonomic practice, automation and advances in technology and medical science.

In addition to the human suffering involved there are substantial financial implications involving healthcare cost, absenteeism, loss of production, insurance and sickness benefit costs. See Appendix B for increase in numbers and expenditure in social welfare illness-related schemes in Ireland. A proportion of this increase (approximately 27%) is due to musculo-skeletal problems, the majority of which is due to LBP.

This is not solely a medical problem, there are many players involved who need courageously, objectively and critically to reassess their particular roles in the management of low back pain. This presents a challenge to all of the players involved, the main players being:

- General Public, its Attitudes and Beliefs
- Person with LBP
- Medical Profession
- Legal Profession
- Employers
- Unions
- The Health and Safety Authority
- Insurance Industry
- Social Welfare Illness-Related Schemes

### 3.2 Re-Assessment of Role of Social Welfare Illness-Related Schemes

In facing its challenge the Department of Social and Family Affairs (DSFA) decided to re-assess its particular role in the management of LBP.
In appreciation of the facts that:

a) while necessary to the maintenance of the integrity of society - by providing income support for those who cannot work - illness benefit schemes can, by their nature, facilitate, reinforce and perpetuate disability,

b) the longer a person is off work with LBP, the lower their chances of ever returning to work, and

c) most people with simple LBP are able to return to work despite persistent symptoms, have a better outcome and less chance of re-injury than those who rest and avoid work,

the DSFA decided to address the problem in the acute, sub-acute and chronic stages by implementing the Renaissance Project, so called, so as to rekindle the Hippocratic Principle ‘first, do no harm’.

The acute stage was considered to be from 0 to 6 weeks, the sub-acute from 6 weeks to 3 months and the chronic for durations in excess of 3 months.

Priority was afforded to the acute stage in the first instance. We would attempt to ‘turn off the tap’ as it were, rather than ‘continuously mop up the floor’.

The sub-acute and chronic stages are to be addressed with job retention, rehabilitation and work re-integration schemes.

4. AIM OF PROJECT

The aim of the project was to determine if early intervention, using international evidence-based guidelines in the assessment of claimants with LBP, would decrease the incidence of progression to chronic disability. Statements from international guidelines are given in Appendix C.
5. METHOD
In the period January to June 2003 new Disability Benefit (DB) and Injury Benefit (IB) claimants, aged 20 to 50 years in Dublin and Cork who were certified by their General Practitioners to be suffering from LBP, were targeted for early intervention. Approximately 3,300 new claims were involved. The claims covered in the project areas account for approximately 34% of all new LBP claims for persons aged 20-50 nationwide in 2003.

A control group of cases, similar to those targeted in the project, for the period January to June 2002 was used to make some comparisons with the results of the project.

6. PROCESSING THE TARGETED CLAIMS
In processing the 3,300 claims in the project the following outcomes occurred:

- As expected, 1,700 claimants (51.5%) returned to work within 4 weeks of their own volition.

- Approximately 1,600 claimants were selected for early referral and invited to attend for medical assessment at 4 to 6 weeks from date of claim. (Hitherto, referral would have taken a considerably longer period and the problem would have gone beyond the acute stage).

- Interestingly, on receipt of invitation to attend for assessment, a significant proportion of the 1,600 claimants – 1,000 (62.5%) – came off benefit and returned to work.

- The remaining 600 (approximately) were assessed using the ‘Diagnostic Triage’ system of assessment.
7. MEDICAL ASSESSMENTS

As part of the project it was necessary to train medical assessors in the use of the Diagnostic Triage which categorises LBP into 3 main groups, to determine management.

The 3 groups are:

1. Simple Back Pain – majority of cases (approximately 95%), prognosis is excellent, with recovery expected in days to weeks.

2. Nerve Root Pain – 3-5% of cases, prognosis is moderate, with recovery expected in weeks to months, only a minority requiring surgery

3. Potential Serious Spinal Pathology – 1-2% of cases, which includes fractures, infections, inflammatory conditions and tumours. Prognosis depends on the diagnosis.

Cases in the Simple Back Pain category were considered for work capacity.

Fitness for work was determined not solely through categorisation as Simple LBP. Medical assessors also took into consideration other relevant factors such as the severity of the symptoms, type of work involved and potential for work restriction or accommodation in the workplace.

Cases in the other categories Nerve Root Pain and Potential Serious Spinal Pathology were considered to be unfit for work for varying periods, depending on the diagnosis.

