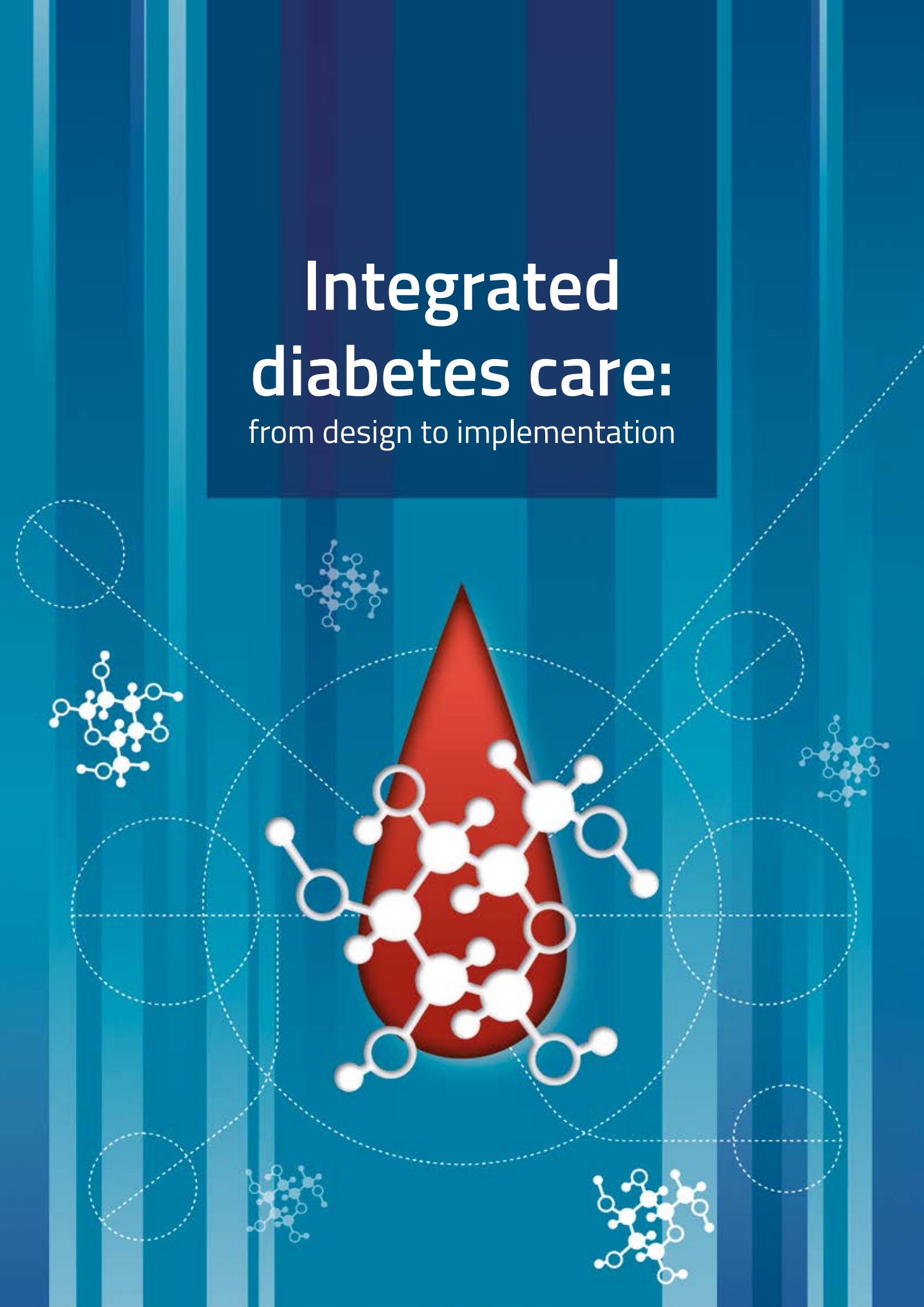
Integrated diabetes care:

from design to implementation



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SANOFI has sponsored the development of this project..

The Institute for Health and Strategy (SI-Health) has produced this document.
with the contributions of the workgroup.

Integrated diabetes care: from design to implementation

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Authors: Ander Rojo, Patricia Arratibel, Rafael Bengoa and the multidisciplinary group of diabetes experts.

Edited by: The Institute for Health and Strategy (SI-Health)

Graphic design: Daniel Gibert Cobos - www.dfad.biz

Workgroup

Javier Carmona de la Morena. Primary Care Managing Director of Toledo (GAP). Castilla la Mancha.

Fco. Javier Rodríguez Alcalá. Medical Director. Primary Care Management of Toledo. SESCAM.

Iván Vergara. Director of the Lodosa area. Navarra.

Rodolfo Montoya. Director of the Ancín area. Navarra.

Domingo Orozco. Medical Specialist in Family and Community Medicine. Departamento de San Juan Alicante. Comunidad Valenciana.

María Concepción Fernández. Primary Care Medical Director. Departamento de Elda. Comunidad Valenciana.

Milagros Cucarella. Primary Care Nursing Director. Departamento de Elda. Comunidad Valenciana.

Sara Rodriguez. Director of Primary Care. Instiutut d'Assistència Sanitària i Institut Català de la Salut. Girona. Cataluña.

Montse Canet. Deputy Director of Primary Care. Institut d'Assistència Sanitària i Institut Català de la Salut. Girona. Cataluña.

José Antonio Saz. Representative of the Spanish National Federation of Diabetes (FEDE) in Aragón, Secretary of the FEDE Board of Directors and President of the FEDE Commission on Chronicity.

This document has been reviewed by Dr. Anna Novials, Pathogenesis Team Leader at IDIBAPS, scientist at CIBERDEM and President of the Spanish Diabetes Society.

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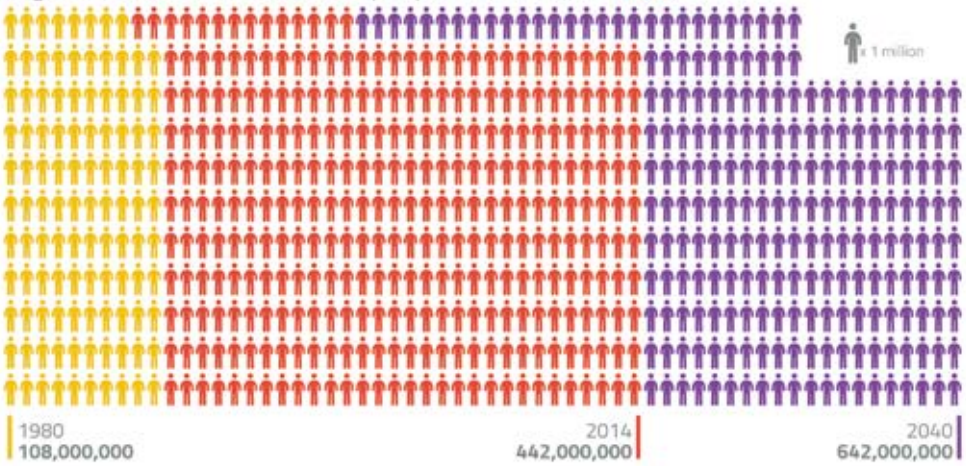
Diabetes Figures

Diabetes across the world

Large increase in the number of people with diabetes (1, 2)



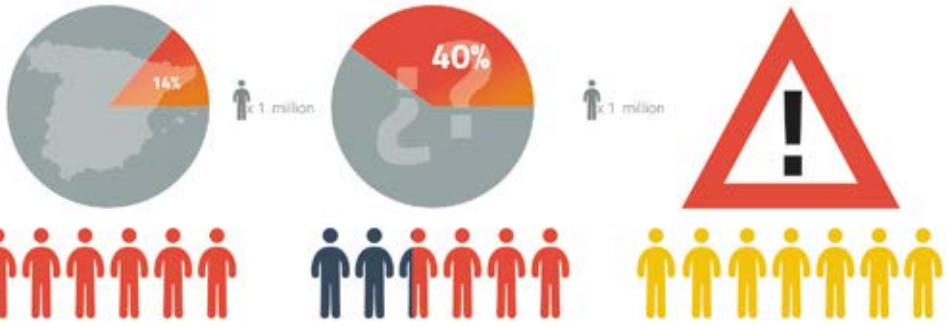
The cost of diabetes worldwide

People with diabetes consume twice as much healthcare resources as non-diabetic people.

Healthcare systems spend 7-14% of their budgets in managing this disease (3, 4).

Diabetes in Spain

In Spain in 2012 (5):



6 million people (14% of Spaniards) have diabetes

Approximately 40% of them were unaware they had diabetes

7 million people had prediabetes

The consequences of diabetes in Spain

25,000 die every year due to diabetes (6)

Diabetes is responsible for 7 out 10 amputations (excluding trauma) (6)

16% of blind people in Spain became blind due to diabetes (6)

The cost of diabetes in Spain

In 2012, the direct costs of diabetes in Spain reached 5,8 billion euros, which is 8,2% of the healthcare budget (7). This is equivalent to the whole healthcare budget of the Valencian Community (8).

