

# Online education for diabetes healthcare professionals

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The advent of the Agenda for Change, the NHS Knowledge and Skills Framework and the Scottish Diabetes Framework has meant education for healthcare professionals in diabetes care has never been more important (Department of Health, 2004; Scottish Executive, 2004; Scottish Executive Health Department, 2006). In light of this new emphasis on using theories to underpin adult education and behaviour change Gill Teft and colleagues have developed an online education course for professionals involved in diabetes care in remote areas of Scotland.

The number of education courses for healthcare professionals that are multidisciplinary in their approach, are accredited, meet the NHS Knowledge and Skills Framework (KSF) outlines, are reasonably priced and do not involve a lot of time away from the working environment is very small. In order to address such requirements the multidisciplinary NHS Highland diabetes team has developed and is now delivering web-based diabetes education in collaboration with the University of the Highlands and Islands Millennium Institute (UHI).

The UHI provides university level education through academic partnerships with 15 colleges, research institutions and now with NHS Highland. There are currently over 5000 students studying on

UHI courses or undertaking post-graduate research, with many of these courses being internet based.

The majority of the Highlands and Islands Diabetes Education (HIDE) course is web-based – including most of the teaching. This makes it accessible to anyone who has access to a computer and the internet and requires only one day of attendance for induction and two further days for the practical sessions. In addition, the course can be studied in the students' own time and at their own pace.

The programme is supported and taught by experienced members of the multidisciplinary diabetes team working in secondary care who have considerable knowledge and skills, thus forging a strong link between theory and practice.

## Article points

1. Diabetes education for healthcare professionals needs to be robust and easy to access.
2. Skills for Health competencies should be incorporated into courses so they can be mapped to the Knowledge and Skills Framework outlines.
3. The HIDE course described in this article has been designed by an experienced multidisciplinary team and is an online programme assessed by an essay and practical sessions.

## Key words

- Diabetes education
- Online learning

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### Page points

1. The Diabetes Management Course was launched in 2005 and has attracted a wide range of students from varying healthcare backgrounds.
2. The course runs twice a year and is composed of two modules: diabetes management and complicated diabetes management.
3. The online and interactive nature of the course has received positive feedback from the participants.

### Establishing the course

In early 2004 the authors began work on a collaborative project to develop the previous face-to-face diabetes workshops that had been delivered across the Highlands into an academically accredited online course. As with most projects, the preparatory work was the most time consuming aspect, with particular focus needed to acquire funding. Other issues that were considered included:

- the sourcing and preparation of materials
- the decision of what to include and when
- how the course would run

From conception to launch the process took 18 months.

The HIDE course was launched in October 2005 with its first intake of students. Currently, the course attendees comprise a variety of healthcare professionals from across the Highlands and Western isles of Scotland: GPs, district nurses, DSNs, practice nurses and student nurses. There has also been interest from allied healthcare professionals such as dietitians, podiatrists and dentists whom the authors hope to enrol in the future.

### The modules

The course was designed to meet the criteria suggested by the NHS Education for Scotland (2004), which identified the need for such courses to contain a practical element.

There are two modules:

- *Module 1: Diabetes Management*
- *Module 2: Complicated Diabetes Management.*

To complete the course both modules must be passed – the current mark required is 40%. However, a number of students are electing to just complete module 1, or, if they have completed a recognised diabetes course within the last 3 years, just module 2. For each module, academic assessment is in the form of a 3000 word essay answering a question set by the examiners. This forms 80% of the overall marks available with the practical assessment forming the other 20%.

Now that it is established, the HIDE course runs twice a year, starting in January and September. While the modules can form part of a degree in health studies, they can also stand alone and gain students 15 Credit Accumulation and Transfer Scheme (CATS) points at level three for each module – 180 CATS points are required to obtain a degree.

The modules are each 15 weeks long: 10 weeks of online learning; 1 week devoted to the 2-day practical sessions; and 4 weeks allocated for answering the essay question. The online learning resources were collated and organised by Rachel Tearse and were hosted online by the UHI. Each week of the 10-week online learning period includes a number of activities designed to consolidate the learning for that week. These activities get posted onto an online discussion board and may be used as the basis for that week's online tutorial. The discussion board is an area that is open to all course attendees and can also be used sharing ideas and posting questions that can then be discussed. For private correspondence, for instance when the tutors give individual feedback on the activities, email is used.

