



A BLUEPRINT  
+ FOR PAIN  
EDUCATION

ADVANCING *the* Provision  
OF PAIN EDUCATION  
& LEARNING (APPEAL)



# INTRODUCTION

Unrelieved pain is a widespread but under-recognised public health problem that can have a devastating impact on patients and their quality of life.

Pain in all its forms – including back pain, cancer pain, arthritis or post-surgical pain – impinges on all aspects of patients' lives, hindering everyday activities such as family responsibilities, recreational activities and work. Its impact is far-reaching and considerable for society too, with the healthcare costs and loss in productivity associated with chronic pain in Europe estimated to be equivalent to 3-10% of gross domestic product (GDP).<sup>1,2</sup>

Chronic pain affects around 1 in 5 adults in Europe,<sup>3</sup> yet it remains poorly managed and under-treated, prolonging the suffering for patients and increasing the risk of complications.

A lack of knowledge about pain medicine is a key barrier to effective pain treatment and management,<sup>4</sup> yet evidence suggests that pain education is not prioritised in a number of countries across Europe.<sup>5,6,7</sup> Further research is needed to build a complete picture of the current provision of pain education in medical schools in Europe.

# A BLUEPRINT FOR PAIN EDUCATION

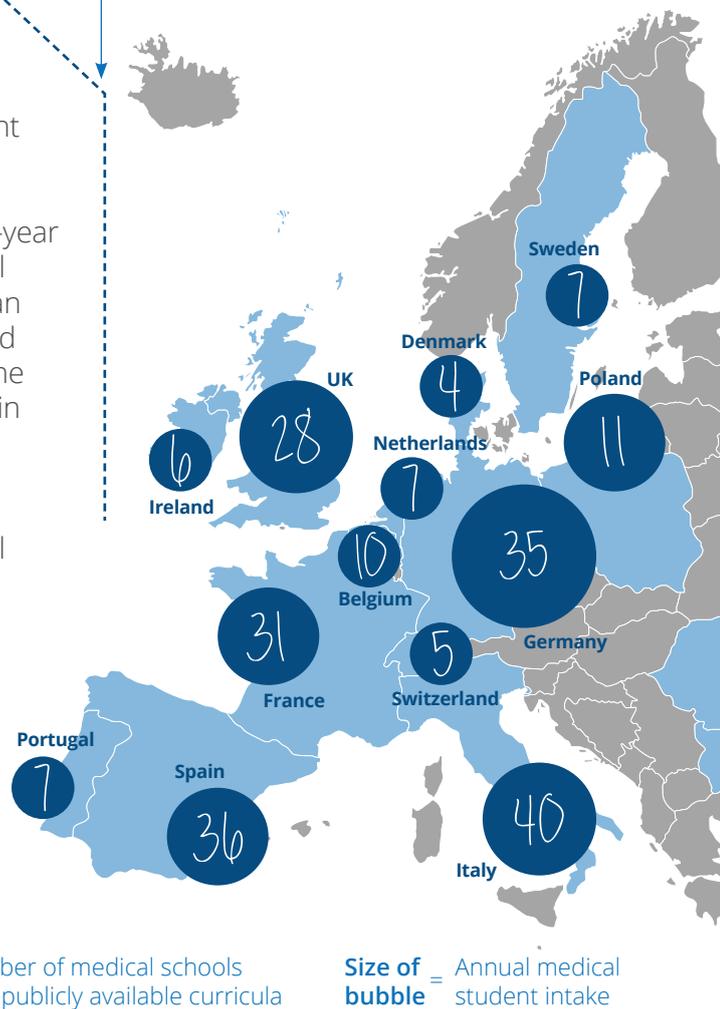
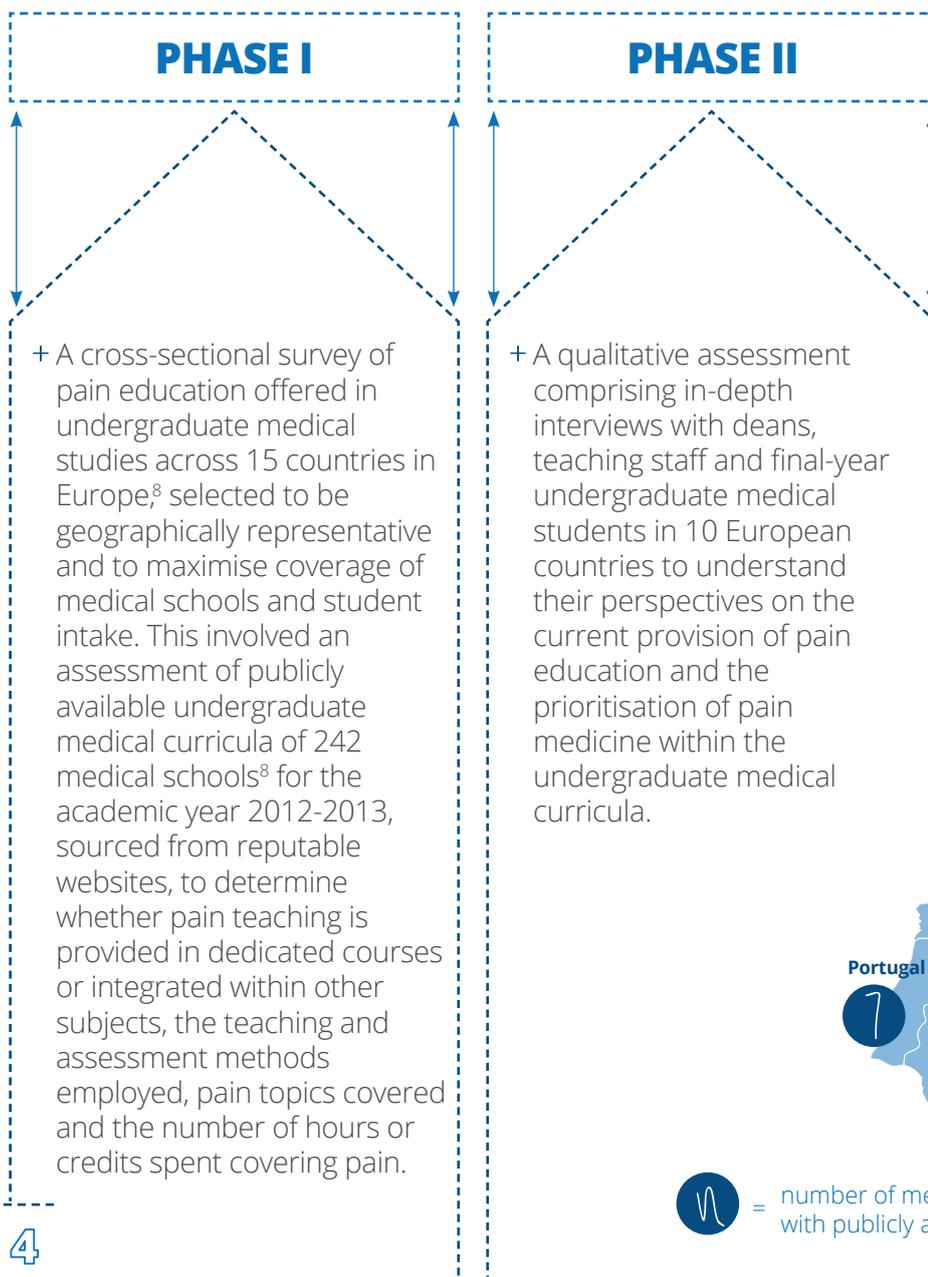
The Blueprint for Pain Education is an initiative established to improve pain education for healthcare professionals in Europe in order to address the knowledge gaps that contribute to the poor treatment and management of pain.

