



Wheelchair Service Provision  
Open Online Courses  
Evaluation Report

**January 2019**

## Summary

In September/October 2018 Physiopedia and the International Committee of the Red Cross (ICRC) successfully delivered the Wheelchair Service Provision Massive Open Online Courses (Wheelchair MOOC) via the Physioplus online learning platform. This programme of four courses and optional written assignment were based on the “Guidelines on the provision of manual wheelchairs in less-resourced settings” developed by the World Health Organisation (WHO). In collaboration with Humanity & Inclusion (HI) a French version of the programme of courses was delivered concurrently.

**Course Type** - Open, Online

**Course Coordinators** - Rachael Lowe, Barbara Rau, Martin Jacobs

**Collaborating Partners** - Physiopedia, the ICRC and HI

**About this course** - This online programme of four courses provides a comprehensive theoretical understanding of Wheelchair Service Provision including the theoretical principles, skills and knowledge underlying the management skills and knowledge in the management of wheelchair service delivery. There was an English and a parallel French version of the programme of courses.

**Who were the courses aimed at** - These courses were written for physiotherapy clinicians, students and assistants; other healthcare professionals interested in this subject were welcomed to participate.

**Time commitment** - 17 hours over 4 weeks

**Date** – 1 September to 31 October 2018 (the course remains available on the Physioplus platform to members)

**Requirements** – Participants were required to complete online learning activities, engage with additional resources, take part in the conversation online and complete the course evaluation.

**Assessment** - There was a final quiz and participants could optionally complete an assignment to demonstrate their learning.

**Awards** - 4 course completion certificates awarding a total of 17 Physioplus (P+) points.

**Accreditation** - The courses were accredited by the Australian Physiotherapy Council, the South African Society of Physiotherapy (total 22 CEUs) and The Federation of State Board of Physical Therapy (total 16 CEUs)

**Registrations** - 5,559 (5296 English programme and 263 French programme)

**Countries represented** - 148 (143 English programme and 28 French programme)

## Acknowledgements

The Wheelchair Service Provision MOOC was developed as a collaboration between Physiopedia and ICRC. Physiopedia and ICRC provided funding. The “Guidelines on the provision of manual wheelchairs in less-resourced settings” developed by the World Health Organisation were used as the basis for these courses. HI completed the French translation of the programme of courses.

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## Introduction

During September and October 2018 Physiopedia ran their seventh Massive Open Online Course titled Wheelchair Service Provision (Wheelchair MOOC). This was delivered as a programme of four courses and an optional written final assignment. These courses were developed as a collaboration between Physiopedia and ICRC. The course structure and content was based on the “Guidelines on the provision of manual wheelchairs in less-resourced settings” developed by the World Health Organisation (WHO) which was supplemented with additional material from global experts. A French version of the programme of courses, translated and facilitated by HI, ran concurrently.

The aim of the Wheelchair MOOC was to train the distributed team of ICRC staff and partners to have a basic understanding of the theoretical knowledge that underpins the provision of wheelchairs to appropriate clients in a variety of contexts. The content of the courses was designed for physiotherapists in any global context, all healthcare workers from any location and context were invited to participate. Being open for anyone to participate allowed for global conversation around the topic and enabled peer-to-peer learning across contexts and experiences.

The four week long courses presented different topics through a variety of learning activities to suit all learning styles. The required learning activities within each course were developed to take between 4-6 hours depending on the participant's learning style and optional activities were provided should the participant wish to take part in additional learning. A short orientation period before the course started provided participants with an opportunity to become familiar with the delivery platform and the topic via the provided pre-course resources.

The course was delivered through the Physioplus (P+) online learning platform, an innovative platform specifically developed to deliver online education and provide learners with a personalised learning dashboard. For each course the related learning activities were released on a specific course page. As participants engaged with each course learning activity it was recorded and displayed in their own personal learning dashboard.

To finish each of the four courses, participants were required to complete all the required learning activities and pass a final quiz that tested knowledge. Finally there was an optional course which included a written assignment to demonstrate their learning from all four courses. On completion of each course the participants could download a completion certificate and also export a record of their learning from their activity log.

This report evaluates the experiences and engagement of the participants on the Wheelchair MOOC.

# **1. About the Programme of Courses**

## **1.1 Aim**

The programme of four courses aimed to provide a comprehensive theoretical understanding of Wheelchair Service Delivery and to develop an understanding of the theoretical principles, skills and knowledge underlying the management skills and knowledge in the management of wheelchair service delivery.

## **1.2 Learning Objectives**

At the end of this programme of courses participants were able to:

1. describe the United Nations Convention on the Rights of Person with Disabilities with regards to wheelchair provision
2. detail their local national prevalence and the global prevalence of people living with some form of disability
3. explain 4 benefits of a wheelchair and 5 challenges for wheelchair users
4. explain how wheelchair design can impact on an individual's function and satisfaction
5. plan the appropriate wheelchair provision and education based on the individual, their needs, environment, and activities after reviewing a case scenario
6. identify the 8 steps to appropriate wheelchair provision
7. explain 9 risks for developing pressure ulcers and their prevention
8. plan a thorough assessment for an individual requiring a wheelchair
9. justify the appropriate wheelchair prescription and preparation based upon a complete patient evaluation and current wheelchair assessment as per case scenarios
10. revise the seating prescription for an individual in a case scenario by following the 4 steps to wheelchair fitting
11. plan a wheelchair skills training session based upon an individual portrayed in a case scenario
12. describe the 6 important components of taking care of a wheelchair at home with regards to why, when, and how
13. discuss the role of outcome measures for wheelchair and seating provision
14. describe general and local wheelchair provision service delivery models in relation to laws, strategies, policies and action plans
15. identify five ways the multidisciplinary team can support a wheelchair user's right to personal mobility and to be actively involved in wheelchair provision
16. select the appropriate actions for referral, appointments, funding and ordering of wheelchairs based on a case scenario
17. discuss a patient case scenario with reference to the assessment, wheelchair prescription, fitting, training requirements, and follow up planning

### **1.3 Intended Audience**

This course was suitable for all healthcare professionals but specifically aimed at physiotherapy professionals including clinicians, assistant or students who have a good understanding of the key principles of physiotherapy but little prior experience in wheelchair provision. It was also of interest to any professionals (e.g. prosthetists, orthotists, nurses, occupational therapists, speech therapists, medical doctors) motivated to upgrade their knowledge on wheelchair provision.