Estimates suggest that the indirect costs (absenteeism and social costs) reaches 17.6 billion euros (6)

1 Introduction

The data presented show that diabetes is at the centre of the global epidemic of chronic diseases and is one of the most serious health problems that exist today. If not handled properly, the exponential increase in the number of patients will consume a large amount of health resources in the future, posing a huge threat to health systems throughout Europe, as well as Spain.

In this context, early diagnosis and good control of diabetes has become a priority for all the organizations and health areas in Spain, which already allocate large amounts of healthcare resources to the management of this disease (7). Although we know how to prevent, detect and control the disease, there is still plenty of room for improvement.

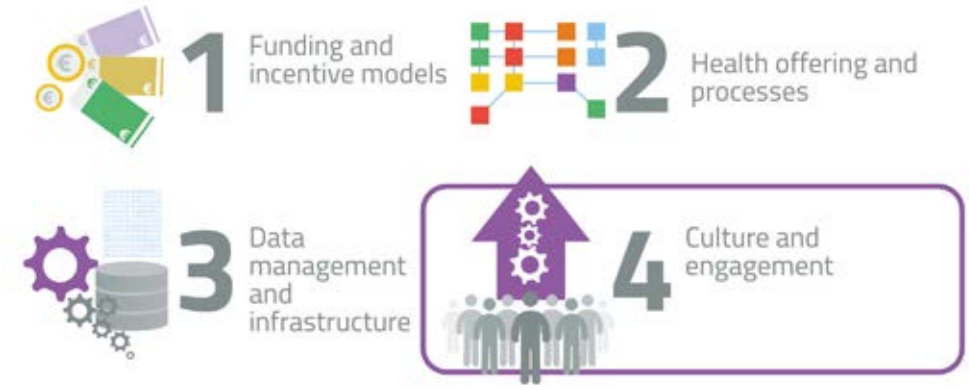
Integrated care continues to provide one of the best answers to the problems of the current approach to diabetes (both type 2 and type 1). Although we know what needs to be done to move forward with integration, there are still many barriers at the organizational, financial and system culture level, as well as in the access to quality data. This makes it difficult to implement the necessary changes that would allow a fully integrated system capable of responding successfully to the disease.

In view of this situation, in 2018, the "*expert group for the integrated care of diabetes in Europe (EGIDE)*" was set up with the mission of identifying and proposing concrete solutions. These would help overcome the barriers that prevent the integration of diabetes care in Europe, thus contributing to accelerate the shift towards the adoption of this new model of care.

In their analysis, the EGIDE group of experts identified 4 facilitating elements that would help the migration towards a model of integrated diabetes care in Europe:

1. **Funding and incentive models**: develop new funding models based on final outcomes, abandoning the current funding model based on the volume of care activity.
2. **Health offering and processes**: evolve from the current hospital-centric care model focused on the cure of acute events, towards a new model centred on preventive, proactive and coordinated care that redirects its activity towards primary care and the community.
3. **Data management and infrastructure**: develop information systems that allow results-based care and encourage their interoperability to share information among providers.
4. **Culture and engagement**: develop an organizational culture that encourages a high degree of engagement from staff with the change.

▼ Figure 1: Four major enablers identified by the EGIDE group to evolve towards a model of integrated diabetes care in Europe



Created by SI-Health.

The real transformation of the care model will only be achieved when these 4 elements are developed. However, it is necessary to emphasize that in Spain, these facilitating elements are not being developed with the same intensity. There are limited cases of changes in the **funding and incentives models** by payers, however, the search for improvements in **health offering and processes**, as well as in **data management and infrastructure**, are much more numerous and have been pushed for years.

Proof of this are the 57 cases registered until 2016 by the Spanish Observatory on Integrated Care (OMIS) of the New Health Foundation (9). These experiences show that, just like what happens internationally, the integrated care agenda is moving forward strongly in Spain. It serves as evidence of how coordination is possible. However, there are different rates in progress and uneven development between regions regarding the introduction of this type of improvements. As an example, the shared Electronic Health Record (EHR) is available in some Autonomous Regions (AR) such as Galicia or the Basque Country since 2011, while others are still advancing in their development.

In addition, many of these improvements are experiencing numerous problems when being implemented, deployed and scaled-up. The lack of leadership, the lack of support from stakeholders or the low involvement of staff and clinicians are some of the most repeated reasons that explain the failure of many of these initiatives.

These reasons reveal how the success or failure of improvements depends on cultural elements and context which significantly condition the implementation capability of organizations. Therefore, to increase the probabilities of implementation success of these changes, it is necessary to work with soft skills that allow the development of an organizational culture of change.

The facilitating element of **culture and engagement**, as suggested by EGIDE, will be the focus of this document. This is done with the aim of supporting Spanish healthcare organizations with the creation of a receptive context for change that facilitates the implementation of improvements in **health offering and processes**, as well as in **data management and infrastructure** (figure 1).

In most cases, health organizations in Spain direct all their efforts towards the introduction of changes in **health offering and processes**, as well as in **data management and infrastructure**, but obviate the need to work these complementary capabilities that facilitate the implementation of these changes. This document aims to fill that gap.

Although we know how to prevent, detect and control diabetes, there is still a great deal of margin for improvement for its comprehensive approach.

There are numerous projects and studies in diabetes that analyse the changes needed to advance the integration of diabetes care, however there is an absence of work that seeks to shed light on how to advance the development of an organizational culture of change.

The purpose of this document is to help organizations develop an organizational culture of change that allows them to overcome existing barriers and achieve successful implementation of these complex changes.

2 Objectives of the project

This project has a double objective:

1. Analyse how Spain fosters skills to create a receptive context for the implementation of diabetes improvement/change.
2. Propose a series of recommendations that help organizations or health areas to develop an organizational culture of change that facilitates overcoming barriers and the successful implementation of improvements to integrate diabetes care.

This work aims to be useful for the different stakeholders that today have responsibility in the design and implementation of the new organizational model and management of diabetes in their health area. Although this work is aimed at top managers in the healthcare sector, the content and framework that is presented below can also be adapted to the macro or micro level of the health system. While this document has focused on diabetes, its learning can also be extended to other chronic illnesses.

3 Methodology

In order to produce this document, the following work phases have been followed:

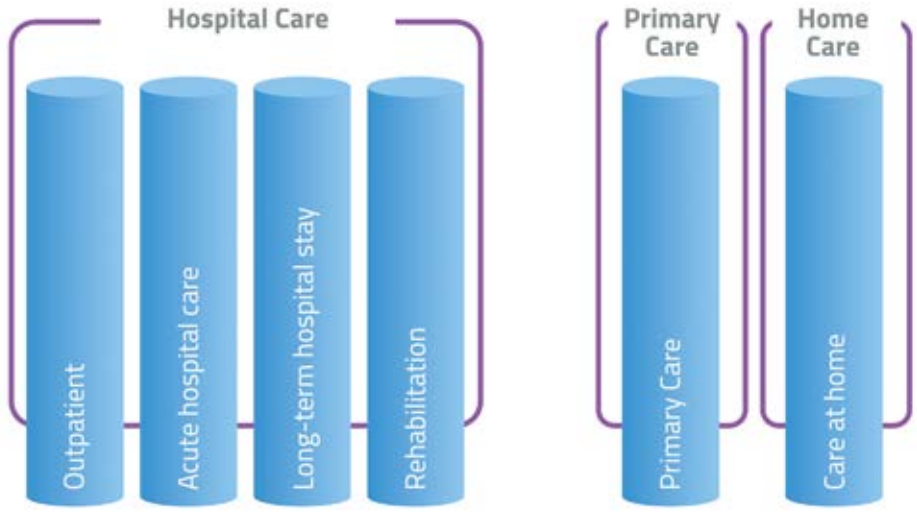
1. National and international literature review on change management in diabetes, using the MEDLINE database, in addition to a free search without limitation in study type or language. The following searches were used: "diabetes change management"; "Diabetes implementation"; "Integrated care implementation diabetes"; "Barriers integrated care diabetes"; "Facilitators integrated care diabetes"; "Collective leadership"; "Healthcare professionals' engagement".
2. Analyse the literature review and develop the project's theoretical framework.
3. Prepare the interview questionnaire based on the developed theoretical framework.
4. Identify the health areas and the participating experts. The group of experts had to meet the following criteria:
    a. Develop leadership functions in a health area that is implementing improvements in the management of diabetes, whether at the managerial or clinical level.
    b. Be a representative sample of Spain's geography.
5. Identify a patient representative through the Spanish Diabetes Federation (FEDE), so as to have their voice included.
6. Gather information through individual interviews with the experts of each selected health area, with the aim to:
    a. Analyse the current context of each health area for the implementation of changes in their approach to diabetes.
    b. Understand how each of the identified change management elements are being worked on.
7. Analyse the information gathered in the interviews and prepare the guide to help create an organizational culture of change.
8. Send the document to the experts for final review and approval.

This process guarantees the inclusion of scientific evidence, while also gathering the experience of those responsible for the integration of diabetic care.

4 The current healthcare model is not getting the expected results

The current fragmented and passive healthcare model is not fit to carry out the effective management of a chronic disease such as diabetes. This model is characterized by on demand episodic care, with the successive involvement of multiple clinicians and with little connection between the different healthcare providers (figure 2).

▼ Figure 2. The current healthcare model organized in silos



Adapted from Accountable Care Organizations, 2012.