Detailed records of medical assessments were held for analysis which included a breakdown by gender, work type and age group. See Appendix D.
8. RESULTS

The incidence of progression from the acute Simple LBP to chronic disability employing the method described above was reduced significantly; 64 per cent of the LBP cases assessed under the project were declared capable of work, compared to circa 20 per cent of all claimants with a variety of illnesses, including LBP, who were assessed under the DB/IB schemes in 2002. See Appendix E.

Under the DB/IB schemes where a person is found capable of work s/he can appeal against this finding. When this occurs the person undergoes a second assessment by a different assessor who can find the person capable or incapable of work. Under the project fewer people appealed against the capable decision than for all DB/IB claims in 2002 (44% versus 61%). Following the second assessment the percentage of people found incapable was 17% under the project. For all DB/IB claims in 2002 the percentage found incapable at the second assessment was 49%. See Appendix F.

In comparisons with a similar group over a similar period in the previous year (the control group) there was a circa 40% reduction in claims progressing to long duration. See Appendices G and H.

A secondary benefit of the project is that the reduction in duration resulted in a reduction in expenditure on the DB/IB schemes. If the patterns in expenditure in the project were retrospectively applied to expenditure in 2002 the estimated savings that would have occurred in DB/IB expenditure on LBP claims in 2002 are shown in Appendix I.
9. PROMOTING THE RENAISSANCE PROJECT

To assist in the dissemination of the guidelines on which the project is based and to encourage their implementation in other areas the author has:

- made the ‘Back Book’, published by TSO (the UK Stationery Office), available, free of charge, to DSFA customers and relevant organisations

- obtained commitments from
  1) the Board of the Faculty of Occupational Medicine of the Royal College of Physicians of Ireland
  2) the Health and Safety Authority
  3) the Council of the European Union of Medicine in Assurance and Social Security (EUMASS)

to endorse the European Guidelines on Best Management of Acute Low Back Pain, to assist in their dissemination and to encourage their implementation

- Made several presentations at conferences nationally and internationally to medical and relevant non-medical audiences

- Contributed to the media dissemination of the guidelines.

10. CONCLUSIONS

The Renaissance Project employing early intervention by the DSFA has resulted in a significant reduction in the progression to chronic disability from simple LBP. The impact of this early intervention in the acute stage should result not only in the improved health of LBP suffers in the long term but also in decreased health care costs, reduced absenteeism, increased production and significant savings in long-term illness benefit schemes.
11. RECOMMENDATIONS

Whereas, unilateral intervention by the DSFA has proved to be effective in reducing chronic disability from LBP, it is only part of a solution to a multi-faceted problem.

Ideally, to sustain and improve the effectiveness of early intervention a coalition of disability managers, mainly representing those players listed in 3.1 above, needs to be formed. This coalition should implement a universally agreed, evidence-based protocol for best management of LBP.

In this regard some initial progress has been made. The Health and Safety Authority, in association with the DSFA, is to launch a poster campaign to effect a change in the attitudes and beliefs of the general public regarding LBP. This initiative has been endorsed by the majority of the role players.

12. EXTENDING THE PRACTICE OF EARLY INTERVENTION

As a consequence of the results being achieved in the project it was decided to extend beyond June 2003 the processing of LBP cases in the manner described above. This involved the targeting of a further 8,400 cases in Dublin, Cork and Galway in the period July 2003 to June 2004. Approximately 3,700 of these cases have been referred for assessment and the findings to date have remained consistent with those in the project. (See Appendix J).
APPENDICES
APPENDIX A

APPENDIX A1: DIAGNOSTIC TRIAGE

LBP is very common, affecting 60-80% of the population at some stage.

Although rarely serious, it can, however, be the presenting symptom of serious spinal disease.

After excluding non-spinal causes of LBP the next priority is, therefore, to distinguish between non-serious and potentially serious causes of LBP.

This distinction is essential to determine the management of LBP.

Fundamental to this distinction is the use of Diagnostic Triage.

This diagnostic tool is internationally recognised and recommended.

It is based on detailed history taking and physical examination and designed to differentiate between LBP caused by possible serious spinal pathology, nerve root pain (sciatica) caused usually by disc prolapse (slipped disc) and Simple LBP.