### **1.4 Cost to participants**

The course was free to all participants who completed the course within 8 weeks from the start date and remains free to all residents of low income countries on a permanent basis.

### **1.5 Course availability**

The programme of courses started on the 1 September 2018 when the first course contents were made available. A new course was released each following Monday for another 3 weeks. Participants had until 31 October 2018 to complete the courses under their free access to Physioplus. The course remains available on the Physioplus platform to members; membership is free to individuals from low income countries and available at a discounted rate to individuals in middle income countries.

### **1.6 Course Awards and Accreditation**

Course completion certificates were provided by Physiopedia to all participants that passed each course within the programme. The programme of courses was accredited by the Australian Physiotherapy Council, the South African Society of Physiotherapy (total 22 CEUs) and The Federation of State Board of Physical Therapy (total 16 CEUs).

## 2. Demographics of the Participants

### 2.1 Country

5,559 participants formally registered for the programme of courses before the end date of 31 October 2018 (5296 English registration and 263 French registration). They represented 148 countries, the most represented countries are detailed below. For full results see Appendix 1.

English Course		French Course	
Total number of countries	143	Total number of countries	28
India	483	Haiti	91
Australia	398	Lebanon	29
Nigeria	322	France	23
USA	289	Ivory Coast	15
Canada	285	Niger	15
Pakistan	258	Benin	12
Jordan	253	Togo	10
Saudi Arabia	241	Belgium	9
South Africa	227	Mali	8
UK	209	DRC	7

### 2.2 Profession

	English Course		French Course	
Physiotherapy / Physical Therapy	4218	80%	173	66%
Prosthetics / Orthotics	152	3%	30	11%
Occupational Therapy	584	11%	0	-
Rehabilitation Therapist	-	-	13	5%
Medical Doctor	62	1%	5	2%
Nurse	68	1%	4	2%
Other	212	4%	38	14%



## 2.3 Role

	English Course		French Course	
Clinician	3449	65%	136	52%
Student	859	16%	40	15%
Educator	254	5%	5	2%
Assistant	216	4%	24	9%
Manager	142	3%	24	9%
Researcher	82	2%	2	1%
Other	289	5%	4	3.23%

## 2.4 Years of experience

	English Course		French Course	
no experience	1762	33%	121	46%
< 1 year	1331	25%	57	22%
1 to 5 years	1301	25%	53	20%
> 5 years	905	17%	32	1%

### 3. Engagement of the Participants

#### 3.1 Platform

The four courses were delivered on Physioplus. The related course pages were visited a total of 39,340 times before the final date of the supported course on 31 October 2018.

	<b>English</b>	<b>French</b>
Number users who started the first course of the programme	1,621	109

#### 3.2 Learning Activities

The four courses involved a total of 91 required learning activities (full details in Appendix 2).

	<b>English</b>	<b>French</b>
Total number of learning activities logged	35,481	6,734

#### 3.3 Discussion Forum

Participants were required to participate in the discussion forum on a weekly basis. They were required to take part in a minimum of 10 discussions over the programme of courses with making between 2 and 3 posts per course. This was made a requirement as it provided a rich learning experience through self-reflection on learning and exposure to global discussions about clubfoot. This was the task that participants found most difficult to complete.

The discussion forum was hosted on the Physioplus platform where participants were asked to comment on the weekly guided discussions. It was clear that not all people engaging with the course joined participated in the discussions.

	<b>English</b>	<b>French</b>
Number of people who introduced themselves in the forum	880	80
Total number of discussion posts	5,813	1,116

### 3.4 Quizzes

In each course participants were given the opportunity to assess their knowledge and understanding of the topic through a multiple-choice quiz. Participants received immediate feedback on right and wrong responses making this a rich learning experience. The pass mark was 80% and they could attempt the quiz as many times as they liked.

	English	French
Number of attempts made on the four course quizzes	2,353	450
Quiz passes	1,485	258

### 3.5 Course Awards

To complete each course participants were required to fully engage with all the related required learning activities (Appendix 2), participate in the discussion forums and pass the course quiz. From Physioplus, they received P+ points (equivalent to hours of learning) for every learning activity that they completed and a course completion certificate on completion of all the required elements of each course.

	English	French
Number of certificates awarded for all four courses	1077	212
Total P+ points awarded	9,217	2,170

### 3.6 Final Assignment

Reflecting on their learning and using the knowledge gained throughout the courses participants could submit an optional assignment. Participants were asked to follow the [assignment guidelines](#) on Physiopedia and the assignments were assessed by the Physiopedia team. The marking rubric was kept fairly simple but each assignment needed to demonstrate: evidence of learning from the course, academic skill with evidence based writing and proper referencing and written English skills.

	English Course	French Course
Assignment submissions	72	This was not an option for the french course

Participants were able to choose from 3 different assignments which allowed for different academic skills and learning styles. The patient case study and the knowledge translation resource were the most popular assignments:

Patient case study	60
Clinical guideline	11
Physiopedia page	1

### 3.7 Engagement versus completion

	<b>English</b>	<b>French</b>
Started the first course	1621	109
Received first course completion certificate	374	54
Started the final course	362	65
Received final course completion certificate	209	48