This model focuses on the sporadic treatment of the chronic patient when there is an issue, focusing only on the patient's repair instead of on the control and prevention of complications before they appear.

This is a suitable model for acute episodes, but it is not useful when seeking to respond effectively and efficiently to a chronic disease such as diabetes. To do so would require more coordinated and proactive support from the health system.

Different models of integrated care for chronic patients have been emerging for years (10 - 13), among which the Wagner Chronic Care Model (14-18) stands out. This model has been able to demonstrate better clinical outcomes and more efficient care processes in different settings and care models (19-21). In addition, savings and efficiency data derived from a lower number of hospitalizations and re-admissions have been obtained (22, 23).

These models encourage, as proposed by the EGIDE group of experts, the search for improvements in health offering and processes, as well as in data management and infrastructure, to jointly build a more integrated, preventive, proactive and coordinated system capable of responding effectively and efficiently to chronic diseases.

In Spain, for several years, progress has been made in the reorganisation of the health-care model to achieve better management of chronic diseases. In some Autonomous Regions, what we generally call "integrated health systems", have begun to emerge. These integrated systems are alliances between different providers that are responsible for working in a coordinated manner and offer an integrated care pathway for their populations (figure 3). These integrated pathways, designed by all the stakeholders involved in diabetes management, as well as by patients, allow personalized care while obtaining better outcomes.

▼ Figure 3. The healthcare model of the future: breaking silos

Adapted from Accountable Care Organizations, 2012.

In many Regions, these alliances have become formalized through the administrative integration of the different providers in a specific geographic area. Examples of this are the Integrated Health Organizations of the Basque Country (OSI) or in the Organizational Structures of Integrated Management of Galicia (EOXI). In other settings, they have attempted to integrate clinical practice while maintaining the traditional administrative structures with differentiated Primary and General Hospital Directorates. The Autonomous Regions of Madrid or Navarra have gone down that route.

However, although in the Regions where there is administrative integration, progress is being made more rapidly, today there are still no areas that work fully within a chronic management model; the integration of care continues to be a goal rather than a reality in Spain.

Most of the Autonomous Regions are moving towards integrated care through the design of chronic strategies or health plans. In practice, there are important barriers that make it difficult to go from design to implementation. Many of the changes proposed to adapt the model are not having the expected success. In fact, we have been trying to move towards integrated care for a decade and clinical practice has not changed as

much as anticipated.

This shows that the movement towards integration is extremely complex, and although there are different rates of progress among the Autonomous Regions, they are all having a hard time abandoning the traditional passive and repair model. As a result, patients with diabetes continue to receive fragmented, on-demand care focused on the cure of acute events. Proof of this is the inability to reduce the incidence of diabetes; currently only half of the patients diagnosed have good control of key indicators such as glycosylated haemoglobin, blood pressure or LDL cholesterol (24). If we combine these 3 parameters, less than 19% of patients have an adequate control of diabetes (25).

Many of the changes that are proposed to integrate care in diabetes are not having the expected success.

Spain has made progress in the creation of integrated health systems and in the development of information systems, however, the management of diabetes is not adequate; something is missing. It is necessary to reinforce these changes with the implementation of interventions that seek greater staff engagement and a different style of leadership.

5 The challenge is implementation

Many of the improvement initiatives that are proposed to advance in the transformation of healthcare provision face strong resistance to change. In fact, many studies indicate that most transformational projects do not achieve the desired change.

There are multiple causes for these failures, and they vary according to the project and the context (figure 4). The causes include a lack of leadership and lack of involvement with implementation of health policy teams, the disconnection of the project with the operative reality, the lack of capacity and funding, lack of support from stakeholders, low involvement of staff and clinicians or the low participation of patients and the public (26-28).

In a recent study on the implementation capacity in the US (Milbank Memorial Fund), leadership factors, availability of resources, public and staff's support are identified as important, whether it be for success or failure (29).

Similarly, the latest OMIS (Spanish Observatory on Integrated Care) report highlights as the main barriers to integrated care the unavailability of information systems, the resistance to change from staff, the rigidity of social and / or health systems and, to a lesser extent, the economic restrictions. On the contrary, they identify institutional engagement, staff engagement and teamwork, as the main facilitators of integrated care programs in Spain (9).

In diabetes there are also studies that have obtained similar results when analysing the main barriers and facilitators in the implementation of changes in the care model. Among others, the organizational culture, staff engagement or the leadership style are some of the elements that are repeated most frequently (30-32).

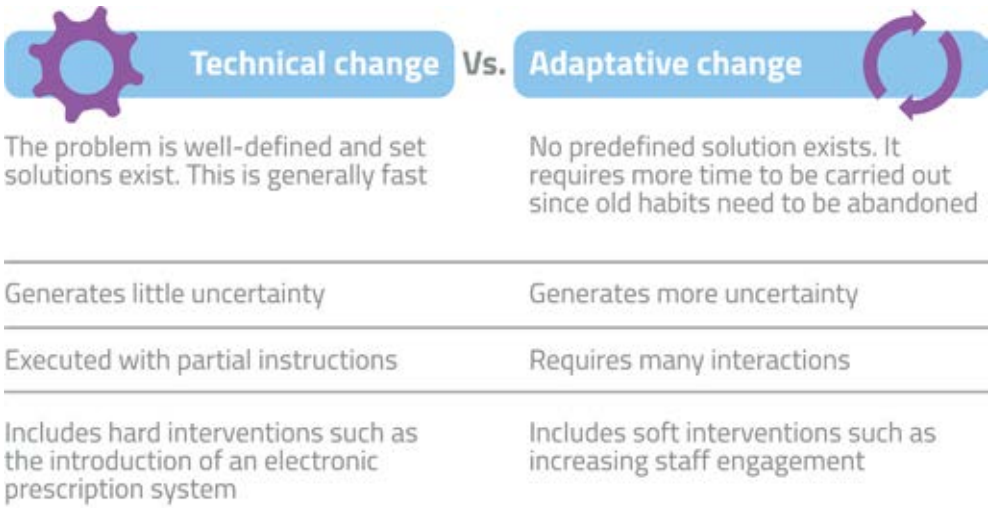
▼ Figure 4. Reasons linked with failed change strategies

Adapted from Matta, 2003. Watt, 2005. Best et al, 2012. Forest, 2017. Goderis, 2009. Busetto, 2016. New Health Foundation, 2016.

If we analyse the reasons exposed in these studies, the strategies of change fail with implementation because the reform is not thought of as an "adaptive change", but it is fundamentally considered a "technical change" (33). However, most of the challenges with reform are not merely technical, but also cultural or adaptive, where the elements of context, such as the engagement of staff and patients, play a pivotal role.

Adaptive change is based on the engagement of people to adopt new attitudes, competences, beliefs and behaviours. As an example, administering medication to control diabetes is a technical approach, while encouraging staff engagement in the search for improvement in diabetes is an adaptive change (figure 5).

▼ Figure 5. Technical change vs. adaptive change



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Even today, many decision-makers in the health sector believe that implementing technical changes will advance towards an integrated health system. For example, implementing telemonitoring for patients with diabetes or an electronic prescription system. However, although these technical changes are important, they are not the key to success. To achieve the change of the model, it is necessary to develop an array of "soft" interventions that help create a cultural context receptive to change.

These elements of context are not usually considered, and the lack of adaptive change is one of the main causes of failed reform (34). There is ample evidence on risk aversion in individuals and organizations to change despite overwhelming evidence in favour of a change. The fear of losing control, the excess of uncertainty, discomfort or fear of changing the way things are, are some of the reasons why people resist change.

The lack of adaptive change is one of the main causes of failure in the implementation of the reforms.

The context is highly relevant since it affects the capacity to implement reform in a very significant way; where some implement a strategy without too many difficulties, others fail when they are trying to implement the same changes.

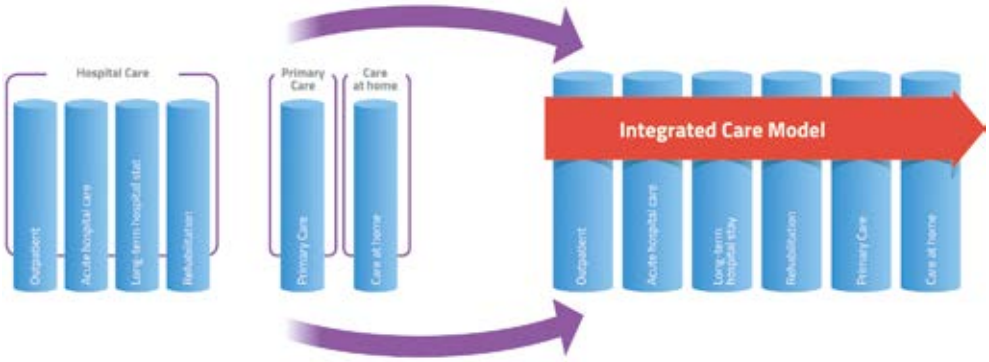
The most important influence on behaviour in health organizations is "culture and engagement".

Culture involves assumptions and values deeply rooted in organizations which lead to particular patterns of behaviour that can facilitate or hinder change. In other words, culture refers to "the way we do things here."