Simple LBP is a term used to describe LBP which is not attributable to possible serious spinal pathology or nerve root pain.
APPENDIX A2: FORMS DESIGNED FOR USE IN PROJECT

The following 3 forms were designed to:

A. assist the medical assessors in the differential diagnosis of LBP

B. assess the degree, if any, of resulting disability and

C. achieve and maintain consistency.

A. DIAGNOSTIC TRIAGE

1. SIMPLE LOW BACK PAIN

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
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<td>![ ]</td>
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<tr>
<td>![ ]</td>
<td>![ ]</td>
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<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

- 20 –55 YRS
- L/S region, buttocks and thighs
- Mechanical in nature
- Patient well

2. NERVE ROOT PAIN

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>![ ]</td>
</tr>
<tr>
<td>![ ]</td>
<td>![ ]</td>
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<tr>
<td>![ ]</td>
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</tr>
</tbody>
</table>

- Unilateral leg pain worse than low back pain
- Radiates generally to foot or toes
- Numbness & paraesthesia in same direction
- Nerve irritation signs – SLR restricted
- Nerve compression signs – motor, sensory or reflex changes
3. POTENTIAL SERIOUS SPINAL PATHOLOGY

- Age: onset under 20 or over 55 years
- Violent trauma relative to age, e.g. fall from height in young patient or heavy lift by older person with osteoporosis could indicate fractures
- Constant, progressive non-mechanical pain
- Thoracic pain
- Past history – carcinoma, immune suppression (from use of steroids, or HIV)
- Systemically unwell, weight loss, infection
- Persisting severe restriction of lumbar flexion
- Widespread neurological signs & symptoms
- Structural deformity

3.1 INFLAMMATORY DISORDERS
(Ankylosing spondylitis & related disorders)
- Marked morning stiffness
- Persisting limitation of spinal movements
- Peripheral joint involvement
- Iritis, skin rashes (psoriasis), colitis, urethral discharge
- Family history
3.2 CAUDA EQUINA SYNDROME

- Difficulty with micturition
- Sphincter disturbance
- Gait disturbance
- Saddle anaesthesia (pelvic area)
B. DISABILITY ASSESSMENT: DEGREES OF RESULTING DISABILITY

The degrees of resulting disability are depicted on this ability/disability profile, which affords a readily visible and reasonably accurate portrait, not only of resulting disability but also and very importantly of, residual functional capacity. The degrees of disability are estimated as follows:

<table>
<thead>
<tr>
<th>Function</th>
<th>Normal (0-5%)</th>
<th>Mild (5-20%)</th>
<th>Moderate (20-50%)</th>
<th>Severe (50-75%)</th>
<th>Profound (75-100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Health</td>
<td></td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Learning/Intelligence</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Consciousness/Seizures</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Balance/Co-ordination</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Vision</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Hearing</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Speech</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Continence</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Reaching</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Lifting/Carrying</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Manual Dexterity</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Bend/Kneel/Squat</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Sitting</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Standing</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Climbing Stairs</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
<tr>
<td>Walking</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
<td>❏</td>
</tr>
</tbody>
</table>
C: MEDICAL REPORT ON BACK CONDITION

Surname: ____________________ Initials: ____________ PPS No. _______________

1. Is an appliance worn?
   (a) Type ____________________________
   (b) Has the customer been instructed not to remove it? ________________
   (c) If not was the appliance removed for the examination? ________________

2. (a) Posture ____________________________
    (b) Gait ____________________________
    (c) Spinal Curve ____________________________
    (d) Deformities ____________________________

   Is the customer able to:
   (a) Tiptoe? ____________________________
   (b) Squat? ____________________________
   (c) Kneel? ____________________________

3. Site of any muscle spasm elicited ____________________________

4. Pain
   (a) Site and nature ____________________________
      (b) Direction ____________________________
      (c) Site of local tenderness ____________________________

5. Movements (Should never be permitted beyond the limit of comfort)
   (a) Flexion (Measured to tibial thirds and inches from the floor) ____________
   (b) Extension ____________________________
   (c) Lateral flexion (fingertips in relation to popliteal crease) ____________
   (d) Rotation ____________________________

6. Is the customer able to touch toes sitting on couch?
7. Unassisted straight leg raising (lying down)

8. Measurements
   (a) Thighs
      (4 inches above upper border of patella)
   (b) Calves
      (4 inches below tibial tuberosity)