## 4. Participant Feedback

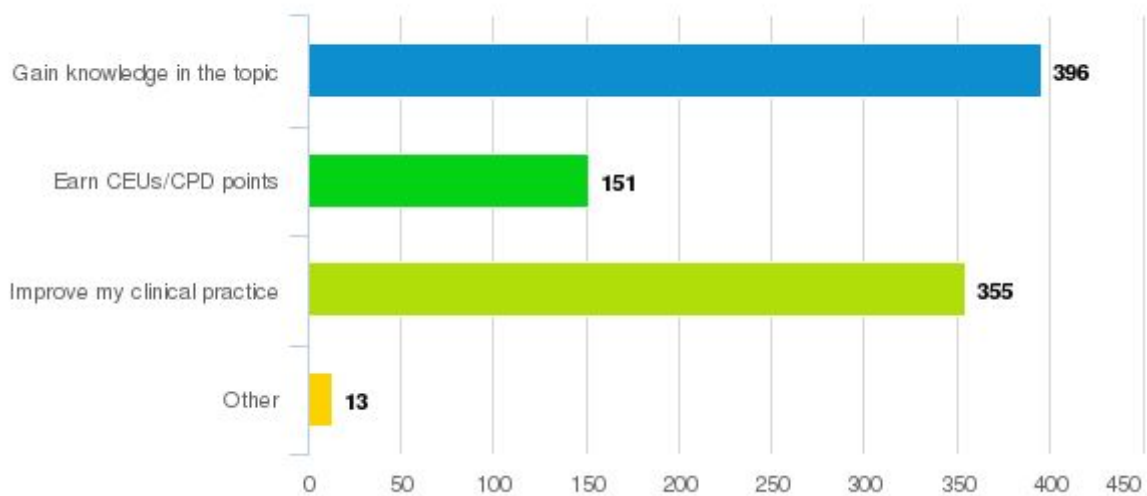
529 (507 English and 22 french) participants completed the evaluation forms at the end of each of the programme courses.

### 4.1 Quantitative Data

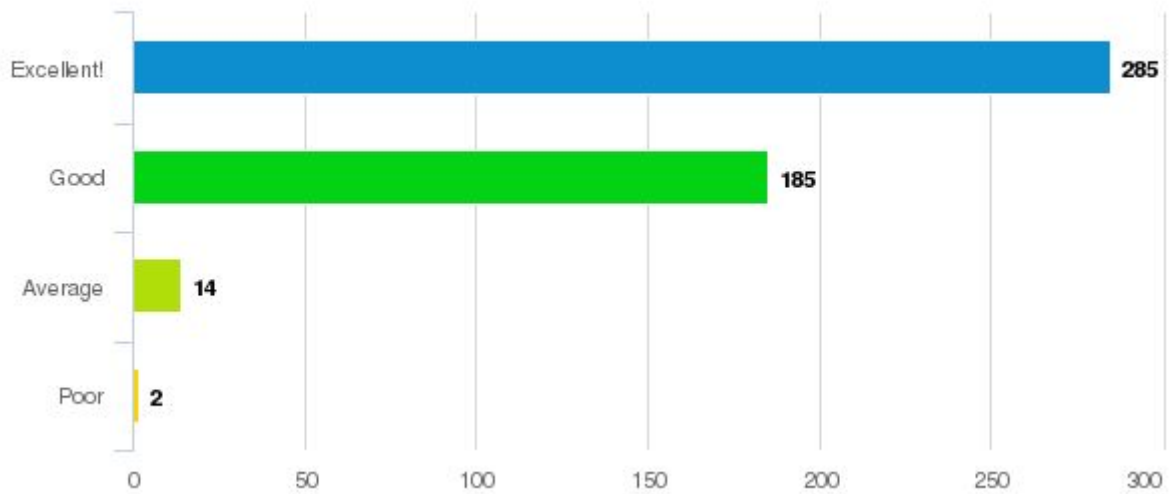
Overall there was agreement that the courses were enjoyable to work through, an appropriate length with the right amount of work required each week, was pitched at the right level and would be recommended to colleagues. The participants stated that they found the Physiopedia pages, videos and quizzes most useful for learning. Broadly all the activity types were found useful with no activity type reported as not useful for learning.

#### 4.1.1 English Course

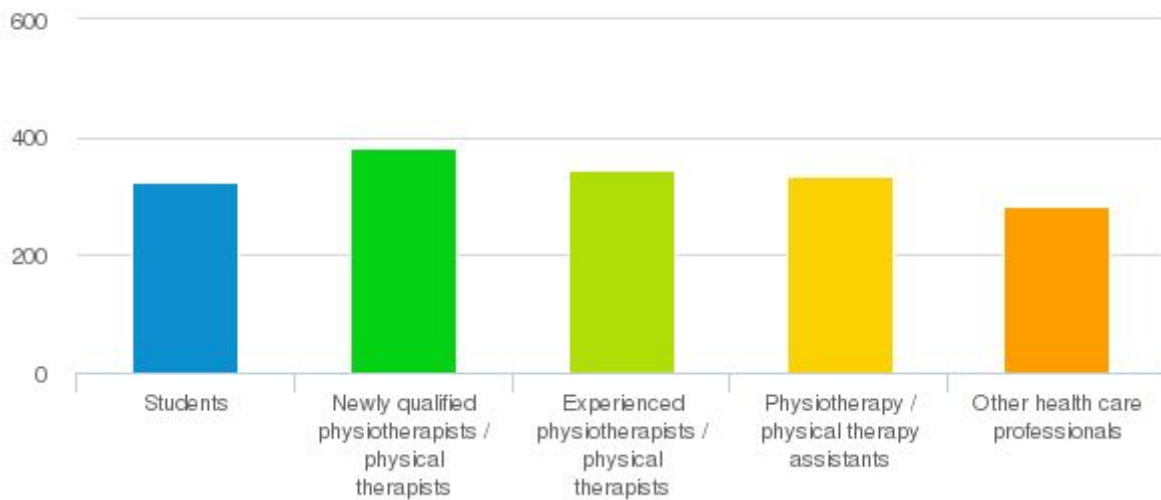
##### Why did you choose to do this course?