When the culture of the organization and low staff engagement act as a barrier in the implementation of improvements, it is necessary to encourage a cultural change to modify the behaviours and practices of the organization.

This is precisely the "raison d'être" of this document. It presents an organized framework for those who seek to modify the behaviour of their organization with the aim of facilitating the implementation of changes that will accelerate the transition to the new integrated health care model of diabetes (figure 6).

▼ Figure 6. Accelerating change towards an integrated healthcare model



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6 Integrated diabetes care: from design to implementation

As we have seen, the vast majority of the Autonomous Regions in Spain are progressing at different rates towards a new diabetes care model that is more coordinated, integrated, proactive and preventive.

In this context, managers and healthcare staff involved in the management of diabetes are leading increasingly complex changes. Although the technical aspects are important, all these **leaders describe cultural factors (those that they require an adaptive change to move forward) as their biggest barrier**.

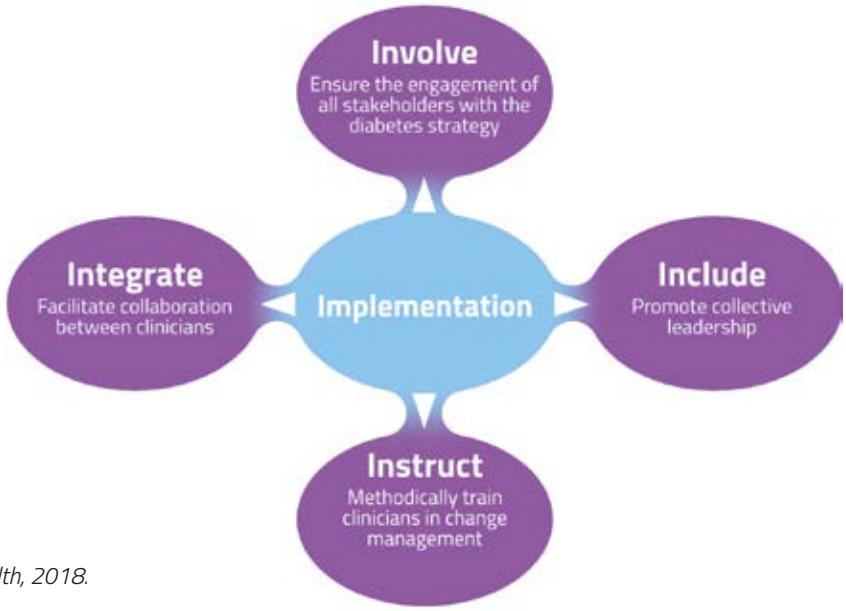
Despite this, most strategies for change in healthcare do not usually have an intervention plan that includes adaptive change. In many cases, a receptive context for change has not been created and therefore change is blocked.

In order to overcome these resistances, in the healthcare sector there are several strategic frameworks that have been used successfully to create a receptive context for change that facilitates and accelerates the implementation of improvements (33, 35-40).

With this in mind, the framework of the 5 "i" designed by The Institute for Health and Strategy proposes 4 interrelated elements that would have to work simultaneously to develop an organizational culture of change.

This diabetes specific framework is available below (figure 7). Leaders interested in accelerating the implementation of changes in diabetes will have a framework that will guide them to achieve their goals.

▼ Figure 7. The 5 "i" framework for change implementation in diabetes



SI-Health, 2018.

1. Involve: Ensuring the engagement of all stakeholders with the diabetes strategy

To ensure the support of all stakeholders with the vision, strategy or diabetes plan, it must be designed to meet a series of requirements that allow the construction of a coherent and high-quality strategy that is accepted by the different staff groups and relevant stakeholders:

- **Evidence:** The actions or interventions that make up the plan should be designed based on the latest available evidence. This allows the presentation of a solid and robust case for healthcare staff to support change strategies, creating a favourable climate for reform. Showing examples of good practice cases from other settings, emphasizing the positive results obtained, both in terms of health and efficiency, can be especially useful to encourage the involvement of the different stakeholders.
- **Participative:** The design of the strategy should be carried out with the participation of the maximum possible number of specialists involved in the management of diabetes (endocrinology, cardiology, primary care, internal medicine, ophthalmology, nephrology, chiropody, nursing, pharmacy, etc.), as well as with patients. In this regard, the proper configuration of a multidisciplinary working group and the integration of the patient's voice is essential to ensure the involvement of all interested parties.
- **Patients:** The use of co-creation and co-design methodologies with patients should be considered. Based on the patients' and caregivers' experience, healthcare staff should work in partnership to prioritize areas for improvement and redefine, create or improve a particular service or process.
- **Achievable:** The most successful plans are those that consider issues of coherence and alignment between objectives, feasibility and implementation requirements. That is, the plan must be realistic and achievable, otherwise, it will not have the necessary support for its implementation.
- **Flexible:** A broad vision is more likely to get support for change than a very specific and detailed model. It is necessary that plans are flexible, are understood and have a clear and consistent narrative that avoids misinterpretation.
- **Incentivise collaboration**: the plan should incentivise the achievement of its goals and objectives. As an example, a plan that encourages the integration of care should incentivise collaborative work among the different specialists that provide the service.
- **"Early wins":** Ensure that the strategy has a method of evaluating and monitoring the results to grasp their impact. Reflecting on how to obtain and report "early wins" in any of the initiatives that make up the strategy is especially useful to involve the different stakeholders and maintain interest in the change.
- **Dissemination:** Once the plan has been designed, it must be communicated and disseminated amongst all stakeholders in order to anticipate potential barriers or pressures that may arise, as these may hinder the implementation. As an example, unions, patient groups, the population itself or the political opposition can pose an important barrier that needs to be managed. Having the support of diabetes opinion leaders can be useful to influence and mobilize different interest groups as well as diffuse any resistance.

2. Include: Encourage collective leadership

The experience accumulated during the past decades demonstrates that traditional top-down leadership does not favour the staff's engagement with change, given that it does not require their participation. If senior managers impose a culture of "control and command" and limit the autonomy of staff to make decisions, their motivation and engagement is reduced, greatly hindering the implementation of changes or improvements (41-44).

Reality shows that change will not happen if staff are not involved. Their involvement is critical . Due to this, in recent years, a new style of leadership has emerged that is more participative and inclusive with staff in the healthcare sector, as well as with patients: collective leadership (45, 46).

In this new style of leadership, the concept of heroic leaders who change the performance of the organization on their own is abandoned and leadership is seen as shared, participatory and distributed throughout the organization (clinicians, nurses, social workers, patients, managers, etc.). The monopoly of the vision by a single person is replaced by a vision shared by all the stakeholders, and the culture of "order and command" and "hierarchical control" is replaced by a culture that offers greater autonomy and freedom for staff to lead changes and innovations.

In short, collective leadership implies that staff become managers and leaders of change. They are, by proximity to the patient and know-how, the best suited to improve the delivery of care. To achieve this, a culture must be created in which the "status quo" is questioned, where ideas are heard and valued, and where innovation and entrepreneurial spirit are fostered.

This new style of leadership is characterized by being shared among the leaders and stakeholders that make up the local context. It requires greater generosity with power and seeks a balance between the decisions made from above and those that come from below (bottom-up).

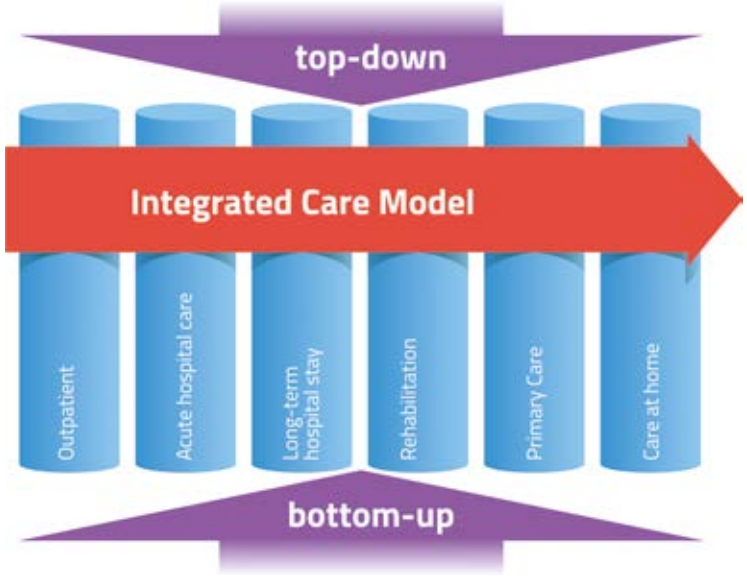
The traditional leadership of top-down control is disconnected from those who do the clinical work and local management. This does not mean that collective leadership replaces traditional top-down leadership but instead complements it by encouraging innovation from the ground up to transform provision of care. The changes needed in an improved approach to diabetes care requires both types of leadership.

It is clear that some decisions must continue to flow from top to bottom, such as the design of the strategic plan. When considering implementation, it is necessary to abandon the concept of control about change processes and allow healthcare staff to use local knowledge to generate bottom-up improvements.

The necessary changes in the approach to diabetes require a balance between top-down and bottom-up strategies.

