programmes for education and training in diabetes management

and Health Sciences, Edmonton, Canada
2. **Søren Skovlund** Novo Nordisk, Health Economics and Outcomes Research, Soeberg, Denmark
3. **Marco Comaschi** ICLAS GVM Care and Research, Internal Medicine, Rapallo, Italy
Mergentheim, Germany
5. **Bernhard Kulzer** Research Institute of the Diabetes Academy Mergentheim FIDAM-Diabetes Center Mergentheim, Bad Mergentheim, Germany
7. **Mark Peyrot** Loyola University Maryland, Sociology, Baltimore, Maryland, USA

on behalf of the DAWN2 Study Group

Introduction

- The DAWN2 study explored the perceptions of PWD, FMs and HCPs in 17 countries across four continents.
- Psychosocial aspects of diabetes related to care, treatment, education and training, as well as improvements needed in these areas for HCPs, PWD and FMs were explored in DAWN2.[1]
- Findings were considered as benchmarks for psychosocial indicators related to the management of the impact, burden, distress and depression experienced by PWD and FMs, through improved diabetes management, education and resources.[2–4]
- A secondary exploratory initiative of the DAWN2 study involved a desk research situational analysis of diabetes-related policies and strategies in the 17 countries.[1]

Aim

- The aim of this poster is to explore results from the desk research situational analysis of existing diabetes policies related to diabetes education and training in the 17 countries, and to relate these policies to actual participation in diabetes education and training reported by PWD, FMs and HCPs in the DAWN2 surveys.

Methods

- The detailed DAWN2 study design has been previously published.[1]
- Briefly, DAWN2 is an international, interdisciplinary, multi-stakeholder study conducted in 17 countries across four continents.
- DAWN2 was conducted in accordance with the relevant ethical requirements in each country.
- The DAWN2 survey methodology regarding PWD, FMs and HCPs participation and needs concerning diabetes education and training are published elsewhere.[1–4] This methodology includes the recruitment of PWD, HCPs and FMs across the 17 countries, and the use of validated, adapted and new questions specific to diabetes education participation. Global (overall) scores were reported as mean % with country variations expressed as minimum to maximum mean % range.
- The desk research on country policy/situational assessments were undertaken in five steps:[1]
  - **scoping review process:** document searches on electronic databases
  - **desk research through literature review and synthesis:** guided by four topic areas (patient involvement, equal access to care, self-management education and psychosocial support)
  - **in-depth questionnaire-based interviews in each participating country:** interviewees with experience/knowledge of country policies/strategies were selected with the support of the national DAWN2 expert network and represented key national stakeholder groups (patient organisation, diabetes expert/advisor to government, policymaker)
  - **ranking of performance on each indicator in each country:** experts ranked 28 identified indicators across countries using a ranking scale between 1 to 10, and categorised as: 1 (no information available); 2–4 (policy/programme not in place); 5–7 (policy/programme in place but not enforced); and 8–10 (policy/programme in place and acted on)
  - **validating research by matching findings with interview data and expert committee.**

Results

- Survey results of experiences and perceptions of 8,596 PWD were previously published[2] as were perceptions of 4,785 HCPs regarding treatment, care, education and supports for PWD.[3]
- Twenty-eight key policy and strategy indicators were identified from the desk research situational analysis with each of the 17 countries.
- Three of the 28 were selected for discussion in this poster based on their reference to diabetes education *(1. Reimbursement of diabetes self-management education; 2. Certified education for diabetes HCPs, and 3. Formal policies and programmes to educate family and caregivers).*

  NB: desk research analysis of policies in each country is situational or point-in-time (2012), and does not depict changes or current policy situations.
- Results in this poster are presented under the three selected indicators.

(1) Reimbursement of diabetes self-management education

- Results of the 2012 situational analysis of country policies pertaining to this indicator suggest that:
  - all countries have reimbursement policies/programmes in place for diabetes self-management education for PWD (Figure 1). Of these, 53% indicated that PWD have been reimbursed for their self-management education
  - considering countries which scored 8–10 for full reimbursement of diabetes self-management education for PWD (Figure 1), Algeria and France had comparatively lower percentages of PWD attending diabetes education (Figure 2)
  - of countries scoring 5–7 for partial reimbursement (Figure 1), percentages of PWD attending education was relatively low in Russia, Turkey, Mexico and India (Figure 2).