9. Central Nervous System
   (a) Knee jerks
   (b) Ankle jerks
   (c) Plantar responses
   (d) Sensory disturbance
   (e) Loss of power of dorsiflexion of hallux

10. General observations and or other physical signs not shown above:

    __________________________________________
    __________________________________________
    __________________________________________
    __________________________________________
    __________________________________________
APPENDIX B

GROWTH IN ILLNESS SCHEMES

The Department of Social and Family Affairs (DSFA) operates various illness-related schemes. These schemes are designed to:

- provide income support for people who, because of illness or injury, are unable to work or are suffering from a major disability or require constant care and attention
- afford compensation to people who are deemed to have suffered a ‘loss of faculty’ as a result of injury at work or contracting a work-related disease.

Some schemes are designed to cater for short-term illnesses, others for long-term illnesses or incapacity.

The number of recipients of benefits/allowances from these schemes has risen from 100,000 in 1992 to 206,137 in 2003.

The sharp increase in 1995 was due to the transfer of approximately 38,000 recipients of Disabled Person’s Maintenance allowance (DPMA) from the Department of Health to the DSFA, following its transfer the DPMA was renamed the Disability Allowance (DA).

As expected, the trend in expenditure follows the trend in numbers which is graphically depicted on the page opposite.
Table B: Number of Recipients and Expenditure on Illness Related Schemes, 1992-2002

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Recipients</th>
<th>Expenditure (€m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1,600</td>
<td>50,000</td>
</tr>
<tr>
<td>1993</td>
<td>0</td>
<td>100,000</td>
</tr>
<tr>
<td>1994</td>
<td>200</td>
<td>150,000</td>
</tr>
<tr>
<td>1995</td>
<td>400</td>
<td>200,000</td>
</tr>
<tr>
<td>1996</td>
<td>600</td>
<td>250,000</td>
</tr>
<tr>
<td>1997</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>1,200</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>1,400</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>1,600</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>2,000</td>
<td></td>
</tr>
</tbody>
</table>

![Graph showing the increase in number of recipients and expenditure from 1992 to 2002.](image-url)
APPENDIX C

STATEMENTS FROM INTERNATIONAL GUIDELINES FOR MANAGEMENT OF LBP

The following are some of the evidence-based statements derived from research and supported by strong evidence ***, that is, generally consistent findings in multiple, high quality scientific studies.

*** Most adults (60-80%) experience LBP at some time.

*** Care seeking and disability due to LBP depend more on complex individual and work-related psychosocial factors than on physical features or physical demands of work.

*** Most workers with LBP are able to continue working or return to work within a few days or weeks, even if they have some residual or recurrent symptoms, and they do not need to wait until they are completely pain free.

*** The longer a worker is off work with LBP, the lower their chances of ever returning to work. Once a worker is off work for 4 to 12 weeks, they have a 10 to 40% (depending on the setting) risk of still being off work at one year; after one to two years absence it is unlikely they will return to any form of work in the foreseeable future, irrespective of future treatment.

*** In-patients with non-specific LBP, X-rays and MRI findings do not correlate with clinical symptoms or work capacity.

*** Advice to continue ordinary activities of daily living (ADL) as normally as possible despite the pain can give equivalent or faster symptomatic relief, and leads to shorter periods of work loss, fewer recurrences and less work loss over the following year than “traditional medical treatment” (advice to rest and ‘let pain be your guide’ for return to normal activity).
APPENDIX D

PROFILE OF PERSONS MEDICALLY ASSESSED DURING THE RENAISSANCE PROJECT

Breakdowns of persons assessed by gender, work type and age group are given in the table below. Of those assessed, the majority were women, though somewhat less so than for DB/IB claims in general. A relatively low share of the total group were in work situations described as ‘heavy’ by the medical assessors. Finally, persons assessed were somewhat more likely to be in younger age groups than otherwise for DB/IB claims.