In order to implement such complex change, it is necessary to create a new balance between top-down and bottom-up leadership (figure 8). Bottom-up, is characterized by being more motivating, integrating, decentralized and shared. It is the best way to involve healthcare staff with change and encourage innovation from the ground up to transform the diabetes care model.

▼ Figure 8. The necessary changes for diabetes management requires two types of leadership



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To exercise this new style of leadership, leaders must change their mindset and begin to create favourable conditions for staff to feel motivated and lead transformative diabetes initiatives "from below", that once their effectiveness is tested, could be deployed to the rest of the organization/system. Some actions or practical tips that will help leaders encourage "bottom-up" innovation of the staff involved in the management of diabetes are (45, 46):

- **Establish a clear vision of change that provides direction to staff,** as well as shared objectives that foster collaboration and the creation of partnerships in the search for innovations.
- **Clarify the roles and functions of each team member** and establish working agreements or standards that specify how they should behave together to achieve their objective. As an example, determining the appropriate decision-making process.
- **Encourage the involvement of all staff groups in the implementation of improvements in diabetic patient care.** Ensure that all staff adopt leadership roles in their work and assume the individual and collective responsibility to provide safe, effective and high-quality care for patients with diabetes. Responsibility is shared among all team members.
- **Give power to staff, allowing them greater autonomy in the design and implementation of innovations in diabetes.** Their ideas must be heard and valued, and they must be given authority and freedom to make decisions in their field of action. Thus, by involving staff in important decision-making and giving them control over their work, entrepreneurship and innovation are fostered.
- **Facilitate or create the conditions** so that staff who care for patients with diabetes can dedicate part of their time to **work internal organizational innovation processes.**

- **Celebrate successes and encourage** employees to lead innovations.
- **Evaluate staff performance in a structured way and offer them feedback** to improve their performance, since there is a strong link between the evaluation of personal performance and staff engagement
- **Compare professional performance between staff, teams or organizations** through tools such as benchmarking. The comparison of performance aimed at achieving competitive behaviours encourages motivation and staff engagement.

One of the main advantages of collective leadership is that it accelerates the change management process thanks to its ability to integrate and involve staff. Several studies suggest that giving autonomy to staff, allowing them to use a wide range of skills, ensuring that the work is satisfactory and giving them support and recognition are key aspects to encourage their engagement (46-48).

However, the benefits of having engaged staff are not limited to facilitating the introduction of changes and innovations, but also better performance and organisational results.

The evidence shows that engaged staff perform better because they work harder; they comply more frequently with standardized processes; they prioritize teamwork; they have lower levels of stress and absenteeism; they think more creatively and care more about improving the organization's results (46).

Organizations with engaged staff provide a better patient experience, make fewer mistakes, have lower rates of infection, mortality and absenteeism and are under better financial management (49).

3. Instruct: Methodically train staff in change management

In order for staff, who care for patients with diabetes, to be able to lead transformative initiatives, they must be trained in management skills, continuous improvement and change management.

One of the most useful tools for improving the quality of health services are improvement methods. Continuous improvement training gradually and sustainably increases quality thanks to the learning provided by the results of each evaluation cycle.

As an example, the PDSA (Plan-Do-Study-Act) method is currently one of the most used methods of improvement in healthcare (50). Its usefulness has been demonstrated in a multitude of diseases, including diabetes, producing significant improvements in the quality of care and in patient health outcomes (51-54).

The PDSA cycle is a pragmatic scientific method to test changes introduced in complex systems, such as clinical practice, and it is especially indicated for small-scale improvement projects. Being seemingly simple, the improvement cycle is in itself, a complex intervention composed of a series of interdependent stages and fundamental principles that guide its application.

The method consists of an iterative cycle of planning, implementation, evaluation and continuous improvement (Plan-Do-Study-Act) that introduces periodic changes aimed at achieving improvements in clinical practice. It allows testing, making mistakes, analysing and learning from them to perfect the improvement initiative (figure 9).

▼ Figure 9. PDSA

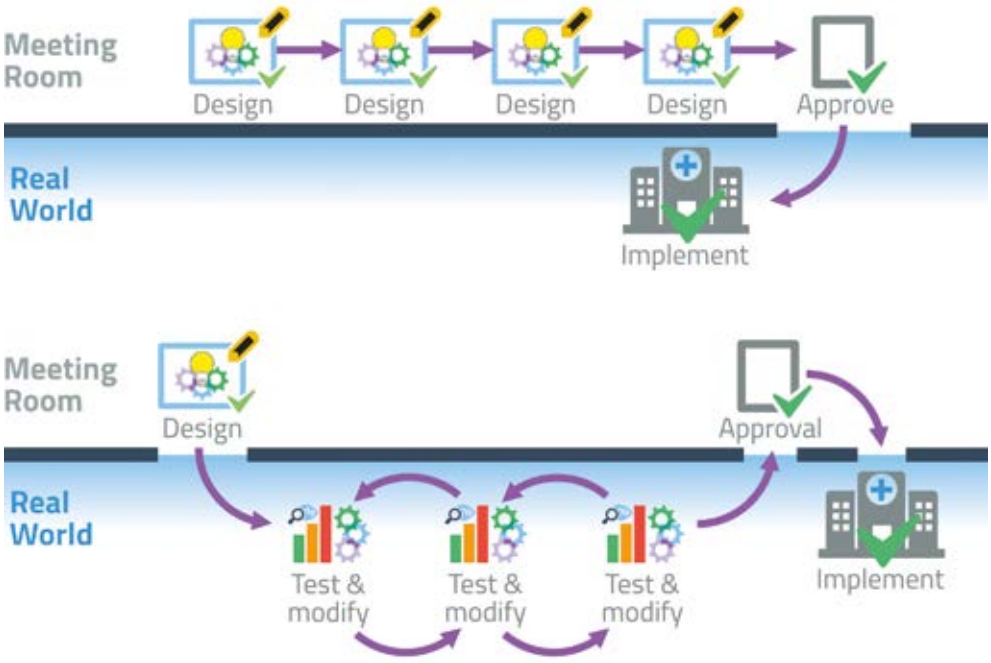
Adapted from the Institute for Healthcare Improvement.

In the healthcare sector any initiative for improvement is designed and re-designed constantly until it is approved and only then, is it implemented in the real world. However, many of these interventions fail because they have not considered the reality of the context in which they are implemented, and, although they are very well designed, in practice they do not work as expected (figure 10).

The main error in using this process is that there is no testing and learning phase prior to its implementation in the real world, making it impossible to identify the contextual barriers that can hinder implementation success.

The idea of designing a "perfect" intervention must be abandoned before moving on to implementation. Instead, we should begin to see the process of change as an iterative cycle of planning, implementation, evaluation and continuous improvement (figure 10).

▼ Figure 10. Traditional change methods vs. continuous improvement methods



Created by SI-Health.

The use of these methods ensures the adaptation of the intervention to the real world and significantly increases the chances of implementation success. On the other hand, as staff gain experience in the use of these methods and in making decisions to increase the quality of care, their autonomy and sense of belonging are also increased. This generates a greater commitment to seeking improvements in their work.

To implement these methods, it is necessary to avoid excessively rigid designs and abandon the concept of control over the change process to allow adjustments during implementation. Local knowledge is used to introduce adaptive changes during the process of implementation and generate improvements periodically, relying on the idea that organizations "learn continuously".

The methods of continuous improvement generate improvements periodically, based on the idea that organizations learn continuously

4. Integrate: Facilitate collaboration between staff

One of the elements that most influences the implementation of the new diabetes care model is the lack of collaboration between levels of care, as well as between clinicians and managers. The traditional configuration of the health system is based on separate structures. This has led to the development of an organizational culture in which each provider or stakeholder manages its area of competence without having to seek synergies. Breaking this inertia is not an easy task.

4.1 "System" perspective:

To advance in the creation of a "system", there must be an organizational structure and a governance that allows it. It is obvious that you cannot manage a "system" where there is not an organization with that system configuration. Therefore, in those Autonomous Regions in Spain where there is an integrated organization[1] and a more integrated governance of the elements of primary and hospital care that make up the system, diabetes is better managed. It is in those system organizations where reasoning this document's reasoning can best be incorporated.

On the other hand, it is equally important that payers begin to abandon the traditional funding model that acts as a barrier to integration by encouraging work in silos. They should start allocating resources in a way that encourages joint working between structures with a population approach, rewarding the results achieved throughout the care pathway and not only those obtained individually by each organization. Through this, different providers would be incentivized to work collaboratively since their funding would depend on it.

Although there are still no signs that resource allocation will change to encourage the integrated management of diabetes in Spain, there are organizational structures in many regions that have an integration mindset. It is important that those who manage these organizations use this document's framework to guarantee success in the management of diabetes.

Real integration will only be possible if a change of staff's mindset takes place. As an example, although some multidisciplinary teams and tools such as the EHR to integrate

1 *As an example, the Integrated Health Organizations in the Basque Country or the Organizational Structures of Integrated Management in Galicia.*

and coordinate diabetes care exist, the outcomes have not improved as expected since staff continue to prioritize their own services without collaborating with the rest of the team (55). This reveals that it is necessary to further encourage collaboration among healthcare staff.