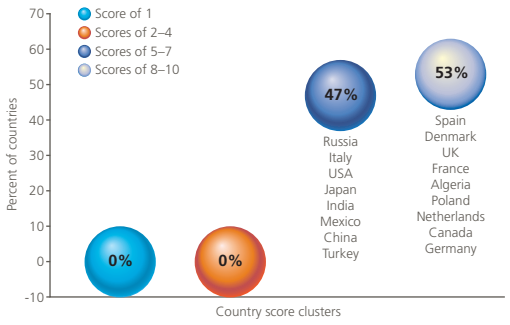

Figure 1. Percent of countries at each of the four scored clusters described as score of: 1 = no information available; 2–4 = diabetes self-management education is out-of-pocket expense for patients; 5–7 = diabetes self-management education is only partially reimbursed or special/additional insurance/membership required; 8–10 = diabetes self-management education is reimbursed for all patients.

- Relevant to the situational policy analysis are considerations of DAWN2 survey results for PWD and HCPs which indicate that:
  - less than half of PWD participated in any education programme, of which 81% found the education to be beneficial[2]
  - 60.0% of HCPs (country range: 26.4–81.4) identified that improvements were needed specifically around the availability of self-management education
  - Figure 2 provides country responses of PWD and HCPs regarding education and need for improved availability of diabetes education.

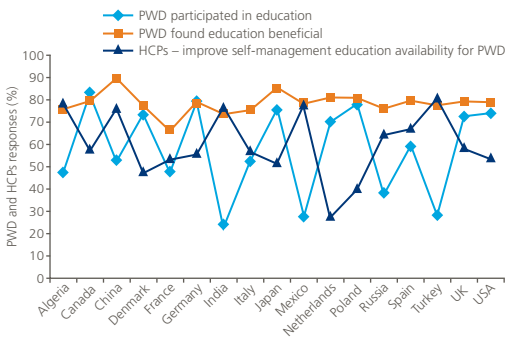

Figure 2. Percent country responses of PWD and HCPs regarding education and need for improved availability of diabetes education.

(2) Certified education for diabetes HCPs

- Results of the 2012 situational analysis of country policies pertaining to this indicator suggest that:
  - all countries indicated that they have certified education available for diabetes HCPs in patient-centred care, of which 35% of countries actually endorsed this (Figure 3)
  - of the countries which scored 8–10 for endorsement of certified education for HCPs (UK, USA, Poland, Italy, Japan and France), uptake of education by HCPs was very similar to most, and lower than some, of the other countries which scored 5–7 for some training being available to HCPs.

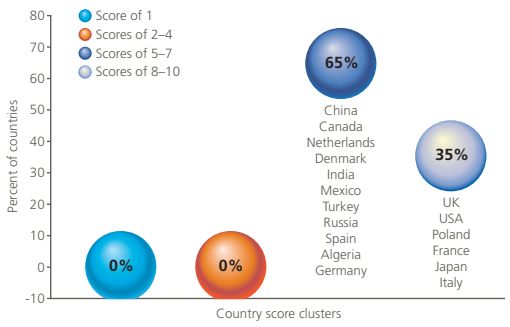

Figure 3. Percent of countries at each of the four score clusters described as score of: 1 = no information available; 2–4 = no training in patient-centred care is available for diabetes HCPs; 5–7 = some training in patient-centred care for diabetes HCPs is available, but not endorsed; 8–10 = certified and quality-assured training in patient-centred care is available to all diabetes HCPs.

- Relevant to the situational policy analysis are considerations of DAWN2 HCP survey results[2] which indicate that:
  - 63.8% of HCPs (country range: 27.9–90.7) indicated a need for more qualified nurse educators or availability of specialist diabetes nurses
  - 63.0% of HCPs (39.6–89.3) indicated that all diabetes care professionals should have formal training in effective communication
  - there are a number of areas of diabetes education/training completed by HCPs, and a number of these which they would like more training in (Figure 4).

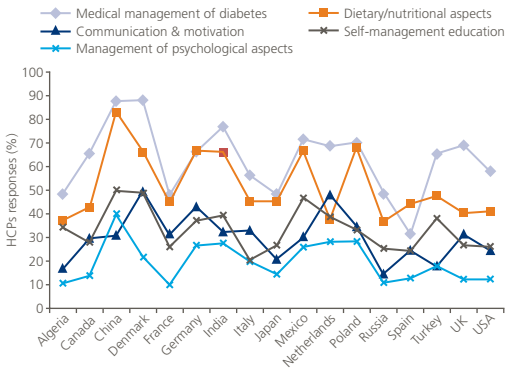

Figure 4. Percent of HCPs in each country indicating what education/training they had taken and wanted more training in.