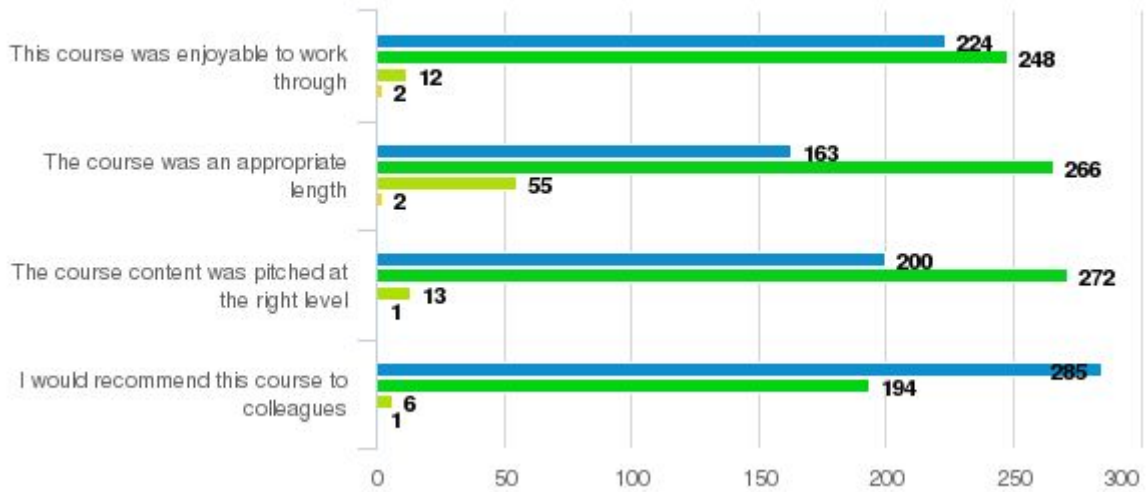
## Overall rating of the course



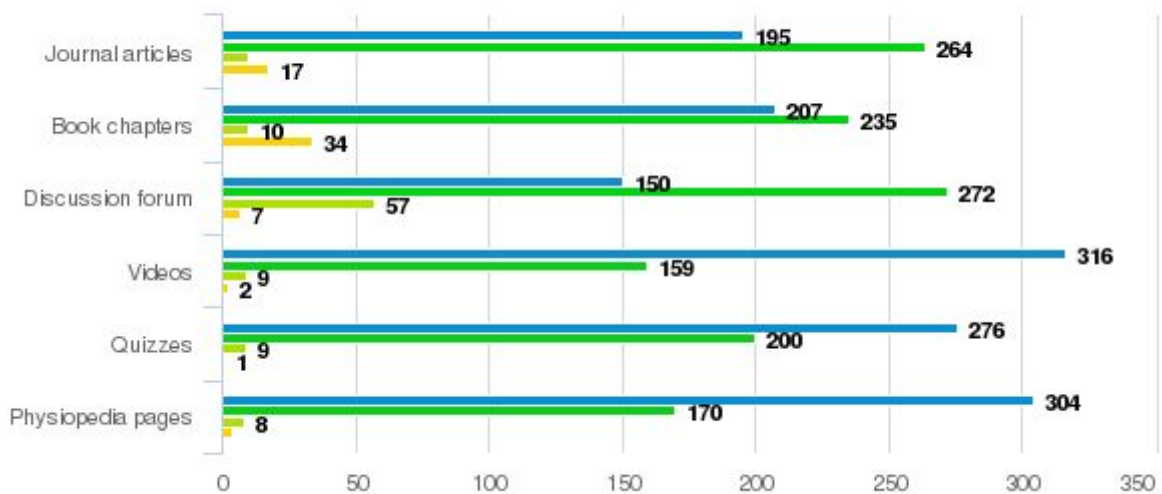
## This course is useful to the following groups of people



