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**Study rational and objectives**

The DAWN2™ study and action platform builds upon the foundation of the original DAWN study. It aims to improve our understanding of the unmet needs of people with diabetes and their family members and healthcare providers and facilitate dialogue and collaboration among all key stakeholders. The study investigates the level of implementation of person-centred diabetes care that incorporates chronic care strategies, including self-management education and psychosocial support.5,6

The primary objective of the DAWN2 study7 is to assess potential barriers to and facilitators of active and successful management of diabetes among three key stakeholder groups: people with diabetes, their family members and healthcare providers. Secondary objectives are:

- To explore and pinpoint the most important facilitators and barriers to person-centred chronic care for each stakeholder group.
- To identify successes, wishes, needs, preferences and priorities for change among all key stakeholders in diabetes.

**Study methodology**

The methodology of the DAWN2 study has been described in detail elsewhere.7 The primary component is a set of cross-sectional national surveys conducted in 17 countries across four continents: Algeria, Canada, China, Denmark, France, Germany, India, Italy, Japan, Mexico, the Netherlands, Poland, Russian Federation, Spain, Turkey, the UK and the USA. Separate surveys were conducted for each of the three stakeholder groups. A variety of sampling frames and recruiting methods were used to obtain diverse samples and reduce method-based bias. Parallel samples were drawn in each participating country. The final study population consisted of 15,438 participants, including 8,596 adults with diabetes, 2,057 adult family members of adults with diabetes and 4,785 providers of adult diabetes care.8,9,10

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A summary of the main topics covered by the study questionnaires is presented in Figure 1. The questionnaires incorporate several components, including: items from the original DAWN study (to permit assessment of trends over the past decade); newly developed questions (to investigate areas such as discrimination and the needs and preferences for better education and support); and open-ended questions.

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**Figure 1. Questionnaire topics.**

- Health/quality of life (people with diabetes and family members)
- Attitudes and beliefs about diabetes
- Diabetes training (healthcare professionals)
- Diabetes profile
- Care and support/involvement
- Future needs
- Active self-management
- Diabetes education and information
- Demographic and practice characteristics

(to capture the individual narratives of respondents). Some of the new questions were developed, adapted or modified with inspiration from existing validated instruments, and several standardized instruments were also incorporated into the questionnaires. The questionnaires were designed to permit comparison across stakeholder groups where possible. Questionnaires were administered over the Internet, by telephone and in-person using the native languages of the participating countries.

The DAWN2 surveys were designed to provide evidence-based guidance for all diabetes stakeholders regarding existing levels of quality of life and quality of care and how these can be improved at the local, national and international levels. Key research topics included:

- Comparison of participating countries in terms of healthcare processes and outcomes.
- Changes in healthcare processes and outcomes during the period between DAWN and DAWN2.
- Levels and determinants of quality of life, psychosocial adaptation, and self-management behaviour among people with diabetes, including their own beliefs and characteristics as well as interpersonal, organizational, community, and societal contexts.
- Levels and determinants of family member burden of diabetes and support for people with diabetes, especially particular forms of support associated with diabetes outcomes.
- Levels and determinants of healthcare provider delivery of person-centred diabetes care and support, especially those associated with diabetes outcomes, e.g., DSME.
- Differences versus similarities between the beliefs, behaviours and roles of primary care physicians, diabetes specialists, nurses, and dieticians.
- Events that created turning points in how people live with and manage diabetes; perceptions of unmet needs and the individual, community and societal changes required by stakeholders.

Figure 2. A new needs model for diabetes.

Me:
Being able to cope with my condition, and living a full, healthy, and productive life.

Family and friends:
Emotional and practical support in all aspects of my condition.

Community:
Medical care and treatment: Access to quality diagnosis, treatment, care, and information. Work/school: Support for, and understanding of, my condition. Living: Having the same opportunities to enjoy life as everybody else.

Society:
A healthcare system, government, and public that are willing to listen, change, and be supportive of my condition.

Conclusions
The DAWN2 study and action platform, undertaken by Novo Nordisk in partnership with the International Diabetes Federation (IDF), the International Alliance of Patients’ Organizations (IAPO), the Steno Diabetes Center, and a number of other national, regional and global partners, is designed to support a paradigm shift from an acute care model to a person-centred, integrated chronic care model, such as the WHO Innovative Care for Chronic Conditions framework. Optimal diabetes care is best achieved by collaboration between people with diabetes, their family members and healthcare teams that are adequately resourced and motivated to work together. Effective collaboration is influenced by other stakeholders, including healthcare organizations, communities, and societal policy-makers (see Figure 2 on page 15). Research-based evidence provides the foundation for optimizing diabetes care strategies, but the perspective of people with diabetes is important in informing all aspects of diabetes care. People with diabetes have the right to be informed and educated about diabetes, to have access to proper diabetes care, and to be full participants in society without discrimination because of their condition.

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DAWN2 builds upon a decade of efforts to improve person-centred diabetes care. The DAWN2 study and action platform should enhance opportunities for improving diabetes self-management and care processes by identifying the critical drivers of active self-management and person-centred diabetes care. It is the hope of those involved in DAWN2 that the study findings will facilitate the development and implementation of innovative and effective strategies by all stakeholders to improve psychosocial and health outcomes among those living with diabetes.

References

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