(3) Formal policies and programmes to educate family and caregivers

- Results of the 2012 situational analysis of country policies pertaining to this indicator suggest that:
  - for 47% of countries, no information is available on their policies or programmes regarding education for family and caregivers (Figure 5)
  - 41% of countries have policies/programmes in place for FMs, of which 17% have implemented these policies/programmes (Figure 5)
  - when compared with the survey responses of FMs attending education (Figure 6), countries scoring 8–10 for policies and programmes supporting FMs (Denmark, Mexico and Spain) did not necessarily have better FM attendance for diabetes education than other countries.

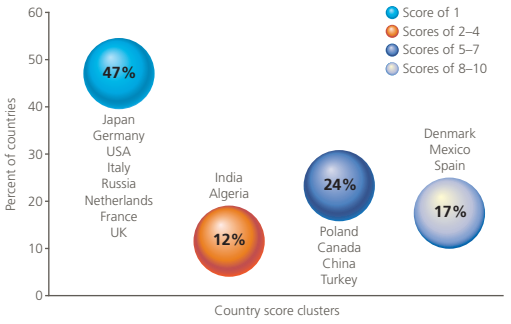

Figure 5. Percent of countries at each of the four score clusters described as score of: 1 = no information available; 2–4 = formal policies, standards, programmes do not address family and caregivers specifically; 5–7 = formal policies, standards, programmes highlight the role of families and caregivers, but with no/limited evidence of implementation; 8–10 = formal policies, standards, programmes highlight the role of families and caregivers and programmes are widely implemented.

- Relevant to the situational policy analysis are considerations of DAWN2 FM survey responses[3] (Figure 6) which indicate that:
  - less than one-quarter (country range: 9.4–43.3) of FMs participated in diabetes education, but 72.1% (range: 58.1–83.5) of those who had taken any education found it helpful
  - 29% of FMs did not rely on any sources of education, information or support
  - Figure 6 shows the FMs responses from each of the countries regarding education attendance and benefit.

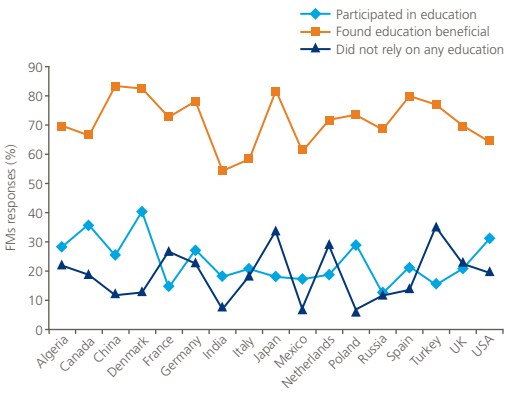

Figure 6. Percent of FMs responses from each of the countries regarding education attendance and benefit.

Summary of three indicators by country (Figure 7)

- Countries which scored ≥5 on three indicators are Canada, China, Denmark, Mexico, Poland, Spain and Turkey. These countries not only have policies and programmes in place for the three areas of education, but they have also put them into practice entirely or partially.
- For eight countries, information was not available on policies and programmes to educate family and caregivers – France, Germany, Italy, Japan, Netherlands, Russia, the UK and USA.

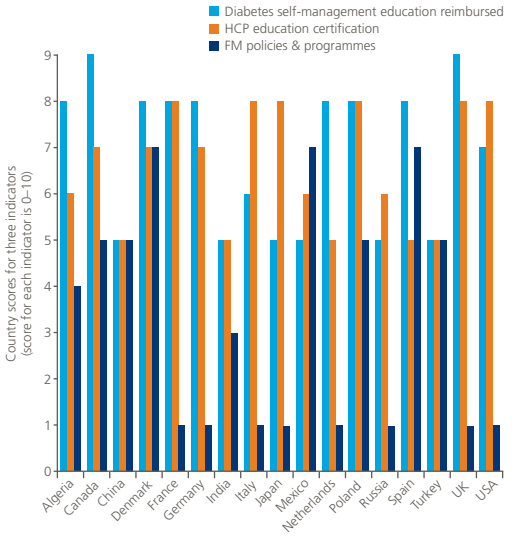

Figure 7. Country scores from 1–10 regarding policies and programmes for diabetes self-management education reimbursement, HCPs education certification and FM policies and programmes.