## ADVANCING *the* Provision OF PAIN EDUCATION & LEARNING (APPEAL)

The **APPEAL** study is the first step in this initiative and focuses on the provision of pain education for undergraduate medical students. The study aims to increase our understanding of the way pain is taught and assessed in medical schools in Europe and to identify opportunities to improve pain education for all undergraduate medical students in Europe.

# APPEAL STUDY

The *APPEAL* study is the first ever Europe-wide review of pain education for undergraduates in Europe. Funded by Mundipharma International Limited and guided by an expert Taskforce of pain and education specialists, under the leadership of The European Pain Federation, EFIC<sup>®</sup>, the *APPEAL* study was conducted by independent research company Adelphi Research in two phases:



# KEY FINDINGS

## Pain teaching is inconsistent and limited, and typically incorporated into other subjects

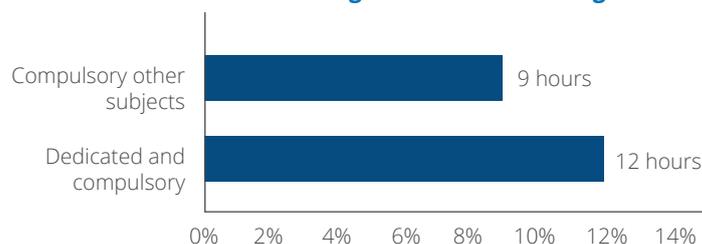
+ Pain teaching is typically incorporated into other subjects, with 62% of all medical schools<sup>8</sup> offering pain education within other compulsory subjects. Pain teaching appears in a broad range of different subjects including pharmacology, anaesthesiology, physiology, emergency medicine, palliative care and surgery,<sup>8</sup> but is not consistently taught in the same subjects across Europe. Furthermore, despite being integrated into a broad range of subjects, only nine hours of pain teaching<sup>8</sup> are included on average within other subjects during the complete undergraduate medical degree, according to publicly available curricula.