In order for staff to change their behaviour, leaders must encourage a "system" culture instead of continuing to focus only on their service. T**he objective is to ensure that all staff assume responsibility for the success of the system as a whole, and not only for their individual services** (45). **This contrasts with traditional approaches that have focused on developing individual capacity, while neglecting the need to develop a collective capability and responsibility for improving patient care.**

4.2 Operationalizing a "system":

Real integration will only be possible if collaboration between clinicians is encouraged

There are some tools and practices that health organizations can put in place to help strengthen collaboration between the different health professionals involved in the management of diabetes[2] :

- Establish shared goals and objectives among structures around the concept of value, as well as incentives linked with the results of the entire care pathway. The array of indicators and final outcomes proposed by the International Consortium for Health Outcomes Measurement (ICHOM) for diabetes is good starting point.
- Encourage the creation of multidisciplinary teams for a comprehensive approach on diabetes and encourage the development of coordination meetings.
- Encourage close collaboration between staff and leaders / managers to design improvements in their approach to diabetes.
- Strengthen information systems to facilitate communication and coordination of staff involved in the management of diabetes: shared clinical history, interconsultations, etc.
- Introduce new coordination roles between levels of care.
- Encourage the multidisciplinary design of care routes, clinical guidelines and joint protocols for diabetes.
- Encourage the participation of different specialists in collaborative projects and interdisciplinary forums with common aims in diabetes management.
- Encourage and strengthen joint training of different staff groups who care for patients with diabetes in clinical sessions, training, meetings, conferences, etc.
- Encourage the incorporation of the patient's perspective in the design of the care pathway.

The development of this type of activities will allow us to forge an interdependent network of organizations and staff who work together to provide high quality care to patients with diabetes. A culture of collaboration and teamwork facilitates the implementation of improvements to achieve a more effective care delivery, which will ultimately result in greater satisfaction of staff and patients and better health outcomes (57-60). In fact, a recent study suggests that increasing teamwork by 5% leads to a 3.3% decrease in patient mortality (61).

2 *Note that some of the tools proposed are the introduction of technical changes.*

7 Examples of good international practice

Encouraging change in Jönköping County, Sweden (62, 63)

Internationally, there is recognition that Jönköping County in Sweden is one of the best examples of how a quality-oriented system culture can improve performance and outcomes.

Since its strategic focus on quality began in the 1980s, Jönköping has won the Swedish quality health award on several occasions and consistently appears as one of the best counties in Sweden in quality and efficiency indicators as well as patient satisfaction, staff absenteeism, waiting lists and budgetary indicators.

Figure 11 shows the 2004 ranking where, compared to the rest of the counties, Jönköping places top thanks to its better results in several quality indicators (efficiency, safety, equity, effectiveness and patient-centred care).

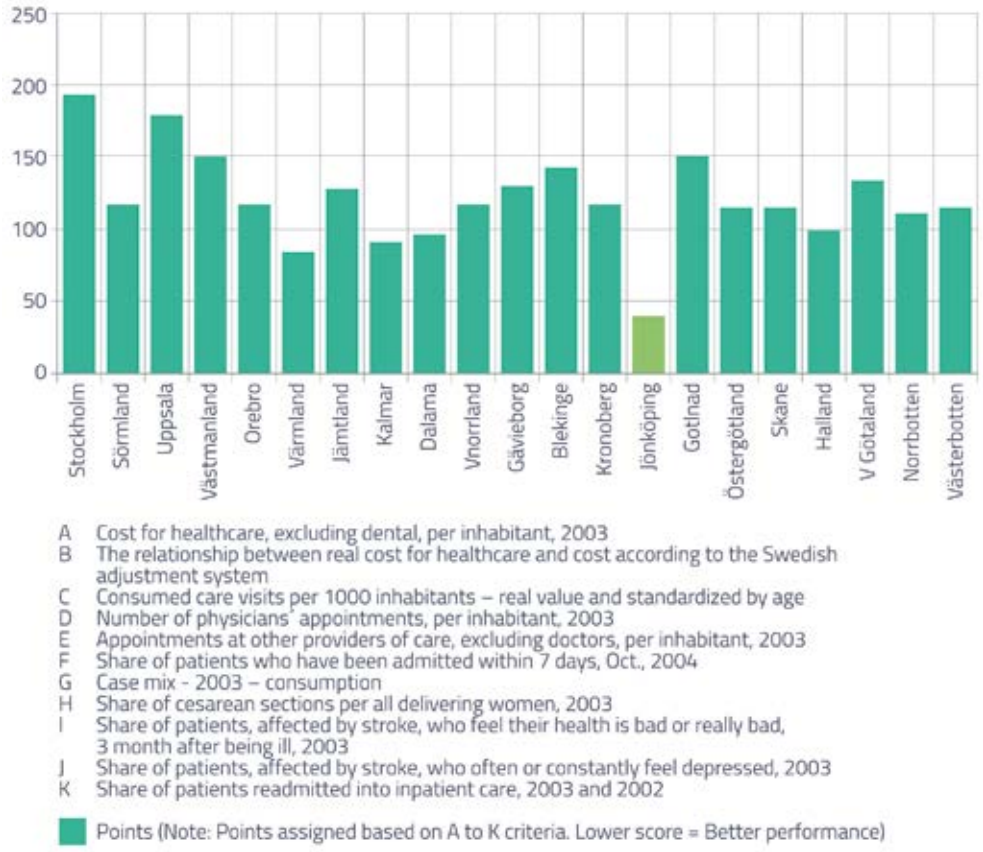
Another good example of the positive results obtained in Jönköping is the Esther project, which sought improvements in the pathway and patient flow of patients through the system. As a result of this programme, in a period of 3-5 years hospital admissions were reduced by 20%, the average hospital stay due to heart failure was reduced by 30% and significant reductions were observed in waiting times for appointments with specialists such as neurologists or gastroenterologists.

Jönköping has become an international example and its centre for learning, quality and innovation, called Qulturum, is studied by managers and researchers from around the world.

This centre has played a key role in obtaining these results and has become the nerve centre from where a culture of collective leadership is encouraged and where all staff are responsible for the improvement of their work. For more than 20 years, employees of Jönköping County have two jobs: "They have their job, then they have the job of improving their job."

To encourage this cultural change, Qulturum does not provide guidelines, but rather trains and qualifies staff in change management. It encourages the use of quality improvement methods and tools such as the PDSA with the objective that all staff can reflect on their work and suggest improvements. In fact, each staff member is encouraged to put forward six improvement ideas per year. There are even incentives linked with achieving quality objectives.

▼ Figure 11. Healthcare benchmarking of the Swedish counties, 2004. (lower score indicates better outcomes)



Source: Baker et al, 2008.

Staff engagement is strongly encouraged through multiple initiatives that request their participation and collaboration in the search for improvements, such as in the so-called "Big Groups" or "Development Dialogues"

Through this, a culture of continuous improvement has been created in an organization where all staff have great freedom, motivation, capacity and influence to propose improvements and create "value" in the system. It is, without a doubt, one of the best international examples on how to encourage the collective leadership needed in a system and ensure success when introducing improvement.

Encouraging change at Wrightington, Wigan and Leigh NHS Foundation Trust, United Kingdom (45)

The drive to develop a culture of collective leadership that fostered greater staff engagement in Wrightington, Wigan and Leigh NHS Foundation Trust began 15 years ago. Through a joint initiative between managers and healthcare staff that sought to improve mutual understanding and reduce the hierarchical differences between both groups, leaders committed to listening to frontline staff in the search for improvements and gave them regular opportunities to speak directly with the management team. Subsequently, this engagement was greatly strengthened by the implementation of the "*Listening into Action*" program, in which managers organized large-scale events to ask staff three questions: what works well? What should be improved? And what are the barriers to improvement?

The introduction of these two simple initiatives into the culture of the organization allowed great changes, making it a clear example of how staff can lead change in an organization.

After the success of the "*Listening into Action*" program they deployed this same initiative to the frontline with a new name: "*Pioneer Teams*". It was the local teams themselves who organized their "listening" events and identified changes to improve their services. In this new program, teams meet daily for 15 minutes to determine priorities, report on the latest developments, make adjustments and solve problems, as well as to recognize and celebrate success. In addition, teams have the support of an external consultancy that offers training in management tools, the use of metrics and in problem solving.

The leaders of these organizations not only consult their staff, but also listen to them, support them and train them to lead the implementation of improvements. It is possible to develop a culture aligned with change and continuous improvement that goes far beyond simply consulting clinical staff. The key components of success in this organization has been the following:

- The commitment to a style of collective leadership that encourages staff engagement.
- Close collaboration between staff and managers.
- The constant communication and dissemination of information in the organization about the improvements included as a result of increased staff engagement.
- Their focus on "fast acting" after identifying possible improvements in a service.
- The constant feedback offered to staff.

Thanks to the implementation of this new style of leadership, these organizations have achieved very good results at different levels. From improvements in the processes and quality of care received by patients, to substantial improvements in staff satisfaction and levels of absenteeism. Obviously, this required a change in mindset among managers to start encouraging collective leadership, but the results obtained after its implementation show that the effort was worthwhile.