Table D: Profile of persons medically assessed under the Renaissance Project, January - June 2003; profile of all DB/IB claims (persons aged under 50), December 2002

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Persons</th>
<th>% of total assessed</th>
<th>All DB/IB claims, Dec. 2002</th>
<th>% of total DB/IB claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>216</td>
<td>39.9%</td>
<td>10,980</td>
<td>31.5%</td>
</tr>
<tr>
<td>Women</td>
<td>325</td>
<td>60.1%</td>
<td>23,891</td>
<td>68.5%</td>
</tr>
<tr>
<td>Work type</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>195</td>
<td>36.0%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Moderate</td>
<td>251</td>
<td>46.4%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Heavy</td>
<td>95</td>
<td>17.6%</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>127</td>
<td>23.5%</td>
<td>6,431</td>
<td>18.4%</td>
</tr>
<tr>
<td>30-34</td>
<td>112</td>
<td>20.7%</td>
<td>6,663</td>
<td>19.1%</td>
</tr>
<tr>
<td>35-39</td>
<td>107</td>
<td>19.8%</td>
<td>7,514</td>
<td>21.5%</td>
</tr>
<tr>
<td>40-44</td>
<td>99</td>
<td>18.3%</td>
<td>7,173</td>
<td>20.6%</td>
</tr>
<tr>
<td>45-50</td>
<td>96</td>
<td>17.7%</td>
<td>7,090</td>
<td>20.3%</td>
</tr>
<tr>
<td>Total assessed</td>
<td>541</td>
<td>34,871</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

OUTCOMES OF MEDICAL ASSESSMENTS (PROJECT VS ALL 2002 DB/IB CLAIMS)

For the table opposite it was not possible to do a comparison with the control group because it was identified retrospectively and detailed medical records had not been held for the claimants in the group. Comparisons had to be made against all types of (DB/IB) claims in 2002.

When claimants attended for assessment, the percentage of claimants found incapable was much lower for LBP cases examined under the project than those assessed in 2002 for all DB/IB illnesses. Conversely the percentage found capable of work was much higher. This pattern is maintained through the appeals procedure. See Appendix F.
Table E: Comparison of outcomes of assessments, all DB/IB in 2002 compared to project LBP cases
APPENDIX F

OUTCOMES FOR APPEALS CASES (PROJECT VS ALL DB/IB 2002 CLAIMS)

Data similar to that shown in the table opposite was not available for the Control Group. Comparisons had to be made against all types of Disability/Injury Benefit (DB/IB) claims in 2002.

The rate of appeals as a percentage of persons found capable is much lower under the project than for all DB/IB claims in 2002 (44 per cent vs. 61 per cent).

The pattern of outcomes described in Appendix E is maintained through the appeals procedure, as circa 49 per cent of appeals for all DB/IB claims assessed in 2002 were found incapable at a second assessment compared to 17 per cent of appeals under the project.
Table F: Percentage of capables (i.e., persons fit to work) that appealed and outcomes of appeals assessments, all DB/IB 2002 compared to project cases

<table>
<thead>
<tr>
<th>% capables that appealed</th>
<th>% found incapable at second assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>10%</td>
</tr>
<tr>
<td>10%</td>
<td>20%</td>
</tr>
<tr>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>60%</td>
<td>70%</td>
</tr>
<tr>
<td>70%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Outcomes of Assessments

Project  All DB/IB, 2002
APPENDIX G

ANALYSIS OF CLAIMS DURATION (PROJECT VS CONTROL)

See analysis on page opposite. For this analysis, a cut-off of 4 weeks has been used to compare claim durations for the project and control groups. The reason for this is that early intervention took effect only after 4 weeks. Therefore processing of claims in the first 4 weeks would have been broadly the same as in 2002.

The difference between the duration patterns for the project and control groups is statistically significant according to a chi-square test\(^1\). The fact that there is a reduction in longer duration cases is very significant as these cases tend to become chronic and they could stay on benefit for many years.

\(^1\) At the 95 per cent confidence interval
### Table G: Share of total project and control group cases by duration of claims (claims over 4 weeks duration)

<table>
<thead>
<tr>
<th>Duration of Claim</th>
<th>% of total Control Group</th>
<th>% of total Project Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 months</td>
<td>38.5%</td>
<td>55.2%</td>
</tr>
<tr>
<td>3 months</td>
<td>23.1%</td>
<td>16.7%</td>
</tr>
<tr>
<td>4 months</td>
<td>12.2%</td>
<td>8.3%</td>
</tr>
<tr>
<td>5 months</td>
<td>8.0%</td>
<td>5.2%</td>
</tr>
<tr>
<td>6 months</td>
<td>5.8%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>
APPENDIX H

OUTCOMES OF CALLS FOR ASSESSMENT
(PROJECT VS CONTROL)

Table H opposite shows how early intervention has an impact on termination of claims through submission of a final medical certificate by the claimant.