## There is no dedicated teaching on pain in 7 out of 10 medical schools in Europe

+ There is no dedicated teaching on pain in 69% of undergraduate medical schools.<sup>8</sup> In four countries (Belgium, Denmark, Ireland and Poland),<sup>8</sup> there is no dedicated teaching on pain at all, either compulsory or elective. Fewer than 1 in 5 medical schools have compulsory dedicated teaching on pain,<sup>8</sup> and in seven countries (Belgium, Bulgaria, Denmark, Ireland, Portugal, Poland and Sweden)<sup>8</sup> none of the medical schools have any compulsory dedicated teaching on pain.



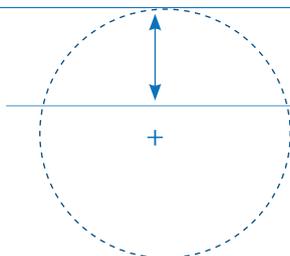
Average Hours Pain Teaching



## Even where pain teaching is dedicated and compulsory, only 0.2% of undergraduate medical teaching is allocated to pain

+ The presence of dedicated teaching on pain in the curriculum does not in itself assure an adequate level of pain education. Even where there is compulsory dedicated teaching on pain, an undergraduate medical student receives on average only 12 hours pain teaching<sup>8</sup> within their entire degree programme, equivalent to just 0.2% of their undergraduate medical teaching,<sup>8</sup> based on the European Union's Directive on the minimum training hours for medical degrees (currently six years or 5500 hours).





## Pain teaching is not included in the curriculum at all in 17 medical schools

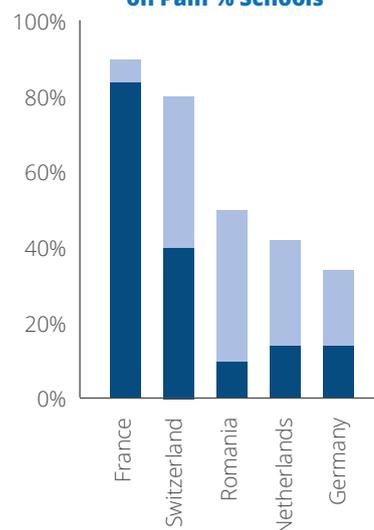
+ Despite being one of the most common reasons for patients to consult a doctor, pain is not documented at all in the curriculum in 7% of medical schools in Europe.<sup>8</sup> The 17 medical schools where there is no evidence of pain teaching in the undergraduate medical curriculum are concentrated in six countries – Belgium, Bulgaria, Germany, Ireland, the Netherlands and UK.<sup>8</sup>

## The provision of pain teaching is promising in France and Germany

+ In France, where pain education is a stipulated requirement of a medical degree, 27 out of 31 medical schools have dedicated teaching on pain,<sup>8</sup> and in all but one school, that teaching is compulsory. Similarly, in Germany, where recent guidelines mandate the inclusion of pain teaching in the curriculum, 14 out of 35 schools have dedicated pain teaching.<sup>8</sup> Whilst this progress is promising, it also underlines the lack of dedicated pain teaching in other countries – if France is excluded from the analysis, in the 14 remaining countries only 9% of medical schools have compulsory dedicated teaching on pain.<sup>8</sup>

■ % Mandatory Dedicated Module on Pain  
 ■ % Elective Dedicated Module on Pain

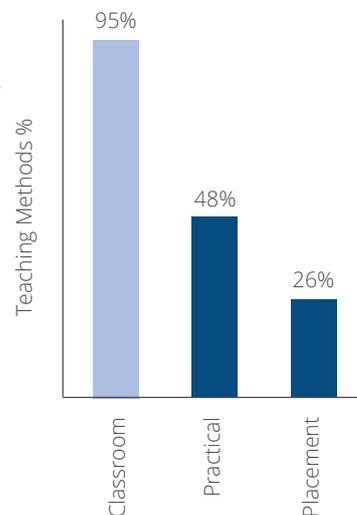
**Dedicated Teaching on Pain % Schools**



## Teaching and assessment methods are traditional with low uptake of practical methods

+ The vast majority of medical schools predominantly use traditional methods, i.e. classroom-based teaching and assessment by examination, to teach and assess pain medicine.<sup>8</sup> Fewer than half of all medical schools employ practical teaching methods with a further quarter offering placements, and only a small minority use practical or placement methods to assess pain learning.<sup>8</sup>

**Teaching Methods %**



## Pain topics are poorly documented in the undergraduate medical curriculum

+ It is difficult to assess what elements of pain teaching is included because pain topics are not documented in 27% of compulsory courses that cover pain.<sup>8</sup> Even where pain topics are documented, there is wide variation in the level of detail provided, preventing any meaningful comparison of course content between different medical schools and countries.

