Development of a National Intermediate Care Evaluation Tool For Wales

Project Report
May 2008

Introduction

This report describes the journey undertaken to develop a relevant and meaningful service evaluation tool for Intermediate Care Services in Wales. The launch of the evaluation tool, its ongoing development, the roll out campaign and the subsequent service improvement work is all grouped under the banner of SPICE.

It is indicative of the genuine desire amongst health and social care practitioners and managers to improve service user experience and outcomes. The journey itself is evidence of the power of Community of Practice methodology in harnessing knowledge, enthusiasm and commitment to bring about practical solutions and continuous quality improvement.

Participants in the project believe that effective Intermediate Care can play a significant part in the delivery of the vision of world class healthcare as described in Welsh Assembly Government documents such as Designed for Life 2005, the National Service Framework for Older People in Wales 2006 and Improving Health and Management of Chronic Conditions in Wales 2007.

The consistent and effective use of an Intermediate Care Evaluation Tool for Wales has the potential of providing a firm evidence base of what does and what doesn’t work for health and social care communities in the Principality and for influencing future strategic decision making.

Background & Context

The South East Wales Community of Practice (CoP) for Effective Discharge Planning was established in June 2005, supported by the National Leadership and Innovation Agency for Healthcare (NLIAH). In accordance with standard CoP methodology (Laver & Wenger, 1991), members from health and social care sectors identified their own ‘hot topics’ and were facilitated by the NLIAH Change Agent Team (CAT) to debate the research and evidence supporting each topic, and to share their own experiences and good practice examples.

The use of such methodology in the public sector is aimed at harnessing the tacit knowledge of committed practitioners and supporting combined effort in innovation. The outcome is to support social movement to achieve sustainable change and service improvement (Bate et al, 2005).

The CoP identified that the development of effective Intermediate Care Services has the potential to significantly impact on Delayed Transfers of Care (DTOC) from acute settings. A workshop was held which examined the literature available at that time and focused on the ‘Evaluation of Intermediate Care for Older People’ by Godfrey (2005).

CoP members identified with many of the findings and concurred that in their experience Intermediate Care Services in South East Wales had often been developed quickly in response to winter pressures and the injection of short-term funding. There was little evidence of strategic planning and commissioning in response to identified community needs and across the continuum of Intermediate Care provision.

Evaluation of those services had focused reporting levels of activity in order to secure longer-term funding rather than on whether the service provided actually met service user needs. In response to the debate a small task and finish group was established to explore more effective evaluation of behalf of the wider CoP.
Definition of Intermediate Care

Any discussions on Intermediate Care can become stalled in debate with regard to defining exactly what is meant by Intermediate Care. The task and finish group agreed at an early stage that for the purpose of developing an outcome based evaluation tool, the Department of Health definition as adapted in Welsh Health Circular (2002) 128 was acceptable:

“Intermediate Care should be regarded as describing services that meet all the following criteria:

- Are targeted at people who would otherwise face unnecessarily prolonged hospital stays or inappropriate admission to acute inpatient care, long term residential care, or continuing NHS inpatient care.
- Are provided on the basis of a comprehensive assessment, (as defined within the Unified Assessment & Care Management system), resulting in a structured individual care plan that involves active therapy, treatment or opportunity for recovery. The initial assessment should identify the appropriate clinician with managerial responsibility and the most appropriate care coordinator.
- Have a planned outcome of maximising independence and typically enabling patient/users to resume living at home. This approach will be dependent upon the development and implementation of joint, multi-agency service access criteria.
- Are usually time-limited, often no longer than six weeks and frequently as little as 1-2 weeks or less.
- Involve cross-professional working and agencies working in partnership, with a single assessment framework, single service access criteria, single professional records and shared protocols."

Evaluation Requirements

Members of the task and finish group set out, using the Institute of Healthcare Improvement’s Model for Improvement, to establish exactly what the proposed evaluation tool would need to measure.

