



**Industrial Injuries Advisory Council commentary on
the commissioned review:**

**‘Assessing disablement under the Industrial Injuries
Disablement Benefit Scheme – a critical review and
international comparison’**

18 December 2014

Summary

1. This commentary accompanies a review commissioned by the Industrial Injuries Advisory Council ('the Council'), *Assessing disablement under the Industrial Injuries Disablement Benefit Scheme*, now published on IIAC's website. It summarises the background to the review and describes briefly what the reviewers did and what they found, placing the findings in context.
2. In brief, as a guide to decision-makers, Schedule 2 of the Social Security (General Benefit) Regulations 1982 prescribes levels of disablement for certain pre-defined categories and degrees of traumatic physical injury within the Industrial Injuries Disablement Benefit (IIDB) Scheme ('the Scheme'). The reviewers were asked to compare the ranking of assessed disablement for these scheduled injuries under the Scheme with those of schemes in other countries that aim, similarly, to compensate for loss of function.
3. Data were collected from seven other national jurisdictions. Various differences were identified, notably that: 1) fewer types of injury are scheduled in law in the UK than in the comparator countries; and that 2) a few scheduled injuries in the UK appear to be ranked higher (relatively more disabling) than elsewhere. These findings are discussed in the commentary below. Broadly, however, the Council has concluded that in most respects rankings within the UK's Scheme are in line with international comparators; such differences as exist are minor and on a scale at least as comparable to that seen more generally between schemes in other jurisdictions (other schemes are not perfectly consensual – all disagree with consensus some of the time and to a similar extent).
4. It should be noted that any views expressed in the review are those of the reviewers and not necessarily those of the Council. However, the Council comments here in a preliminary way on the limitations and possible implications of the review, and further steps being contemplated. An early priority will be to conduct a national comparison with the Armed Forces Compensation Scheme, to complement this international review.

Background

5. The amount of benefit paid to a qualifying claimant under the UK's IIDB Scheme depends on their assessed degree of disablement or loss of function relative to a healthy individual of the same age and sex (Social Security Contributions & Benefits Act 1992, Schedule 6).
6. To support consistency and equity within the Scheme, the underpinning legislation includes a schedule of Statutory Scheduled Assessments or table of injuries (Social Security (General Benefit) Regulations 1982 [SS(GB)R] Schedule 2), which describes prescribed levels of disablement for certain pre-defined categories and degrees of traumatic physical injury. Although in practice, depending on claimants' individual circumstances, there is flexibility, legally, to vary the percentage disablement from that prescribed in the Schedule, it provides the framework for setting the levels of awards.
7. The SS(GB)R Schedule 2 was drawn up many years ago for the purposes of the War Pensions Scheme. It remains essentially unchanged over many decades. It does not cover every type of injury for which a claim can be made, and indeed matches rather poorly the pattern of injuries presented to the IIDB Scheme by present day claimants. Also, Schedule 2 does not make reference, for example, to psychological injury, or to disablement from diseases prescribed under the Scheme. To assess disablement in non-scheduled impairments, trained medical assessors, armed with suitable guidelines, extrapolate from the SS(GB)R Schedule 2 making comparisons between the effects of tissue loss listed in the Schedule and the wide variety of impairments which are the subject of claims today.
8. To a varying extent, other countries with state schemes to compensate occupational illness and injury also have schedules of injury that enable decision-makers to adjudge the relative priority of claimants to receive benefit. Some of these schemes, in contrast to the UK, have tables which cover diseases as well as traumatic injuries and many (outwith the scope of this note) take into account other non-functional factors, such as loss of earnings or work incapacity, in deciding the scale of benefit awarded.
9. A fundamental requirement of any schedule supporting award for *loss of function* is that claimants are ranked equitably and in priority, such that those with the greatest losses through injury or disease receive the greatest benefit. This in turn requires that the elements in a table or tables of injury have a logically consistent hierarchy which guarantees equity, both vertically (ie ranking within different degrees or severity of the same condition) and horizontally (ie comparison between different conditions).
10. This process throws up several challenges. Thus, while it may be obvious, for example, that traumatic amputation of a limb will cause greater loss of function than that of a digit, it is less straightforward to rank a chest injury relative to an injury of the limb, or to equate the effects of disease to those of injury and decide how, say, progressive breathlessness should be ranked relative to a given instance of physical injury.