## General impressions of the course

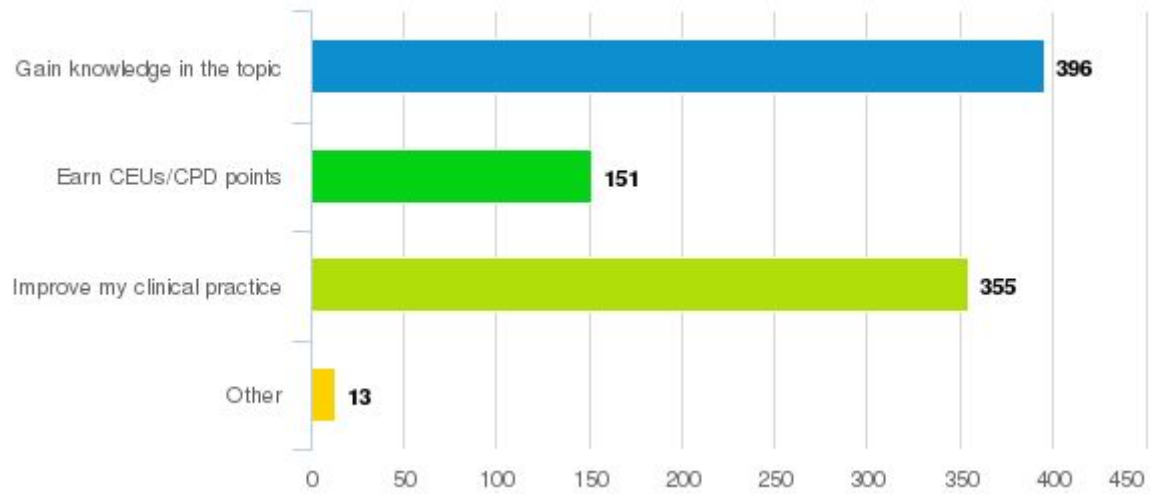


## For learning how useful did you find the following

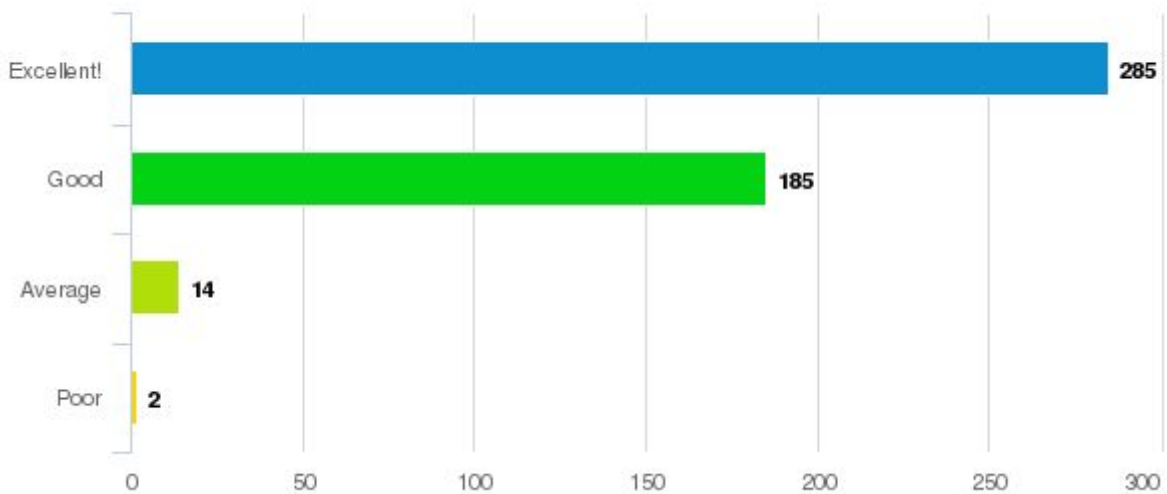


### 4.1.1 French Course

#### Why did you choose to do this course?

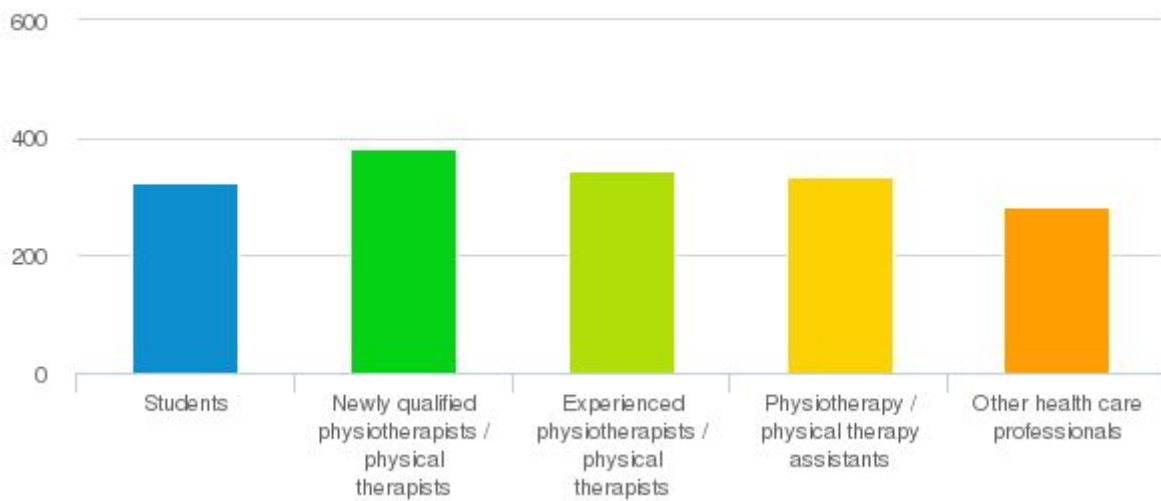


#### Overall rating of the course

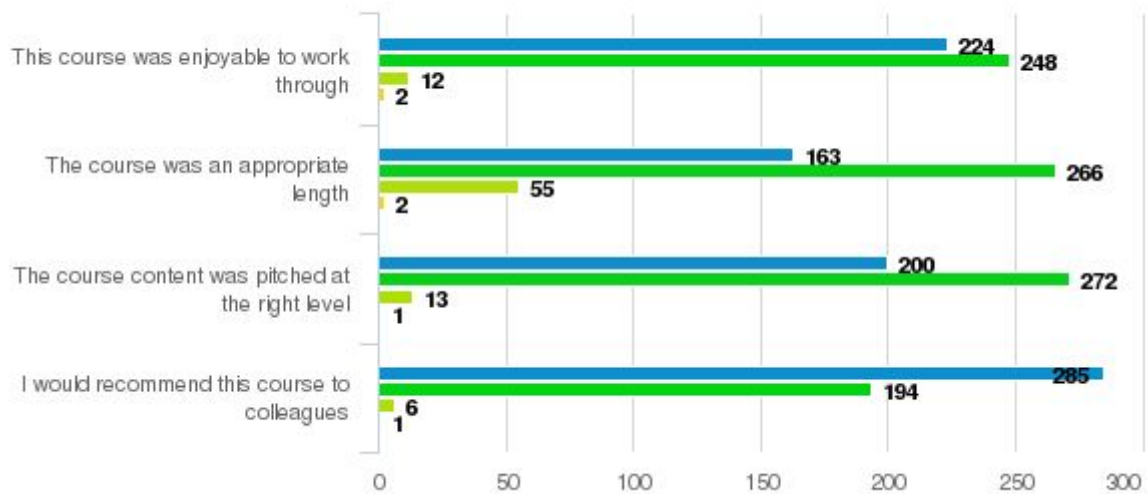




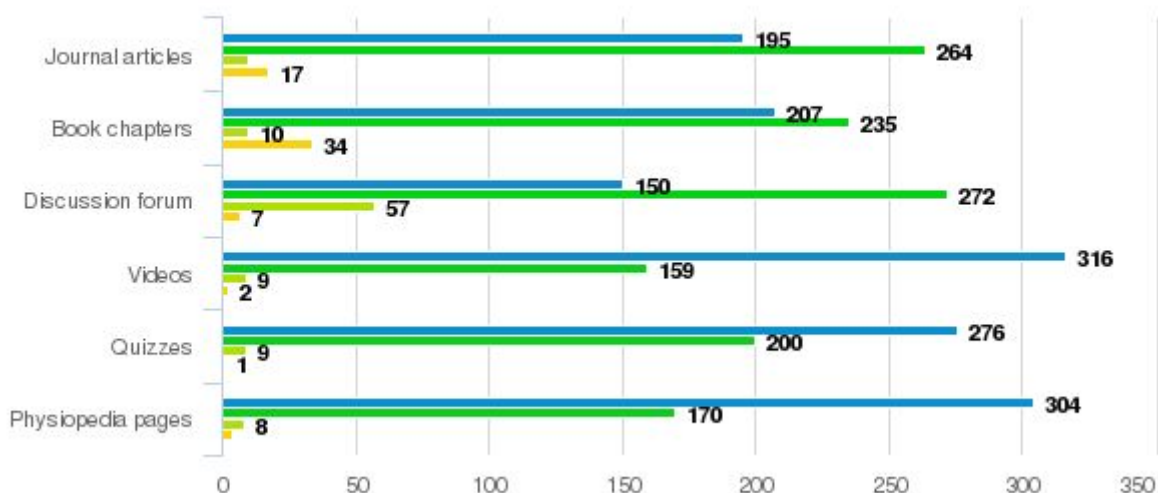
## This course is useful to the following groups of people



## General impressions of the course



## For learning how useful did you find the following



### 4.2 Qualitative Data (based on English course)

In qualitative feedback that asked “what were the best elements of the course”, participants almost universally responded positively about the course. It was clear that each and every type of resource and activity was identified by a significant proportion as being the best element with no clear pattern emerging. Some individuals identified the wide variety of resources and activities as their best element of the course. Illustrative sample comments can be read in Appendix 3.