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<th>Model for Improvement</th>
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<td>What are we trying to accomplish?</td>
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<td>How will we know that change is an improvement?</td>
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<td>What changes can we make that result in improvement?</td>
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It was agreed that what members wanted the tool to accomplish was the delivery of information that would help practitioners and managers establish whether they were providing a system of health and social care which achieved the defined outcomes of Intermediate Care Services.
Such information would therefore need to work at different levels:

1. Impact on the individual service user: have we met the individual’s identified needs and their desired outcomes?
2. Impact of the service provided: is this Intermediate Care Service achieving what it was intended to achieve, and if not what changes do we need to make to improve?
3. Impact on community strategy: have we planned and commissioned services across the continuum of care to effectively meet the needs of our health and social care community and where are the gaps we need to address for maximum effect?

The proposed model for the evaluation tool was developed as illustrated below:

![Evaluation Tool Model]

**Literature Review**

In order to avoid duplication of effort, the task and finish group undertook a review of existing Intermediate Care evaluation tools, the intention being to utilise or adapt these rather than to ‘start from scratch’.

The review highlighted that there are indeed a variety of validated Intermediate Care evaluation tools available, but none of those viewed adequately addressed all the elements of the model above.

For example the Medway Model was considered a valuable tool for strategic needs assessment; [http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics?OlderPeoplesServices/OlderPeopleArticle/fs/en?CONTENT_ID=4002288&chk=KTYh5B](http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics?OlderPeoplesServices/OlderPeopleArticle/fs/en?CONTENT_ID=4002288&chk=KTYh5B)
As was the King’s Fund Tool;  
http://www.kingsfund.org.uk/resources/publications/mapping_local.html

However, many of the elements described were felt to already have been addressed via local health and wellbeing strategies and therefore could represent duplication.

The Department of Health Evaluation Tool provides specific measures against its defined Intermediate Care outcomes;  
http://www.changeagentteam.org.uk/index.cfm?pid=200

The Change Agent Team in England has adopted a Balanced Scorecard approach focusing on Continuous Quality Improvement measured in four key areas:

1. Client outcome and satisfaction
2. Care Outcome
3. Process
4. Cost effectiveness

Studies undertaken by Nuffield/University of Leeds;  

Keele University also identified critical areas for strategic outcome based evaluation;  
http://www.interatedcarenetwork.org/publish/articles/000015/article.htm

**Design Process**

The task and finish group agreed that it was feasible to extract elements from all of these models and incorporate them into a tool which would match their model for evaluation. In addition however, the service improvement tool developed in Wales would need to include information required for current reporting mechanisms, for example for 'Wanless monies', in order to avoid adding to perceived bureaucracy.

Although open to participants from across the South East Region of Wales, the task and finish group rapidly evolved to focus on the Gwent area and key leads were established from those five boroughs as detailed below.

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<th>AREA</th>
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<td>Torfaen LHB</td>
<td>Chris Hill</td>
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<tr>
<td>Newport LHB</td>
<td>Jan Corbett</td>
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<tr>
<td>Blaenau Gwent LHB</td>
<td>Gill Heslop</td>
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<tr>
<td>Monmouthshire LHB</td>
<td>Ann Godden</td>
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<td>Caerphilly LHB</td>
<td>Jo Beecham</td>
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Chief Executives of each of the Local Health Boards and Directors of Social Services for each of the coterminous local authorities signed up to releasing these lead task group members for regular meetings and developmental work, as well as participation of their teams in the subsequent pilot studies.

The local NHS Trust into which all the five Gwent boroughs feed was also invited to participate in the pilot, as this would have facilitated more direct analysis of impact on admission and readmission rates and average length of stay. However, the Trust was unable to engage with
the study at the time, and it is acknowledged that the results are therefore, not as comprehensive as originally envisaged.

With support from CAT, a Data Analyst and Software Developer from within NLIAH, the group developed a Minimum Data Set (MDS) which focused on outcomes for individual service users and provided information which could then be collated to produce service and strategic evaluation reports.