11. Most schemes, including the IIDB Scheme, attempt only to compensate that which is caused by occupation, making offsets for disablement that is pre-existing or non-occupational. On the other hand, many schemes, including the IIDB Scheme, allow for interactions (e.g. the exacerbation of a pre-existing non-occupational condition by a recognised occupational injury or disease). Finally, many schemes, including the IIDB Scheme, allow the functional effects of different occupationally-related illnesses and injuries to be added together. In the UK, these aspects are set out in statute (e.g. SS(GB)R 1982 Regulation 11). However, they too can be challenging to apply, as judgements are required about the separate and relative contributions of different causal agents to functional loss and how these should be added or subtracted.
12. Because such judgements can be complex and difficult, the potential for a decision to be overturned at appeal is always present, while the possibility exists for potential inconsistency in decision-making.

Commissioned review

13. Against this background, and as a first step in a much broader review of the process by which disablements are assessed under the Scheme, in 2013-14 the IIAC used its small annual research budget to commission a review involving an international comparison of state-supported schemes that award benefit or compensation for occupational injury and occupationally-related disease.
14. Inevitably, schemes in other countries vary in their aims and main focus, as well as their scope, complexity, procedures, use of resources, social context, specific rules (e.g. for handling effects of treatment), qualifying terms and other operational factors. To achieve some element of comparability with the UK's position, the commissioned review restricted its attention only to those schemes which (whatever the other qualifying conditions and rules) adopted *loss of function* as the primary basis for award of benefit and which also had written schedule(s) by level and type of injury or disease to define the ranking of disablements.
15. The two main aims of the review were to:
 - map the relative ranking of injuries scheduled within the IIDB Scheme; and
 - draw systematic comparisons with tables of injury or disease in other jurisdictions.
16. In principle, such information might be used to test whether the IIDB Scheme has a similar list and coverage to other comparable schemes; how much international agreement there is regarding the relative functional impact of different types of injury; and whether the IIDB Scheme is broadly in line with other similar schemes in its relative ranking of injuries, or whether any classes of injury appear to be ranked anomalously.
17. For simplicity, this commentary focuses on these two main questions of interest. Additionally, however, as outlined in the commissioned review, a

number of secondary questions were identified, several of which were only answerable in brief or not answerable within the timeframe and resources of the review. These included:

18. whether the schedules of other schemes included scale points that were anchored by reference to objective independent measurements of function;
 - how other countries approached issues of aggregation and off-setting the functional effects of pre-existing non-occupational injuries and health problems;
 - how arrangements for assessment and review of claimants differed between schemes (e.g. in terms of evidence collected, process and documentation, role and qualifications of the players, process times, procedures for review, ratio of adjudication to benefit costs).
19. The review was conducted by Dr Rüdiger Stilz and Adrian Baker of RR Stilz Occupational Medicine Consultancy Limited and is available on the IIAC website. This commentary attempts to summarise the broad content and main conclusions of this technical report.

What did the reviewers do?

20. From among a list including Commonwealth, European Economic Area (EEA) countries and Switzerland, comprising of 64 countries, they narrowed the field to those schemes with sufficient publicly available particulars, and to those that were government or state funded and based upon compensating loss of function as the endpoint (14 countries). Among these, data were finally collected from seven jurisdictions. For the remainder, either responses were not supplied in the review period or there were other ineligibility considerations – for example: exclusion of compensation tables that were identical between different schemes (e.g. since Great Britain and the Republic of Ireland share the same table, the latter was not considered); exclusion of schemes giving compensation based on loss of function for work, rather than general loss of function. The schemes analysed were:
 - the Workers' Compensation for Permanent Injury in Denmark;
 - the WorkCover Compensation for Permanent Impairment Scheme from New South Wales in Australia;
 - the Italian Insurance for Employment Injuries Scheme;
 - the Workers Compensation for Permanent Clinical Impairment scheme from Alberta in Canada;
 - the Swiss Accident Insurance Scheme;
 - the Finnish Employment Accident Insurance Scheme; and
 - the Accident Insurance Scheme of Luxembourg.
21. Documentation from these schemes was assembled, either through website searching or through contact with key informants and the schemes' offices and personal interviews. Injury tables were systematically compared; those not in English were translated beforehand.