Global summary (Figure 8)

- Globally, all countries had certified education for diabetes HCPs in patient-centred care in place, but just over one-third of countries had fully endorsed certified education for HCPs.
- The majority of countries also had reimbursement programmes in place for diabetes self-management education for PWD. Half of the countries had reimbursed for PWD self-management education.
- About 41% of countries had formal policies and programmes to educate FMs and caregivers, but only 17% had implemented them.
- When comparing the PWD, HCP and FM survey results with the situational/policy results in each country for each of the indicators, it cannot be said that having policies or programmes in place and endorsed increases the likelihood that PWD, HCPs and FMs would attend diabetes education.

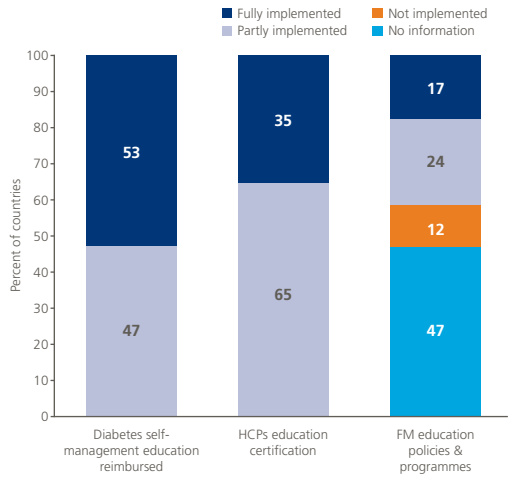

Figure 8. Global responses of countries regarding policies and programmes for reimbursement of education (PWD), certification of education (HCPs) and family/caregiver education.

Conclusions/ recommendations

- The 2012 situational policy desk research proved useful for identifying national public policies responsive to diabetes education and training, but these did not align with survey participation rates for diabetes education and training as reported by PWD, FMs and HCPs.
- In the 2012 situational analysis of national policies, it was found that making education accessible, reimbursed and part of mandatory treatment or care did not result in higher diabetes education participation rates for PWD, FMs and HCPs. Further research on policies and diabetes education programmes is needed to understand why participation rates are low.
- Policies are needed to support education for PWD as it has been shown in other studies that PWD who participated in diabetes education reported fewer psychological problems and enhanced self-management compared with those who had not participated in any educational programme.[5]
- As part of a global call to action, each country has a responsibility to make improvements in diabetes education and training access, standards or certification, and reimbursement, all of which promote active stakeholder participation and improved diabetes care and outcomes.

References

1. Peyrot M, et al. *Diabetes Res Clin Pract* 2013;99:174–84.
2. Nicolucci A, et al. *Diabet Med* 2013;30:767–77.
3. Kovacs Burns K, et al. *Diabet Med* 2013;30:778–88.
4. Holt RIG, et al. *Diabet Med* 2013;30:789–98.
5. Willaing I, et al. Abstract presented at EASD, Barcelona, 2013, A-1136.

Abbreviations

DAWN, Diabetes Attitudes, Wishes and Needs (study); DAWN2, second Diabetes Attitudes, Wishes and Needs (study); FMs, family members; HCPs, healthcare professionals; IAPO, International Alliance of Patients' Organizations; IDF, International Diabetes Federation; IPPC, International Publication Planning Committee; PWD, people with diabetes.

Acknowledgements

The DAWN2 study is a global partnership of established organisations, including the IDF, the IAPO and the Steno Diabetes Center, and Novo Nordisk. DAWN2 study group: R. Malek; J. Wens; J.E. Salles; K. Kovacs Burns; M. Vallis; X. Guo; I. Willaing; G. Reach; N. Hermanns; B. Kulzer; S. Kalra; A. Nicolucci; M. Comaschi; H. Ishii; M. Escalante; F. Pouwer; A. Kokoszka; A. Mayorov; E. Menéndez Torre; I. Tarkun; M. Davies; R. Holt; A. Forbes; N. Munro; M. Peyrot; with S.E. Skovlund and C. Mullan-Jensen (Novo Nordisk).

For more information contact dawninfo@novonordisk.com

Funding: Novo Nordisk A/S funded the DAWN2 study, including planning and designing in collaboration with national, regional and global partners. Novo Nordisk funded medical editing support by Bioscript Medical Ltd and independent data collection by Harris Interactive. Data analysis and publication preparation were performed by members of the DAWN2 IPPC and authors. DAWN and DAWN2 are registered trademarks of Novo Nordisk.