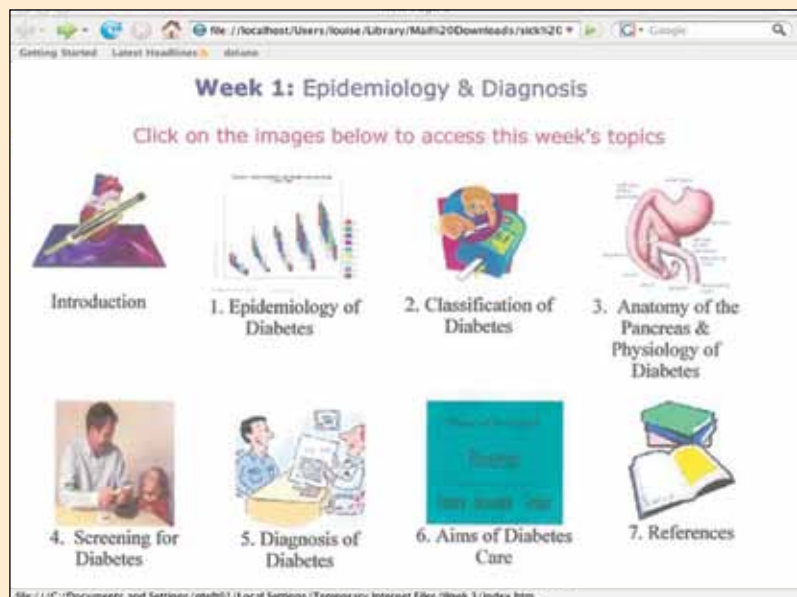


Figure 1. Example webpage from week 3 of the Highlands and Islands Diabetes Education (HIDE) course.

Weekly tutorials are held online by Kirsty McCulloch and Gill Teft in a private chat room. Should a student miss a tutorial, a full transcript is made available. In the authors' experience, those interested in developing a similar course should be prepared to adjust their teaching style in order to effectively teach online.

Active participation is vital in such education programmes where tutorials, for example, are held in an interactive, online chat room. In the authors' experience all students to date have been active participants who do post ideas, ask questions and share experiences. As ideas and experiences are shared the whole group can gain insight into different ways in which diabetes care can be delivered and the various challenges faced in general practice; the community; and in remote and rural areas.

### Practical sessions

The practical sessions take place in week 6 for module 1 and week 9 for module 2. The course organisers work with the students to help them arrange nearby and reasonably priced accommodation for their stay. The programme is not able to offer financial assistance in order to help attend the practical sessions, but this is balanced by the total cost of the course (£300 for both modules) being much lower than other accredited diabetes courses.

The course organisers felt very strongly that a practical element should be incorporated as this had been a very popular part of the workshops that this course replaced, as well as addressing the criteria in the NHS Education for Scotland (2004) document.

The sessions are based on the Skills for Health competencies (Scottish Executive, 2004) and enable the students to examine a number of KSF Core, and Health and Wellbeing dimensions at varying levels. Among others, the topics cover such issues as:

- correct calculation of BMI

- dietary advice
- blood glucose monitoring
- foot assessment
- presentation skills
- sick day rules
- cardiovascular risk reduction
- medication
- lifestyle interventions.

Much of the work over the two days is case-study based as the course organisers feel that this approach works well to help relate theory to practice. The material is delivered in tutorials, hands-on sessions and workshops. The sessions conclude with the practical assessments, which constitute 20% of the overall pass mark for the course and must be passed as part of the overall assessment.

### Keeping the course up to date

One of the many advantages of an online course is that the materials can be updated and changed as required. The course organisers use the summer vacation to update and change the course as new developments, studies and evidence come to light, so that the course always reflects current thinking.

### Feedback and future development

To date, informal verbal feedback and that analysed from a formal questionnaire indicate that course participants find the course useful and enjoyable. Such information will be used to inform future development of the course.

Feedback from the external examiners has also been positive in terms of the robustness of the assessments and the support and tutoring given to the students.

Looking to the future, the course organisers are planning to actively review the impact the course has had on the care of people with diabetes, staff confidence, control of diabetes and other factors.

### Discussion

Delivering and accessing accredited diabetes education for the many different healthcare professionals involved in diabetes care is

### Page points

1. The practical sessions incorporate government key learning objectives and guidelines.
2. Only two days are required for the on-site practical sessions, minimising time away from the professional environment and benefiting those from remote areas.
3. The course is able to reflect current research and ideas due to its online nature, which means it can continuously be changed and updated.

**Page points**

1. Collaboration with experts is essential for courses to be successful.
2. Communication between primary and secondary care staff has been improved through the learning process..
3. Being online allows for diabetes education to be accessed further afield.

challenging and time consuming. To meet Agenda for Change and the NHS KSF criteria, education must be robust, relevant to practice and enable people to provide evidence of their learning. New courses that are being developed will need to take this into account and will, as has been done with the course described in this article, need to underpin the learning with the competencies already prepared and mapped to the NHS KSF by Skills for Health. As identified in the *Diabetes National Workforce Competence Framework Guide* (Skills for Health, 2004):

*'Skills for health works in partnership with the Agenda for Change KSF Development Group to ensure that the National Workforce Competence Frameworks developed by Skills for Health fit well with the NHS KSF and that the different frameworks support each other.'*

The course described here works directly with the Skills for Health competencies and will give participants evidence to demonstrate their continuing learning and development.

For those involved in diabetes care, developing innovative and novel ways to provide education will be challenging and making use of internet technology will provide useful adjuncts to traditional learning methods. This should make education much more accessible to many who would otherwise be unable to take part. Collaboration with those who have expertise in these fields will be vital, for example, in the authors' experience communication between primary and secondary care staff involved in diabetes care has improved as they learn from each other. Similarly, the team are grateful for the assistance of the nearby UHI for their specialist knowledge in this field. This collaboration made setting up this particular course much easier than it might otherwise have been.

The HIDE team has gone to great lengths to produce and deliver this online course

and believe it will make diabetes education much easier to access for those not only living in remote and rural areas in Scotland, but also by those living further afield or indeed in other countries. ■

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