When asked “how could this course be improved” the most common opinion was that the course was excellent and did not need improvement. Of the issues raised the most common was the number and duration of reading activities and the limited nature of the discussion in the forum. Common suggestions were to increase the use of images and videos and to offer the course in more languages. Illustrative sample comments can be read in Appendix 4.

This feedback demonstrates the many different learning styles and preferences that course participants have. For this programme of courses, some people prefer the reading activities, others the videos, while for a handful the discussion forum activities were the highlight.

### **4.3 Impact on clinical practice (based on English course)**

In the evaluation form participants were asked “describe any way in which this course has changed your clinical practice”.

Many participants had no prior experience of working with wheelchair users and these individuals reported increased confidence if they did encounter such a clinical situation in the future. Many expressed a greater awareness of the variety of types of wheelchair available and their suitability in different circumstances, the biomechanical issues to be considered in fitting and the physical conditions that can be experienced by wheelchair users. Overall most participants expressed the opinion that they felt able to provide a better quality of service to this client group following the course. Illustrative sample comments can be read in Appendix 5.

## **Conclusion**

The wheelchair is a commonly used assistive device which provides an opportunity for its users to dramatically increase their quality of life. This course provided an accessible introduction for interested individuals to gain theoretical knowledge of the process of providing wheelchairs to appropriate clients and learn with an international network of colleagues. Continued free access to the course content via the Physiopedia website allows health care professionals and carers to gain access to knowledge at any time in an easily accessible way.

The course registration data demonstrated the unique opportunity that this course has provided in offering an easily accessible knowledge development option for health care professionals across a wide distribution of geographical locations and contexts.

Course evaluation data indicates that the variety of resources and activities is an important characteristic of the courses that is required to meet the wide range of learning styles and preferences. Highlighted areas for improvement should involve adding further visual elements, reducing the length of long reading materials, avoid repetition of content and also aim to increase conversation within the discussion forum. Participants in low resource settings sometimes requested to access an offline version of the course to avoid problems caused by poor Internet connection.

The evaluation also provides strong evidence that improvements in clinical practice will result from participation in the courses. This will include more appropriate wheelchairs being prescribed, improved biomechanics in the fitting of the wheelchair, and increased focus on providing the user with training in the long term use and maintenance of their device.

## Appendix 1 – Course participants demographics

English course:

India	483	Haiti	18	Czech Republic	3
Australia	398	Portugal	16	Oman	3
Nigeria	322	Somalia	16	Latvia	3
United States	289	Italy	15	Kiribati	3
Canada	285	Malta	15	Cyprus	3
Pakistan	258	Romania	14	Guinea-bissau	3
Jordan	253	Estonia	13	Bulgaria	3
Saudi Arabia	241	France	13	Slovakia	3
South Africa	227	Yemen	13	Venezuela	3
United Kingdom	209	Puerto Rico	13	Taiwan, Republic of China	3
Palestinian Territory	195	Turkey	13	Lao People's Democratic Republic	3
Sudan	105	Kuwait	13	El Salvador	3
Malaysia	103	Spain	12	Cambodia	3
Egypt	95	Suriname	12	Russian Federation	2
Rwanda	63	Botswana	11	Bahamas	2
Nepal	61	Albania	11	Namibia	2
Philippines	61	Chile	11	Armenia	2
New Zealand	59	Indonesia	10	Austria	2
Israel	47	Hungary	10	Cayman Islands	2
Bangladesh	47	Cameroon	10	Madagascar	2
Kenya	47	Congo, The Democratic Republic of the	9	Benin	2
Singapore	45	Libya	8	Cape Verde	2
United Arab Emirates	45	Fiji	8	Saint Lucia	2
Jamaica	41	Georgia	8	Timor-leste	1
Myanmar	41	Sierra Leone	8	Serbia	1
Mexico	39	Bolivia	7	Brunei Darussalam	1
Syrian Arab Republic	39	Bhutan	6	Netherlands Antilles	1

Afghanistan	38	Japan	6	Cuba	1
Colombia	37	Switzerland	6	Panama	1
Ireland	36	Ecuador	6	Korea, Republic of	1
Qatar	36	South Sudan	6	Chad	1
Lebanon	36	Croatia	6	Luxembourg	1
Uganda	35	Belgium	6	Tunisia	1
Sri Lanka	35	Iran, Islamic Republic of	6	Belize	1
Thailand	33	Guyana	6	Tajikistan	1
Vietnam	33	Netherlands	6	Solomon Islands	1
Hong Kong	31	Azerbaijan	5	Niger	1
Slovenia	31	Costa Rica	5	Liberia	1
Zimbabwe	31	Finland	5	Burkina Faso	1
Trinidad and Tobago	30	Sweden	5	Togo	1
Tanzania, United Republic of	30	Mauritius	5	Bahrain	1
Ghana	28	Swaziland	5	Martinique	1
Ukraine	28	Lithuania	4	Turks and Caicos Islands	1
Ethiopia	28	Poland	4		
Iraq	27	Dominican Republic	4		
Brazil	26	Germany	4		
Greece	22	Burundi	4		
Malawi	22	China	4		
Argentina	19	Norway	4		
Zambia	18	Peru	4		

French course:

Haiti	91	Canada	6	Morocco	1
Lebanon	29	Burundi	5	Mayotte	1
France	23	Afghanistan	5	Singapore	1
Côte d'Ivoire	15	Rwanda	4	Chile	1
Niger	15	Madagascar	4	Senegal	1
Benin	12	Cameroon	3	Italy	1
Togo	10	Burkina Faso	3	Guinea-bissau	1
Belgium	9	Tunisia	2	Romania	1
Mali	8	Switzerland	2		
Congo, The Democratic Republic of the	7	Spain	2		

## Appendix 2 – Required learning activities

### Course 1. Introduction to Wheelchair Service Provision

1	Introduction to Wheelchair Service Provision	Physiopedia article
2	Global Disability Context and Wheelchair Mobility	Physiopedia article
3	Convention on the Rights of Persons with Disabilities	Physiopedia article
4	Wheelchair Users	Physiopedia article
5	Forum post - Prevalence of wheelchair mobility	Forum topic
6	Role of the Wheelchair	Physiopedia article
7	WSTP Basic Video Series: 2. The benefits of an appropriate wheelchair	Video
8	WSTP Intermediate Video Series: 3. The benefits of an appropriate wheelchair	Video
9	Forum post - Benefits of having a wheelchair	Forum topic
10	Wheelchair Design	Physiopedia article
11	Wheelchair Biomechanics	Physiopedia article
12	Wheelchair Service Provision Case Study - Meeting the Wheelchair Users Environments	Physiopedia article
13	Wheelchair Service Provision Case Study - Meeting the Wheelchair Users Needs	Physiopedia article
14	Wheelchair Service Provision Case Studies - Appropriate Wheelchairs	Physiopedia article
15	Forum post - What type of wheelchair and accessories	Forum topic
16	Introduction to Wheelchair Service Provision - Quiz	Quiz

## Course 2. Steps to Appropriate Wheelchair Provision

1	Eight Steps to Appropriate Wheelchair Provision	Physiopedia article
2	WSTP Intermediate Video Series: 2. Wheelchair service steps	Video
3	WHEELCHAIR Service Training Package Session B.2: Assessment	Presentation slides
4	Wheelchair Assessment	Physiopedia article
5	ICF in Relation to Wheelchair Users	Physiopedia article
6	WHEELCHAIR Service Training Package Session B.3: Assessment interview	Presentation slides
7	Wheelchair Assessment - Assessment Interview	Physiopedia article
8	WHEELCHAIR Service Training Package Session B.4: Physical assessment	Presentation slides
9	Wheelchair Assessment - Physical Assessment	Physiopedia article
10	Wheelchair Assessment - Body Measurements	Physiopedia article
11	WSTP Basic Video Series: 11. Measurement demonstration	Video
12	Wheelchair Service Provision Case Studies - Assessment	Physiopedia article
13	Forum topic - Choosing a wheelchair case study	Forum topic
14	WSTP Basic Video Series: 5. Pressure sore testimonial	Video
15	Decubitus ulcers	Physiopedia article
16	Cushions	Physiopedia article
17	Postural Support Devices	Physiopedia article
18	WSTP Intermediate Level: 4. People using postural support devices	Video
19	WHEELCHAIR Service Training Package Session B.5: Prescription (Selection)	Presentation slides
20	Wheelchair Prescription	Physiopedia article
21	Wheelchair Service Provision Case Studies - Prescription	Physiopedia article
22	Forum topic - Type of wheelchair and components 2 case studies	Forum topic
23	Wheelchair Service Provision Case Study - Selecting Wheelchair Size	Physiopedia article
24	Wheelchair Service Provision Case Study - Select Cushion Size	Physiopedia article
25	Wheelchair Preparation	Physiopedia article
26	WHEELCHAIR Service Training Package - Session B.7: Product (wheelchair) preparation	Presentation slides
27	WHEELCHAIR Service Training Package - Session B.8: Cushion fabrication	Presentation slides
28	WSTP Basic Video Series: 12. Wheelchair safe and ready checklist demonstration	Video
29	Steps to Appropriate Wheelchair Provision Quiz	Quiz



### Course 3. Wheelchair Fitting, Skills and Maintenance

1	WHEELCHAIR Service Training Package Session B.9: Fitting	Presentation slides
2	Wheelchair Fitting	Physiopedia article
3	WSTP Basic Video Series: 14. Fitting demonstration	Video
4	WHEELCHAIR Service Training Package Session B.10: Problem solving	Presentation slides
5	Forum topic - Wheelchair fitting case studies	Forum topic
6	WSTP Basic Video Series: 15. Problem solving - fit or adjustment - example 1	Video
7	WSTP Basic Video Series: 16. Problem solving - fit or adjustment - example 2	Video
8	Wheelchair Skills	Physiopedia article
9	WHEELCHAIR Service Training Package Session A.3: Wheelchair mobility	Presentation slides
10	WHEELCHAIR Service Training Package Session A.8: Transfers	Presentation slides
11	WSTP Basic Video Series: 3. Learning to use my wheelchair	Video
12	Wheelchair Service Provision Case Studies - Wheelchair Skills	Case study
13	Forum topic - wheelchair skills case studies	Forum topic
14	Wheelchair Service Provision Case Studies - Transfers	Case study
15	Forum topic - Transfer case studies	Forum topic
16	Wheelchair Skills Assessment and Training	Physiopedia article
17	WHEELCHAIR Service Training Package Session B.12: Maintenance and repairs	Presentation slides
18	Wheelchair Maintenance	Physiopedia article
19	WSTP Basic Video Series: 17. How to care for a wheelchair at home	Video
20	Outcome Measures for Wheelchair and Seating Provision: A Critical Appraisal	Journal article
21	Wheelchair Fitting, Skills and Maintenance - Quiz	Quiz