# DISCUSSION

## **Pain teaching is a peripheral part of undergraduate medical teaching across Europe**

+ In 8 out of every 10 schools in Europe, there is no compulsory dedicated teaching on pain.<sup>8</sup> Whilst pain teaching is frequently integrated into other subjects, there is minimal requirement stipulated by the curriculum in most medical schools to cover pain topics.

## **The provision of pain education is inconsistent and variable across Europe, yet the prevalence of pain is relatively constant between countries**

+ Pain teaching is provided in dedicated courses, compulsory and elective modules, and is integrated in a broad range of different subjects. The *APPEAL* study reveals that there is no standard approach to the provision of pain teaching for undergraduates. In most medical schools, documented pain teaching falls far short of what might be expected given the prevalence of pain.

## **The poor documentation of pain topics in undergraduate medical curricula prevents meaningful assessment of pain content even where pain medicine is included in the curriculum**

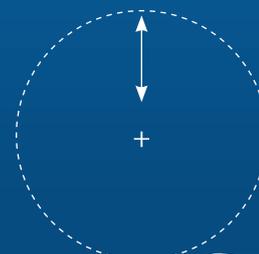
+ Pain teaching is poorly documented in undergraduate medical curricula in Europe, making it difficult to assess the content of pain teaching provided to undergraduate medical students. Pain topics are not listed for 27% of medical schools offering compulsory pain education, and even where pain topics are documented there is wide variation in the level of detail provided.<sup>8</sup>

## **The teaching hours devoted to pain education is disproportionate to the public health need**

+ In schools where teaching hours are articulated, less than 0.2% of the teaching hours of the undergraduate medical programme are devoted to pain education in either dedicated pain modules or within other subjects.<sup>8</sup> This is considerably less than what might be expected if teaching hours were determined by the public health need.

# CALL TO ACTION

The **APPEAL** Expert Taskforce calls on medical schools, pain specialists, medical students and relevant policymakers to ensure that pain education for undergraduate medical students across Europe is fit for purpose to address the current unmet public health need to adequately manage and treat pain.



To this end, the expert Taskforce recommends:

- 1 The establishment of a **European framework for pain education**, developed jointly by pain specialists and educators and drawing on the EFIC<sup>®</sup> Core Curriculum in Pain Management, to ensure consistency in pain teaching within the undergraduate medical curriculum and between medical schools in Europe.
- 2 The introduction of **compulsory pain teaching for all undergraduate medical students** in Europe, to enable them to acquire a defined minimum level of competency in pain and up-to-date pain management.
- 3 **Improved documentation of pain teaching** within the undergraduate medical curriculum, with clearly stated teaching content and defined student competencies in pain.

## References

- <sup>1</sup> Gustavsson A, et al. Socio-economic burden of patients with a diagnosis related to chronic pain - Register data of 840,000 Swedish patients. *Eur J Pain* 2012;16:289-99
- <sup>2</sup> Raftery MN, et al. The economic cost of chronic noncancer pain in Ireland: results from the PRIME study, part 2. *J Pain* 2012;13:139-45.
- <sup>3</sup> Breivik H, et al. Survey of chronic pain in Europe: Prevalence, impact on daily life, and treatment. *Eur J Pain* 2012;16:289-99.
- <sup>4</sup> Montreal Declaration, 2010 International Pain Summit (IPS) of the International Association for the Study of Pain (IASP). Available here: <http://www.iasp-pain.org/Content/NavigationMenu/Advocacy/DeclarationofMontr233al/default.htm>. Date accessed September 2013.
- <sup>5</sup> Briggs E, et al. Survey of undergraduate pain curricula for healthcare professionals in the United Kingdom. *EJ Pain* 2011; 15:789-795.
- <sup>6</sup> Tauben DJ and Loeser JD. Pain education at the University of Washington School of Medicine. *Journal of Pain* 2013;14:431-437.
- <sup>7</sup> Watt-Watson J, et al. A survey of prelicensure pain curricula in health science faculties in Canadian universities. *Pain Res Manage* 2009; 14:439-44.
- <sup>8</sup> A Blueprint for Pain Education — the APPEAL study (Advancing the Provision of Pain Education and Learning) 2013, Mundipharma data on file.