The MDS included anonymised information on:

- Patient age and gender
- Referral source and type of Intermediate Care Service requested
- Reasons for referral rejection
- First contact and initial assessment
- Goals set and achieved
- Dependency scores on referral and discharge from the Intermediate Care Service
- Length of stay in the Intermediate Care Service
- Discharge destination from Intermediate Care Service
- Readmission to secondary care within one month of discharge from Intermediate Care

The MDS was tested for a month by the locality teams to ensure that the key elements and language were user-friendly. Preparations were made to establish a secure electronic database on the NLIAH Web Portal so that the full pilot could be undertaken electronically. An Expert Panel was established to provide external overview, advice and scrutiny. The Panel drew on the expertise of other Welsh service improvement agencies, local clinicians, advisory bodies and policy leads.

**Pilot Study Methodology**

Intermediate Care Teams from each of the five boroughs of Gwent agreed to take part in the formal pilot study:

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<th>Participating Teams</th>
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<td>Caerphilly Reablement Team</td>
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<td>Newport Reablement Team</td>
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<td>Blaenau Gwent Reablement Team</td>
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<td>Torfaen Intermediate Care Team</td>
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<td>Monmouth Reablement Team</td>
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<td>Caldicott Reablement Team</td>
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<td>Mardy Park ‘Step Down’ Facility</td>
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<td>Gwent NHS Trust Acute Clinical Assessment Team</td>
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The six month pilot study was undertaken between 1st July 2007 and 31st January 2008. During this period the MDS was completed for every service user who came into contact with each of the Intermediate Care Services.

Whilst there was general agreement that dependency scores are a valid mechanism for demonstrating that independence has stabilized or increased as a result of Intermediate Care
intervention, there was considerable debate as to which tool should be used for the pilot study. Each team used a different tool and there was concern regarding the validity of these if transposed for different client groups.

In order to achieve consistency in the pilot results a hybrid tool was developed, but it was accepted that this was not ideal. The hybrid tool was not validated and could be considered a flaw in the methodology.

As the pilot was a quality audit ethical approval was not required. The NLIAH support team had regular meetings with the pilot services throughout the six months, undertook site visits on request in order to troubleshoot issues with the database, provided telephone support and where necessary funded additional short term administrator time.

At the end of the six month period a two-day workshop was held during which representatives from each service met with the NLIAH support team to:

- Validate the analysis undertaken from the data collected
- Provide feedback on the Tool design
- Provide feedback on the pilot experience in general

**Pilot Study Findings**

**Validation of analysis**

In total more than 2000 records had been entered into the system over the course of the pilot study, populating up to 53 fields of data.

It was identified early in the pilot that there were errors in the dataset and that more error checking needed to be built into the system. For example, some dates were inconsistent within the dataset leading to inaccuracies regarding:

- Lengths of time in service
- Lengths of stay for rejected referrals

Further inconsistencies in the data were identified including the recording of referral acceptance plus listing of a reason for rejection.

In spite of these weaknesses, the data produced was able to provide useful operational information as illustrated in the charts below:
Referral Patterns

The services taking part in the evaluation received on average 71 referrals per week, though this could vary between 43 and 100 in normal circumstances.

Referral rates to all services dipped significantly over the Christmas period, with further investigation indicating that this was due to a combination of service accessibility (some did not operate over the holiday), traditional secondary care practice of not discharging at this time, and lapses in data collection due to limited resources.

Across the pilot area 80% of referrals were from the following sources:

- Hospital other professional (usually ward nurse) – 37%
- Community GP – 28%
- Community Social Services – 14%

The remaining 20% was made up from community therapists, districts nurses and other Intermediate Care Services.
As the majority of services involved in the pilot were Reablement focused, it was not surprising that the most common reasons for referral were to maximise independence, rehabilitation, prevention and maintenance.
Length of Time in Intermediate Care Service

The length of time between accepting a referral to discharge from the Intermediate Care Service varied according to the nature and purpose of each team involved.

From the information gathered in the pilot study it was not possible to effectively benchmark ‘like with like services’ due to variety of service provision and their respective eligibility criteria. It is anticipated that wider participation in the evaluation programme would permit this if organisations conclude that such a facility would add value.