Encouraging change in Veterans Health Administration, United States (64)

In the second half of the 1990s, the United States Veterans Health Administration (VA) underwent, under a new style of leadership, a radical transformation that allowed it to evolve from a fragmented hospital centred model towards a new system model in the form of integrated regional networks.

In order to carry out this profound transformation, the decentralization of decision-making and accountability was encouraged by introducing a performance management approach that established measurable objectives to improve the quality and outcomes of services. Thus, a culture of measurement was encouraged at all levels of the organization and the engagement and performance of the teams was pushed using tools such as benchmarking. In addition, financial and non-financial incentives were introduced to support the search for quality improvements.

All these changes were put forward with the purpose of involving staff and sharing leadership throughout the organization, replacing the previous top-down micromanagement style and delegating the responsibility of implementing improvements to managers and staff at the local level.

In addition, they invested in staff training to provide them with the necessary skills to achieve improvements, and they also upgraded their information systems which provided them with the necessary data to monitor and improve care. This achieved better standardisation of care and a reduced clinical variability that prevailed at the VA until then.

The VA achieved a reduction of more than 50% in its use of hospital beds and reinvested those savings in primary and community care, managing to transform an inefficient and ineffective care system into one widely admired for its ability to provide high quality care at an affordable cost.

This example highlights the importance of establishing a clear direction for the organization as a whole, while giving local teams the responsibility to seek and implement improvements in care. It highlights the importance of clinical leadership and the value of investing in staff to provide them with the necessary skills to achieve change.

Lessons learned from these good practice cases

The organizations presented in this chapter, along with others such as Intermountain Healthcare, the Virginia Mason Medical Centre, the Canterbury District Health Board of New Zealand or Salford Royal NHS Foundation Trust, are leaders in the implementation of improvements because they have achieved a strong engagement and involvement of staff with their change plans. Some of the learning points we can draw from these examples are (64):

- The transformation of organizations does not depend so much on great political gestures as much as it does on the involvement of doctors, nurses and the rest of the staff.
- Improvement in organizations must be based on engagement rather than compliance, supported by investment in staff to enable them to achieve continuous quality improvement over time.

- Leadership in organizations must be collective and shared, with qualified clinical leaders working together with experienced managers.
- Organizations must prioritize the development of leadership and the training of staff in continuous improvement methods.

8 The situation in Spain

Spain's situation on these 4 facilitators of change (Involve, Include, Instruct, Integrate) is presented below based on the 5 health areas selected to participate in the project. Interviews were conducted with two managers in each of the participating health areas in order to analyse their situation within their own context for change. The main conclusions of the interviews are presented below:

1. Involve: Ensure the engagement of all stakeholders with the diabetes strategy

Many of the interviewed health areas did not have a specific diabetes plan. However, improvements in the management of diabetes are being introduced in all areas, mainly framed within chronic disease strategies or health plans. As we will see below, there is still room for improvement to achieve full involvement of staff with the defined plans or strategies:

- Existing plans or strategies have been designed with multidisciplinary representation, and in general, the interventions included are based on evidence. However, in some cases, the proportion of managers was high with a much smaller representation of clinicians and patients.
- The integration of the patient's voice in the design of diabetes plans or strategies is still in its infancy, and although there some cases, it is still not common practice in Spain.
- Some health areas have shown difficulties in the implementation of improvements due to the lack of healthcare professionals in the design. As an example, the implementation of a monitoring system for a digital checklist to monitor compliance of clinical actions, had serious implementation problems due to this. The complexity and unfriendliness of the tool, which consumed a lot of time for clinicians to load information, discouraged clinicians to integrate this practice into their daily routine.
- Another common cause that hinders the implementation is the lack of resources (human, financial, etc.) to carry out all the actions proposed in the plan. In particular, regional and national strategies do not usually contemplate in their design the additional resources that would be necessary for local organizations to implement the proposed actions.
- On the other hand, unlike what happens with national or regional strategies, when specific interventions are designed at the local level, the resources necessary for their implementation are usually provided in advance. This was the case in one of the interviewed regions where the design of the integrated diabetes care pathway was carried out taking into account the resources available.

- Most plans or strategies include a variety of indicators to evaluate and monitor progress. However, these indicators should be a thing of the past since they favour process over outcome.
- Indicators are reviewed once a year and economic incentives associated with their compliance are provided. However, these incentives are not considered an important source of motivation because they are small incentives and are often centred on seeking efficiencies rather than improving patient care.
- On the other hand, there are no shared incentives among different providers in a specific area, so collaboration between structures to integrate diabetes care is not encouraged.
- There is a gap in the evaluation of the management interventions and organizational innovations. Teams are not seeking to provide early wins that would help to involve other staff or areas in the intervention.
- There is agreement that there is room for improvement when communicating and disseminating strategies. In many cases, communication is limited to sending the strategy by email to staff.
- This means that the strategy does not reach staff correctly and this makes it difficult from the beginning.
- In general, the possible barriers that may arise are not analysed in advance. It is possible that this lack of foresight is the result of the lack of resistance by stakeholders when proposing changes.
- Both patient groups and unions have shown their support for this type of strategies, especially when the design phase involves them.
- Nonetheless, all the interviewed areas agree on the importance of communicating the driving forces for change to achieve the adhesion of all the stakeholders. The design of the narrative and its dissemination are considered very valuable actions.

▼ Figure 12. Areas for improvement and diagnosis of the Spanish situation

INVOLVE: Ensure the engagement of all stakeholders with the diabetes strategy:
Little integration and participation of the patient voice.
Little foresight of the resources needed for implementation.
Mainly use classic indicators that do not promote the change of model.
Lack of dissemination of the strategy.

2. Include: Encourage collective leadership

As we will see below, the traditional top-down style of leadership continues to be predominant in Spain. Although we have not found an area that strongly encourages bottom-up, there are more and more examples of initiatives encouraged from the bottom:

- In general, all health areas have a group, unit or committee that leads the strategy and actions related to diabetes. Although these units are mainly composed of a multidisciplinary teams with clinical and managerial representation, there are also cases in which these units are composed solely of managers.
- These units hold regular meetings (3 or 4 a year) to evaluate progress and plan improvements or new activities.
- The dedication of the members of these units to lead the strategies also varies. While in some cases staff combine this activity with other functions, in other areas they are released so that they devote 100% of their time to leading the strategy.
- The traditional top-down leadership model is still predominant, and in general, healthcare staff are not involved in decision-making.
- However, there are concrete examples where the staff have been consulted before starting an improvement, as in the case of the "Pathway Meetings" (Jornadas de ruteros), where clinical staff were asked for their opinion on the integrated diabetes care pathway.
- In general, there is no collective leadership culture where all staff are responsible for implementing the changes to improve the model of diabetes care. All the health areas interviewed reported great variability in the degree of involvement of staff with projects such stratification systems or patient tracking systems. Many staff are reluctant to use these systems for various reasons: they do not see its utility, high pressure and lack of time, little user-friendliness or simplicity of the tool, etc.
- Some health areas have stated that the clinical independence of healthcare professionals acts as a barrier to their involvement, since it leaves the implementation of improvements in the hands of each healthcare professional. The Spanish public healthcare model encourages individualism and clinical freedom by not penalizing healthcare professionals if they do not comply with the proposed changes in clinical practice. This greatly hinders the implementation of some innovations.
- Nonetheless, the health areas reported examples of actions that have helped to encourage the involvement of staff:
  - Benchmarking among staff: the comparison between staff helps to improve their involvement and professional performance. As an example, a training video was made to teach staff to identify patients with poorly controlled diabetes within the EHR. As a result of the video, the visibility of clinical outcomes to peers, and the inevitable comparison, prompted staff involvement and increased the percentage of controlled diabetes from 49% to 55%.

- Showcasing early wins: sharing good results in an intervention can encourage other areas or staff to also implement the intervention. For example, the good outcomes obtained in an intervention aimed at detecting hidden cases of diabetes, taking advantage of blood tests done for other reasons, encouraged other health areas to incorporate the same initiative.

- In general, the conditions for staff to lead transformative initiatives from below are not ideal. There is still no culture that encourages bottom-up in its system.
- However, in some health areas, innovation is being encouraged from the ground up, granting resources for the development of new ideas, through incentives and prizes. For example, in one of the areas interviewed, a platform has been created to upload innovative projects that, once approved, moves into implementation, study and analysis, to subsequently publish the results in journals or make presentations at conferences and events.
- Some of the health areas interviewed mentioned several examples of diabetes initiatives encouraged from the bottom. For example, the launching of "healthy gatherings with patients" or the creation of a "breastfeeding support and promotion group".
- Sometimes, these initiatives come from a limited area and are not scaled up throughout the AR.
- In general, organizations do not free staff time to work on diabetic innovations. The pressure and lack of time of staff endure are two barriers consistently repeated in all the studied areas.

▼ Figure 13. Areas for improvement and diagnosis of the Spanish situation

INCLUDE: Encourage collective leadership
Mainly traditional top-down leadership.
Great variability in the involvement and commitment of staff with change.
The conditions to encourage "bottom-up" innovation are not optimal.