22. The first part of the report compared a range of characteristics of schemes, including rules on assessing injury severity, factors determining levels of compensation, factors influencing eligibility and processes of assessment, and administrative information from schemes. Similarities and differences in comparison to the British Scheme were highlighted.
23. Subsequently the report compared the level of assessments for injuries in SS(GB)R Schedule 2 with those in the comparator schemes. A number of differences were found between schemes that posed challenges to the review team. For example:
- 1) the lists of injuries covered by statute were not identical between jurisdictions;
 - 2) the severity of injuries was not always defined in common;
 - 3) some schemes specified a discrete value for percentage disablement arising from a particular injury whereas others specified a range (making equitable comparison problematic);
 - 4) schemes differed substantially in the absolute percentage disablement they awarded a given injury (Alberta, for example, ranks injuries at a relatively low level of disablement, whereas UK rankings are higher).
24. These and other differences forced the reviewers to elaborate rules by which comparisons could be made. Because *absolute* levels of percentage disablement varied so much between schemes, the reviewers compared the *relative rankings* of injuries in each scheme. Other factors required algorithms to be developed, to identify what was 'consensus' across schemes and where 'outliers' were to be found.
25. Where the ranking of an injury in the UK's Scheme was out of line with its average ranking in other jurisdictions, a new ranking was derived using logical inference and a mathematical process (a so-called 'rank imputation' algorithm), the details of which are described in the methods section of the report. Then, using the percentage disablements in SS(GB)R Schedule 2 as the guide, new ranks were assigned alternative percentage disablements by interpolating values commensurate with their new positions.
26. Finally, the reviewers identified some 'injuries' that are not tabled in SS(GB)R Schedule 2 but appear in the schemes of other countries and which feature in assessments made under the IIDB Scheme. These included post-traumatic stress disorder, depression, impaired lung function, various brain syndromes, and neurological deficits. Again, a process of iterative logical inference was followed. This resulted in a new rank order including SS(GB)R Schedule 2 injuries alongside these non-tabled conditions.

What were their main findings?

27. Schemes differ in terms of their organisation, provisions for assessment, ways of assessing disablement, and tables of scheduled injuries (including their relative rankings). However, they share many principles in common and in many respects the UK is not unusual or exceptional in comparison.

28. The UK IIDB Scheme is notably different, however, in recognising only 55 injury types. This is substantially fewer than other schemes, such as Alberta (175), Denmark (474) and New South Wales in Australia (1255). The UK Scheme was originally based on physical injuries encountered during war. Certain schemes have based their lists on the UK list but have since grown and introduced other injuries. Some schemes base their lists on the very detailed *American Medical Association Guides to the Evaluation of Permanent Impairment*.
29. A further point of difference which the reviewers highlighted is that the UK has a higher qualifying threshold for payment (generally 14% disablement) than the other schemes (e.g. 10% in New South Wales, 1% in Luxembourg, and as low as 0.4% in Alberta).
30. Table 2 in the Commissioned Review Report maps the rank order of IIDB-scheduled physical injuries by percentage disablement. Tables 8 and 10 concern ranks that are outlying relative to the consensus of other schemes.
31. The reviewers identified four injuries that appear to be anomalously ranked in the UK relative to most other schemes (major outliers):
- severe facial disfigurement;
 - double amputation of the feet proximal to the metatarsophalangeal joints;
 - amputation of the toes, bilaterally, distal to the proximal interphalangeal joints;
 - amputation of one foot resulting in an end-bearing stump.
32. For the first three, the reviewers' model would imply that consensus favours lower percentage disablements than currently scheduled (down by 10-17%); and for the last of these, a somewhat higher value (up by 9%). In comparison with the IIDB Scheme, other schemes rank lower limb amputations consistently lower than upper limb ones and this may partially explain how the identified outliers have arisen. Minor differences in imputed rank position were proposed by the reviewers for numerous other scheduled injuries, as set out in Table 10 of the report.
33. About 11-15% of pairwise rankings between the UK and other schemes were significantly discrepant, but other schemes were out of line with one another to a similar extent to this (Table 9).
34. Table 13 of the report compared the rank order of tabled injuries in the IIDB Scheme with the ranks, or rank ranges, of assessments for injuries and health effects recognised by other countries but not the UK. It showed, for example, that 'severe depression' (which is non-scheduled in the UK) occupies a similar rank position in other schemes to that of the UK-scheduled condition of severe noise-induced hearing loss.