The percentage of claimants going off benefit by returning final certificates under project conditions has risen in the project group to 68.9% from 56.8% in the control group, with a corresponding drop in open claims at the end of the project period (to 20.8% in the project from 35.4% in the control group).

For all DB/IB claims (LBP and non-LBP) in 2002 the percentage returning final certificates as a result of being called for assessment was only 9%.
Table H: Breakdown by claim category for LBP claims in Dublin and Cork

<table>
<thead>
<tr>
<th>Claim Category</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open</td>
<td></td>
</tr>
<tr>
<td>Other Closed</td>
<td></td>
</tr>
<tr>
<td>Closed by Final Cert</td>
<td></td>
</tr>
</tbody>
</table>

- **Project Group**
- **Control Group**
APPENDIX I

ESTIMATED SAVINGS FROM PROJECT

Estimated savings in DB/IB expenditure for the year 2002, based on the findings of the project, for claims of duration up to and including six months, are given in the table below. The figures for expenditure in each of the months shown below are the costs of claims terminating in that month.

Under the heading ‘Control group expenditure’ the actual expenditure in 2002 is given. This is the amount of Disability Benefit/Injury Benefit paid to claimants.

The heading ‘Project expenditure’ is estimated by applying to the 2002 expenditure the patterns of claim duration experienced in the Renaissance Project in 2003. This then gives the estimated expenditure in 2002 had the project been in existence. The savings figure is the difference between the actual and the estimated expenditure in 2002.

**Table I:** Breakdown of project expenditure for LBP cases by claim duration, 2002, estimated savings based on evidence from the project

<table>
<thead>
<tr>
<th>Duration</th>
<th>Control Group expenditure 2002 (€)</th>
<th>Project expenditure (€)</th>
<th>Project savings (€)</th>
<th>% savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 Month</td>
<td>1,146,158</td>
<td>1,146,158</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Up to 2 months</td>
<td>772,464</td>
<td>1,107,061</td>
<td>-334,597</td>
<td>-43.3%</td>
</tr>
<tr>
<td>Up to 3 months</td>
<td>716,422</td>
<td>671,383</td>
<td>45,039</td>
<td>6.3%</td>
</tr>
<tr>
<td>Up to 6 months</td>
<td>1,928,825</td>
<td>1,075,914</td>
<td>852,911</td>
<td>44.2%</td>
</tr>
<tr>
<td>Total</td>
<td>4,563,869</td>
<td>4,000,516</td>
<td>563,353</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

These savings are principally due to the reduction in long duration cases.

The reason for increased expenditure for claims terminating in the second month is due to shorter duration of all claims under the project. (See Appendix G). In the control group such claims would have terminated after 3 or 4 months or perhaps a longer period.

In addition to the above savings, there were administrative savings of approximately €62,000 during the project period.
APPENDIX J

OUTCOMES OF SUBSEQUENT MEDICAL ASSESSMENTS UTILISING THE SYSTEM ESTABLISHED BY THE RENAISSANCE PROJECT

8,400 claims have been processed under similar conditions to the Renaissance Project in the period July 2003 to June 2004. The following outcomes have been recorded for these cases:

- 4,700 (55.7%) returned to work within 4 weeks, of their own volition.

- Approximately 3,700 were selected for early referral and invited to attend for medical assessment at 4 to 6 weeks from date of claim. (Hitherto, referral would have taken a considerably longer period and the problem would have gone beyond the acute stage).

- On receipt of invitation to attend for assessment, a significant proportion of the 3,700 claimants –2,500 (67.4%) – came off benefit and returned to work.

- The remaining 1,200 (approximately) were assessed using the ‘Diagnostic Triage’ system of assessment. 594 were found capable for work, 364 were found incapable due to LBP and the remainder were incapable due to other incapacities.

See table J on the following page. It gives a comparison of outcomes before the project, during the project and subsequent to but in accordance with the practice of the project.
Table J: Comparison of outcomes of assessments, project LBP cases and subsequent assessed LBP cases compared to all DB/IB in 2002.

<table>
<thead>
<tr>
<th>Outcome of Assessments</th>
<th>Incapable</th>
<th>Capable</th>
</tr>
</thead>
<tbody>
<tr>
<td>All DB/IB, 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project LBP cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsequent LBP cases</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Incapable: % of total
- Capable: % of total