3. Instruct: Methodically train staff in change management

The training and qualification of staff in management skills, as well as in techniques of continuous improvement and change management is probably the element of the "framework of the 4i" least worked in the health areas interviewed:

- In general, in Spain, staff are not trained in change management or in the use of quality methodologies and tools such as the PDSA, consequently, their use is not encouraged either.
- Interventions continue to be designed and re-designed until they obtain approval, leaving the subsequent implementation in the hands of staff without having had a phase of testing and prior learning. Usually, many of these initiatives end up failing because they have not taken into account the context or the barriers that may hinder implementation.

▼ Figure 14. Areas for improvement and diagnosis of the Spanish situation

INSTRUCT: Methodically train staff in change management
Professionals do not receive training in change management, nor do they encourage the use of continuous improvement methods to search for quality improvements.
Innovations are designed over and over again until approval is granted, leaving the implementation in the hands of professionals.

4. Integrate: Facilitate collaboration between staff

Although much progress is being made to encourage collaboration between staff, there is still room for improvement:

- While there are occasional shared objectives between levels of care, the funding and incentive models continues to encourage work in silos. The different healthcare stakeholders aren't working collaboratively since the indicators used are themselves not centred on collective performance.
- Although there are varying degrees of progress and development, all the health areas interviewed are trying to facilitate communication and collaboration between the different staff involved in the management of diabetes. Some of the actions that are being used to encourage this collaboration are:
  - Creation of multidisciplinary diabetes teams.
  - Multidisciplinary team meetings to evaluate progress and plan improvements or new activities.

- Development of communication tools such as shared EHR or virtual consultations. In relation to the EHR, although all the health areas interviewed are advancing in their development, none of them have a single and shared EHR.
- Design of an integrated diabetes care route (only in one interviewed health area).
- Refresher courses in diabetes on various topics (food, drugs, physical exercise, etc.) aimed at all specialists involved in the management of diabetes.
- Promotion of collaborative projects through multidisciplinary working groups for the design of specific initiatives such as the creation of the TPI (Therapeutic Positioning Index) or the standardisation in the prescription of diabetic strips.

▼ Figure 15. Areas for improvement and diagnosis of the Spanish situation

INTEGRATE: Facilitate collaboration between staff:
Geographic variability of the availability of communication and coordination tools among staff.
Although progress has been made in fostering collaboration among professionals, there is still no true "system" culture.

Overall conclusion of the situation in Spain:

Spain has a good foundation to move towards the new model of integrated diabetes care. However, despite "The Diabetes Strategy of the National Health System" published in 2012 by the *Ministry of Health, Social Services and Equality* showing a road map to improve diabetes care, our analysis shows that the Spanish context for implementation is not yet optimal (figure 16).

The efforts of the Regions continue to focus on technical changes that, in many cases, do not achieve the expected outcomes due to issues with implementation. Meanwhile, adaptive changes are not being worked with the same intensity, which makes it very difficult to introduce improvements that would facilitate reaching a fully integrated system capable of responding successfully to diabetes.

Today, there is great variability in the degree of commitment and involvement of staff with change. The lack of a collective leadership style and the lack of favourable conditions for staff to lead transformative initiatives from below are two of the main reasons that prevent the development of a culture in the organization that is fully involved and aligned with change.

It is necessary that Spain begins to complement the technical changes with other types of capabilities that allow a true transformation in its approach to diabetes.

▼ Figure 16. Recommendations put forward by the group of experts

INVOLVE: Ensure the engagement of all stakeholders with the diabetes strategy
Little integration and participation of the patient voice.
Little foresight of the resources needed for implementation.
Mainly use classic indicators that do not promote the change of model.
Lack of dissemination of the strategy.

INTEGRATE: Facilitate collaboration between staff
Geographic variability of the availability of communication and coordination tools among staff.
Although progress has been made in fostering collaboration among professionals, there is still no true "system" culture.

INCLUDE: Encourage collective leadership
Mainly traditional top-down leadership.
Great variability in the involvement and commitment of staff with change.
The conditions to encourage "bottom-up" innovation are not optimal.

INSTRUCT: Methodically train staff in change management:
Professionals do not receive training in change management, nor do they encourage the use of continuous improvement methods to search for quality improvements.
Innovations are designed over and over again until approval is granted, leaving the implementation in the hands of professionals.

9 Diabetes: Implementation Guide

Below is a simple guide, in a check-list format, which includes some of the actions or practical tips that will help organizations develop an organizational culture of change in diabetes management.

The guide is for all stakeholders that have responsibility in the design and implementation of the new organizational model and management of diabetes in their health area, and especially to all those leaders interested in accelerating this transformation process.

This guide is structured based on the 4 elements presented in this document and aims to facilitate the recording of the activities carried out when creating a receptive context for change.

1. INVOLVE: Ensure the engagement of all stakeholders with the diabetes strategy:

Actions or practical tips:

1.	Create a multidisciplinary group with representation of all staff groups involved in diabetes care, as well as patients, when designing the strategy.	
2.	Carry out an analysis of the problem, both on demand (epidemiology) and on the current health-care offer (outcomes in health, efficiency, patient satisfaction, etc.) and propose solutions based on the evidence.	
3.	Capture the patient voice about their care experience and assess the possibility of using co-design methodologies to redefine care processes or services.	
4.	Estimate the resources needed to implement the diabetes plan.	
5.	Ensure that the objectives of the diabetes plan are realistic and consistent with the resources and capacity available in the organization.	
6.	Include financial and non-financial incentives that encourage reaching objectives.	
7.	Incorporate a method of evaluation and monitoring of the plan to know its impact and make the necessary adjustments.	
8.	Value the possibility of implementing initiatives that can generate "early wins" that help to involve staff and maintain interest in change.	
9.	Disseminate the diabetes strategy, build a robust narrative that justifies the need to drive change and draw up a communication plan and dissemination strategy to obtain validation and institutional support from all stakeholders (unions, patient groups, royal colleges, etc.).	
10.	Assess the possibility of having diabetes opinion leaders to disseminate the strategy.	

2. INCLUDE: Encourage collective leadership

Actions or practical tips:

1.	Train managers and clinical leaders on the collective leadership style.	
2.	Ensure that leaders consistently transmit the narrative on the need for change to involve staff in the implementation of the diabetes plan.	
3.	Consult and involve staff in decision-making and in the search for organizational innovations in diabetes, using different means such as team meetings, innovation days, surveys, etc.	
4.	Allow greater autonomy and delegate decision-making to staff so that they search for innovations in diabetes "from below".	
5.	Ensure that there is a clear vision that provides direction so as to encourage staff in the search for innovations.	
6.	Establish shared objectives that encourage collaboration in the search for innovations in diabetes.	
7.	Clarify the roles and functions of each team member and establish work agreements or standards that specify how they should work to achieve their objectives.	
8.	Consider freeing staff time to facilitate the search for innovations in diabetes.	
9.	Encourage the search for innovations in diabetes and celebrate successes through prizes, etc.	
10.	Evaluate staff performance in a structured manner so that staff receive feedback and can improve their performance.	
11.	Consider using "benchmarking" among organizations, teams and / or staff to increase their motivation.	

3. INSTRUCT: Methodically train staff in change management

Actions or practical tips:

1.	Train staff in continuous improvement methods as well as change management (PDSA, Lean, Six Sigma, etc.).	
2.	Encourage the use of continuous improvement methods to incorporate improvements.	

4. INTEGRATE: Facilitate collaboration between staff:

Actions or practical tips:

1.	Encourage a system culture by establishing shared goals and objectives centred on value.	
2.	Introduce incentives linked with the fulfilment of these shared objectives.	
3.	Encourage the creation of multidisciplinary teams for a comprehensive approach to diabetes.	
4.	Encourage the development of multidisciplinary coordination meetings.	
5.	Encourage collaboration between healthcare staff and managers when designing improvements in diabetes management.	
6.	Introduce improvements in information systems to facilitate the coordination and communication of staff who care for patients with diabetes: shared HCE, inter consultations, etc.	
7.	Incorporate new roles that facilitate coordination between levels of care: liaison nurses, case managers, etc.	
8.	Encourage the development of collaborative projects such as the multidisciplinary design of care routes, clinical guidelines or joint protocols for diabetes.	
9.	Encourage the development of training programs with the involvement of managers and staff: training in new therapies, research, organizational innovations, etc.	
10.	Encourage the joint participation of different staff groups in multidisciplinary events such as conferences, forums, congresses, etc.	

10 Conclusion

This document is intended as a guide for leaders interested in accelerating the implementation of changes that help integrate diabetes care.

Although in Spain there are numerous examples of improvements that have achieved remarkable results in their approach to diabetes, there are many other innovations or changes that take years to be adopted or do not become common practice due to the existence of implementation barriers.

These problems arise with innovations that involve an adaptive change, since they require a change in the behaviour and culture of the organization.

Fortunately, there are tools and methods that can help organizations create a change culture that is aligned with the implementation of all these improvements.

The framework presented in this document focuses on unleashing the power of people and their motivations to increase the likelihood that improvement plans will succeed.

Based on the research on change management and the learning from Deming (53) and Pettigrew (39), among others, this framework presents 4 interrelated elements that will help organizations create a culture that allows the successful implementation of the changes needed to integrate diabetes care.

While we wait for the payers to introduce new funding and resource allocation models, Spain can prepare to advance faster with a new integrated healthcare model that is able to respond effectively and efficiently to diabetes.

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