The data relating to compliance with Estimated Date of Discharge (EDD) from the Intermediate Care Services was not consistently recorded and is therefore unreliable. The general view gained was that most Reablement teams were discharging people from their service on or before the EDD if goals had been met. One team discharged on average 3.5 days after the EDD and needed to undertake a more in-depth review in order to understand the reason behind the discrepancies.

Demonstrated Impact on Individuals

Whilst the use of dependency scores pre and post intervention, and the recording of goals achieved were deemed to be appropriate for individuals receiving Reablement services, it is acknowledged that such information is not relevant for acute assessment or rapid response teams and the fields on the evaluation tool need to be amended to reflect this.

All the Reablement Teams and the Step-Down Service demonstrated an improvement in dependency scores that is, an increase in independence. For one team there was less confidence in the statistical significance of the increase. However, this may have been due to flaws in the dependency tool itself, as discussed under the methodology.

All service users had met their set goals, though there was debate amongst the teams regarding variation in the practice of goal setting which will be examined further in the roll-out and ongoing development of the tool.

Of the total number of individuals included in the pilot study 30% remained home with no further support, 25% were assessed with no further action required, 10% remain home with same care package, 9% were admitted to an acute bed and 7% were referred to secondary care previously provided, for example out-patient follow up.

The 25% assessed with no further action required were identified as predominantly arising in the Acute Clinical Assessment Team. The findings alerted the team to the possibility of a significant proportion of referrals being ‘inappropriate’ and further analysis was undertaken to highlight areas for service improvement work.

Feedback on Evaluation Tool Design

The general feedback from the teams on the Evaluation Tool was positive and there was a consensus that it already gave more standardised and systematic information than previous mechanisms.

That said, it was agreed that providing further detail, without making the Tool unwieldy had the potential to furnish teams with even more useful information for both health and social care providers and commissioners, whilst removing the duplication currently required in reporting to different authorities and regulators.

The teams gave detailed recommendations for amendments, including a new section to record actual interventions by specified team members. All of these have been included in the latest version of the web-based tool.
Screen shots of the SPICE tool:
The updated version of the Tool also includes blank fields that can be tailored for individual services to reflect innovation or specialist functions. The feedback indicated that the original tool leaned towards Reablement type Intermediate Care Services and was less relevant for rapid response type services aimed at avoiding unnecessary hospital admission. The updated version therefore contains a broader range of data collection, and this combined with the ability to tailor fields for specialist services will address the identified weaknesses.

Some teams experienced frustration with the slow speed of data entry during the pilot study and this has since been addressed.

**Reporting Mechanisms**

The teams highlighted that in order to comply with current reporting requirements the Tool would need to be capable of producing monthly, quarterly and annual reports.

It was agreed that users of the Tool will need to access service level reports and borough-wide reports. The NLIAH developers have subsequently designed a mechanism which will automatically generate reports and graphs that can be easily copied and inserted into formal reporting documents.

It was also agreed that NLIAH should use anonymised information to feedback on trends across Wales, identify issues that required a national approach to problem solving and to influence Welsh Assembly Government in the development of Intermediate Care Policy.

In order to ensure easy access for all types of teams, with varying degrees of resources it was identified that the Tool should be available not only in the current web-based version but also in paper format and direct input via mobile electronic devices such as a PDA.

**The Experience of Participating in the Pilot**

There is no doubt that participation in the pilot study did require the teams involved to undertake additional work. They are to be commended for the enthusiasm and commitment they showed to the project, particularly during times of peak demand for their services.

Feedback from the teams indicated that despite the frustrations, they found the experience to be positive and they felt that they had contributed to the design of a Tool that can be used to support the systematic development and improvement of Intermediate Care Services both in Wales and further afield.

**Information Governance**

The Tool is hosted on the NLIAH Web Portal, which is accessible from any internet capable computer across any health and social care organisation.

The NLIAH portal has a managed user structure with new members activated by a group of User Managers based in the organisations accessing it. The Portal is entered via password protected login and is a ‘Secure Socket Layer’ (SSL) encrypted secure site.

The dataset is stored in a MYSQL 5.01 database in accordance with the ‘Information Technology Infrastructure Library’ (ITIL) structure for audit, access control and backup.