#### Course 4. Wheelchair Service Delivery

1	Wheelchair Services	Physiopedia article
2	Forum topic - Wheelchair Service Models	Forum topic
3	Multidisciplinary Team in Wheelchair Service Provision	Physiopedia article
4	WHEELCHAIR Service Training Package Section B: Wheelchair Service Steps	Presentation slides
5	Wheelchair Referral and Appointments	Physiopedia article
6	Not a Tragedy but a Tool	Journal article
7	WHEELCHAIR Service Training Package B.6: Funding and ordering	Presentation slides
8	Wheelchair Funding and Ordering	Physiopedia article
9	WHEELCHAIR Service Training Package Session B.13: Follow up	Presentation slides
10	Wheelchair Service Follow Up	Physiopedia article
11	Wheelchair Service Provision Case Studies - Follow Up	Physiopedia article
12	Wheelchair follow up form	Guideline
13	Forum topic - Wheelchair service provision case study	Forum topic
14	Interview with Jess Markt - sport for wheelchair users	Video
15	Wheelchair Service Delivery - Quiz	Quiz

## Appendix 3 - Course evaluation: what were the best elements of the course

Sample evaluation responses:

1. Videos and Quiz.
2. I enjoyed reading the articles and reading the replies from the group discussion.
3. Videos and journal articles
4. Videos and case studies
5. The videos and the comprehensive text of the topic makes the course more understandable and deeply knowledgeable.
6. Virtually, I found all parts very useful and informative.
7. Overall it was enjoyable. The videos which were shown of people using different chairs in the community was useful to see the difference in the chairs after reading the wheelchair biomechanics page. The biomechanics page was also really informative
8. The great amount of information and free documents
9. I found all elements of the course very useful
10. The best elements of the course: the dynamics, the exchange in the forum, the videos and the texts to read.
11. I enjoyed every aspect of the course very much
12. The best elements of the course was the experiences shared by wheelchair users, references through journals.
13. It was a good combination of different aspects - reading, tasks and videos.
14. Seeing the video of the different people using different wheelchairs to negotiate their environment and discussions
15. I enjoyed the quiz and case studies
16. The physiopedia pages are very interesting and have a lot of important information.
17. I enjoyed the detail that was including regarding the different features of the wheelchairs that are available along with a review of how to take appropriate measurements.
18. Having different modules from article, journal, videos, etc. Both basic and intermediate level contents in ready format helps well.
19. The discussions, the physiopedia pages and the quizzes were especially interesting to me
20. The variety of activities, it wasn't just a single form of education delivery.
21. WHO training materials
22. The videos were the best elements of the course.
23. Almost all parts of the course were very valuable, but especially discussion about effect of backrest height on wheelchair propelling mechanism, about rear wheel and front wheel, discussion related 2 cushion

## Appendix 4 – Course evaluation: how could this course be improved

Sample evaluation responses:

1. At the moment I have no improvements to suggest.
2. I don't personally see any concerns
3. Some of the readings are super long & can get tedious
4. The discussion forum feels a bit forced and not useful.
5. Provide downloadable info to read offline
6. There is a lot of reading - probably too much.
7. This course could be improved more if it's translated in many more languages.
8. To make it easy to reach the subject and download it all
9. There is a lot of read work!
10. Unlike other courses I've taken the interaction on the discussion board was not as good. It felt more like people writing the same thing and less about collaboration
11. Already well structured and varied!
12. I think if the course was more visual (more pictures, videos, presentations) it would be easier to understand, especially the mechanical issues of the wheelchair.
13. More videos and quizzes and less journal articles
14. Every aspect of this course is good. But it's quite tricky/ hard for me to navigate from one topic to another and sometimes it's quite confusing. But overall I do love the information provided in this course.
15. If the moderator are more involved in the discussion to correct information when needed
16. It can be improved by reducing the volume of the articles to be read, yet maintaining the content.
17. There were some spelling errors, but these were not a hindrance to learning.
18. I found some of the questions in the quiz a bit challenging/confusing
19. Some information was repetitive in the readings.
20. Increased number of discussion
21. An offline version
22. Should include more of videos and practical aspect and cut down theory aspects and give answers to the case study and quiz
23. It is already perfect.
24. Parts of the course felt rather long and time consuming. I would have appreciate an estimate time of completion for each section so I can plan my spare time around it rather than staying up late at night in order to finish it.
25. No comment! I feel like this course is better except that maybe considering the length of this course it would be nice if the period of the course be lengthened a bit

## Appendix 5 – Course evaluation: how has the course changed your practice

Sample evaluation responses:

1. I have a broader perspective about the purpose and design of wheelchairs used around the world. I will be more conscientious of evaluating my patient's environment when selecting an appropriate chair.
2. The impacts of biomechanics and seating on propulsion will impact how to evaluate children for wheelchairs.
3. In my NHS practice I do not see any wheelchair users but I have a cousin who has quadriplegia, I have convinced him to buy new motorised wheelchair and send his family the video links on the physiopedia page to gain more understanding around appropriate wheelchair use.
4. I will consider an extended-castor 3 wheel option for folks that live out in more rural communities.
5. To be able to assess proper wheelchair need for specific individual
6. For patients with Spina Bifida, for the wheelchair prescription, I will have to look into account the Shoulder overuse syndrome.
7. I see wheelchair very differently now. I also see the need for not having a general type of wheelchair for everybody
8. I will be more structured when looking to the wheelchair and study well the person's needs of the wheelchair taking into consideration the environmental factors
9. Take a holistic approach keeping in mind the impairment and environment and other barriers. Also how to propel efficiently
10. I got to understand that not everyone can use the same wheelchair. It is important to access the conditions first.  
I learnt to prescribe wheelchair according to need, environment etc of patient
11. I will be able to be more knowledgeable when completing my wheelchair assessments, even working with ATPs, and will be more thorough in completing measurements to provide the best fit w/c.
12. More aware of pressure injury types and steps to take to reduce pressure
13. I think more, how can I make wheelchair more suitable for patient. Even one change of the biomechanics make a huge difference.
14. I would try to keep everything in my mind whatever I have learned here before I prescribe a wheelchair to my patient.
15. I now have a grounded knowledge on wheelchair and wheelchair users. In my 2 years of practice in Nigeria I've had very very little knowledge of the topic. Now I'm going to create an awareness in whatever way I can.
16. Check well the WC before the user use it. Take into consideration the postural support devices to add according to person needs
17. I will probably take into the biomechanics and the design of the chair a lot more. Although you listen to your patients, you can always learn from them so paying bit more attention to activities etc may always help too!