Discussion

35. Despite the reviewers' best efforts, consensus internationally remains an elusive target to measure. The scientific model developed and adopted by the

reviewers provides a framework for bridging the divide between schemes that share a similar aim, but it must be stressed that schemes are not perfectly consensual with the UK as an outlier; instead, all disagree with one another some of the time and to a broadly similar extent. Care is required not to minimise significant underlying differences.

36. It is also possible that some differences might be explained and justified with further information. For example, schemes did not supply a definition of 'severe facial disfigurement' that could be tested for comparability, but this injury was originally scheduled in the UK for war veterans who suffered horrific and extreme war injuries; this may account for the high scheduled level of disablement relative to countries where the term covers less severely injured people. An audit of use in practice would be needed to gain a fuller understanding. On the other hand, 'double amputation of the feet proximal to the metatarsophalangeal joints' should have a common meaning across jurisdictions and disparities in relative level of award may be harder to reconcile and more worthy of investigation.
37. A third consideration, at a practical level, concerns the importance of the differences identified by the review. For minor changes of imputed rank position, regulatory amendment of SS(GB)R Schedule 2 would be hard to justify, particularly where this would not alter the implied level of award (which would often be the case), or would be trivial after the provision for rounding of assessments within the IIDB Scheme is applied. All schemes, including the IIDB Scheme, provide leeway for a medical assessor to award a different disablement than scheduled, where this appears warranted in their clinical judgement, and this provides a further argument against attempting to fine-tune between current and imputed alternatives.
38. A fourth consideration is how securely any change would be grounded in science. Concepts of disability, disablement, and loss of function, and their impact on people's lives, are shaped to an extent by their personal circumstances as well as the societies in which they live. The discrepancy between the different jurisdictions was generally not large and with as much variation for IIDB as for other schemes. The differences may have a justification that could not be identified within the constraints and resources of the review (e.g. they may be based on disputable ideas of best practice, case law, historical precedent, or political preferences), or they may be random. Assessment tables are not always perfectly grounded in science, given the challenge identified at the outset in comparing dissimilar patterns of injury and qualitatively different types of lost function.
39. Fifthly and importantly, the review focused on the current table of injuries within the UK, as requested. However, many injuries encountered nowadays lie outwith this list and practice regarding them varies in ways that cannot be captured without broader terms of reference (and a larger research budget). Related to this, recent steps to modernise the UK's Armed Forces Compensation Scheme raise a wider question about transferable messages on how to improve the relevance of the IIDB Scheme to the modern profile of injuries and modern thinking on disability assessment. In this sense, the

comparison task which was set for the reviewers could usefully be extended in further work, to set the findings in a wider context.

Next steps

40. Broadly, the Council concludes from the review findings that in many respects the IIDB Scheme is in line with international comparators that have a similar aim; such differences in relative ranking as exist are relatively minor, and on a scale at least as comparable to that seen more generally between schemes of other jurisdictions.
41. An area that merits further consideration, however, is whether the IIDB Scheme would benefit from a fuller schedule of injuries, as other countries have.
42. A second, is whether use can be made of the information (or process) applied to construct Table 13 of the report. A potential use, considering the example of 'moderate depression' (unscheduled in the IIDB Scheme) would be to note that in rank order in Table 13 it can be found between 'loss of vision of one eye' and 'loss of 2 fingers' (which are scheduled in the Scheme); possibly, therefore, it can be imputed a percentage disablement¹ that is based on the values for these other two injuries and its rank in relation to them. This complex matter requires further consideration. However, the example serves to illustrate how an international comparison of ranks might in principle be used to provide useful pointers for UK practice.
43. A third area of action, outwith the reviewers' remit but relevant to the Council, will be to explore how the UK's Armed Forces Compensation Scheme is changing, and to make national comparisons that complement the findings of this commissioned international review.

The Council wishes to thank the reviewers for their efforts.

¹ Mental illness is not scheduled within the Scheme, but the psychological sequelae of injuries and prescribed diseases are potentially compensable.