With regard to technical data protection the NLIAH design team met with the appropriate information governance leads in its host NHS Trust (Abertawe Bro Morgannwg University NHS Trust) and in Informing Health Care (IHC) in order to ensure satisfaction with Caldicott compliance, system administration and security and access.
In order to ensure national strategic congruence the team has secured approval from the Welsh Information and Governance Standards Board (WIGSB) and has established ongoing dialogue with IHC, Health Solutions Wales and SAIL (University of Swansea). Any future development of the Tool will be referred back through these governance mechanisms.

IHC recommended that where possible that the Tool either reduce or remove free text fields in order to reduce the risk of staff writing patient identifiable information. Where free text fields are included there are now clear instructions reminding users not to input any patient identifiable information.

A further risk assessment on the tool was completed during final user testing, prior to the launch in May 2008.

**Conclusions**

The Intermediate Care Evaluation Tool pilot study yielded useful information that had not previously been collected in such a systematic manner. Its strengths lay in the focus on purposeful Intermediate Care intervention and on outcomes for individual service users.

There were weaknesses both in the technological aspects of the data collection system and in the design of the minimum data set itself. The improvements made as result of the pilot mean that the Tool is now more user-friendly, comprehensive and relevant to both service providers and commissioners.

The methodology used to develop the Tool was as important as the product itself. It successfully harnessed the tacit knowledge, passion and commitment of managers and practitioners working in direct contact with service users. As such its designers can be confident that it is practical, relevant and has real potential to support the development of world class Intermediate Care Services in Wales.

It is acknowledged that any system is only as good as the people who use it. Use of the Tool will be entirely voluntary and future success will depend on continued review, update, tailoring to individual service requirements and support in using the findings to implement meaningful and sustainable change. Over the next year the Tool will be used as a catalyst for a responsive Change Agent Team service support programme.

**Implementation Plan**

The Tool will be formally launched on 9th May 2008 as part of an NLIAH sponsored national Intermediate Care Conference.

Following that launch health and social care organisations will have the opportunity to request access to the database and to seek support from CAT to set up and operationalise the tool for their specific teams.

Administrators and users for the system will be set up within those communities and CAT will work closely with the teams to ensure that they are able to collect and enter data on the system. Bespoke IT support will be given to local teams to enable them to generate reports for their services.

Where the data shows there may be opportunities to improve the way in which the Intermediate Care Team is working, or in examining gaps in the provision of a continuum of Intermediate Care Services, CAT will respond to requests to provide support to the organisations and teams to take forward any service improvement work. There will be no costs to organisations to use the Tool or to receive CAT support.
In response to requests already received by Intermediate Care leads, both clinical and managerial, a national Intermediate Care Community of Practice or Network will be established in order to facilitate:

- The sharing and promotion of evidenced practice
- Joint learning and problem solving
- Coordinating national development work

The work stream will utilise a collaborative approach with CAT drawing in as appropriate, the expertise of other service improvement agencies including for example Social Services Improvement Agency (SSIA), Wales Centre for Mental Health, Wales Centre for Health, National Public Health Service.

**Future Developments**

The pilot study and discussion with the Expert Panel highlighted that there are already areas for further examination such as reducing variation in goal setting standards, the adaptation and development of dependency measurement specific to Intermediate Care groups, methods of accurately collecting service user satisfaction responses.

It is envisaged that such developmental work will be undertaken by the proposed Community of Practice and that the Expert Panel established to oversee the pilot will continue to meet for this purpose.

**Recommendations**

1. Health and social care communities across Wales should use the Tool to evaluate their current Intermediate Care Services and to commission new services to meet identified gaps in the continuum of care.

2. NLIAH will produce an annual feedback report that identifies national trends (but not individual locality performance) and examples of good practice, to inform future WAG Intermediate Care policy.

3. The proposed Intermediate Care Community of Practice should be used to:
   a. Further develop the Evaluation Tool;
   b. Build an evidence base of good practice;
   c. Take the lead in producing and disseminating advisory and academic work in Intermediate Care, with the support of the Expert Panel and other appropriate agencies.

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