

cities
changing
diabetes



COPENHAGEN

Tingbjerg Changing Diabetes

Mobilising communities for social and health actions

Tingbjerg Changing Diabetes is a long-term community intervention initiative to promote health and prevent diabetes in the neighbourhood of Tingbjerg in Copenhagen, Denmark. It is a place-based approach that includes coordinated interventions driven by a variety of stakeholders across everyday settings.



Spotlight on Tingbjerg: the local community and its residents

Tingbjerg Changing Diabetes (TCD) operates in the public housing area of Tingbjerg in Copenhagen. The neighbourhood has a population of approximately 7,000 residents living in 2,500 apartments and is one of the largest public housing areas in Denmark. Tingbjerg is characterised by high ethnic diversity, with approximately 80 nationalities contributing to a wealth of cultures, languages and traditions. In 2018, 81% of its residents were immigrants or descendants of immigrants, and 90% of these originated from non-western countries, compared with 25% and 61% respectively for the city of Copenhagen.*

Tingbjerg is considered to be a socially vulnerable neighbourhood due to low levels of employment, education and income and high levels of crime. Numbers from Statistics Denmark show that the 2018 prevalence of type 2 diabetes among adults in Tingbjerg was 9.2%, compared with 5.7% in the surrounding area of Brønshøj.* Based on this, Tingbjerg is a prime target site for diabetes prevention interventions.

Moving beyond the epidemiological numbers in Tingbjerg, it was decided to obtain a better understanding of the community's contextual factors, including which local resources and assets could be mobilised to support change.

Mobilising local partners

A contextual analysis was conducted to better understand the local factors and vulnerabilities concerning type 2

diabetes in Tingbjerg, as well as the available resources and assets in the local community.

The analysis showed that health-promoting activities were not a top priority for vulnerable groups, which tended to experience social isolation and loneliness and had more pressing everyday concerns, such as poverty, unemployment and illness. These groups lacked trust in formal institutions and were, therefore, not likely to participate in the social and health-promoting activities offered by the municipality. As such, the municipality was struggling to reach these vulnerable groups.

Untapped community resources

On the positive side, the analysis showed that the neighbourhood had plenty of informal and semi-formal social networks and civil society organisations. These created a strong sense of belonging and neighbourliness and worked well for relatively resourceful residents. Furthermore, a large number of associations and leisure clubs appeared to be willing to provide social support and cooperation. Within these networks and associations, there were substantial untapped resources that could be mobilised for social and health action.

Based on this contextual understanding, relevant social settings and social networks were mobilised to help improve social and healthy living in Tingbjerg. An overall goal was formulated: to demonstrate positive and measurable changes in the health and well-being of Tingbjerg residents. The approach was to strengthen the community's social capital to eventually improve the health and well-being of its citizens.

The local community analysis tool

A local community analysis (LOCAL) tool was applied to gather context-specific knowledge about the local community. The participatory tool covers four themes, and is used to understand a local community, focusing on its resources, challenges and opportunities.

Physical and organisational structures

Mapping existing institutions, private business and leisure associations as well as social networks, informal associations and local group forums

Populations characteristics

Describing socioeconomic and demographic factors of the local community (eg gender, age, ethnicity, education, employment and income levels)

Professional stakeholder perspectives

Interviewing (local) professionals about community interests, visions, goals, needs, demands, ideas, plans, commitments, resources, barriers and challenges

Citizen perspectives

Interviewing local residents about personal interests, visions, goals, needs, demands, ideas, norms, traditions, resources, barriers and challenges

* Source: BL data ordered by Steno provided by Statistics Denmark. Steno Diabetes Center. (2018). Statistiske Nøgletal på Boligområder (BL) [Dataset]. Statistics Denmark.

The supersetting approach

Complex problems require complex and multifaceted solutions, which is why Tingbjerg Changing Diabetes utilises the supersetting approach. This approach involves the coordinated engagement of multiple stakeholders in various settings to mobilise local resources and strengthen social networks for collective community action. It is a useful conceptual framework for planning and organising complex interventions in a local community. The supersetting approach emphasises five core principles:

- Integration:** to ensure that activities are implemented across and in cooperation with different settings and actors
- Participation:** to ensure that people are motivated to take ownership of the process of developing and implementing activities
- Empowerment:** to ensure that people acquire skills and competences to express and act on their visions and aspirations
- Context:** to ensure that the everyday challenges of citizens and professionals are respected and considered when developing activities
- Knowledge:** to ensure that scientific knowledge is produced from action and used to inform action.

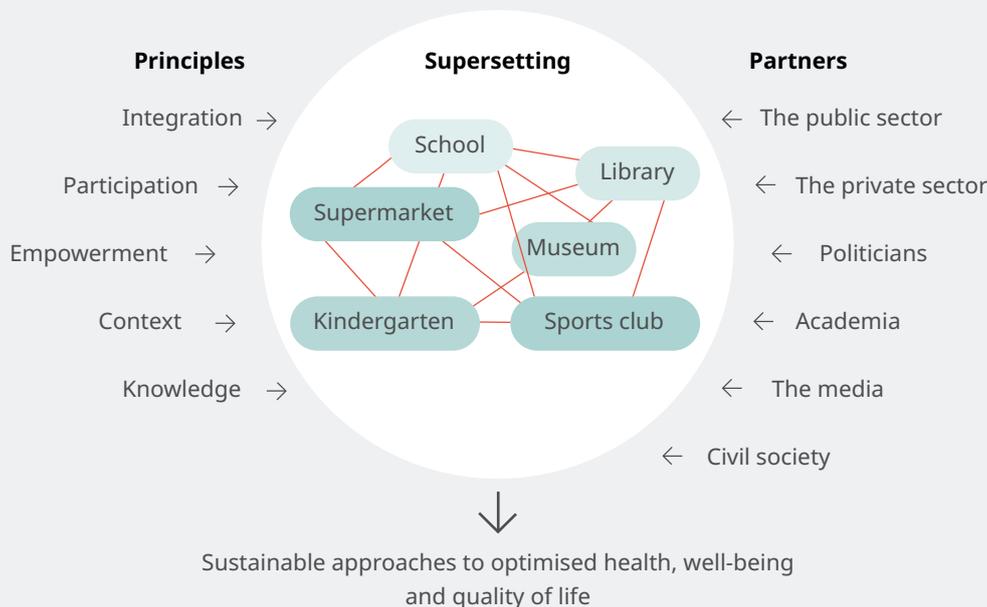
The supersetting approach and its five principles act as the overarching conceptual framework for guiding the development and implementation of all the intervention components of Tingbjerg Changing Diabetes. Accordingly, the intervention components are complex, involve several population groups and include a variety of settings used by people in the community in everyday life. The specific characteristics of the intervention depend on local priorities for action drawn from local settings, including formal institutions, organisations and associations, as well as informal social networks of citizens such as children, mothers and senior citizens.

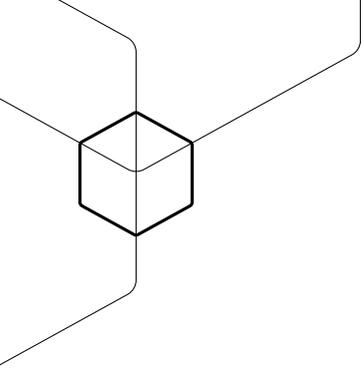
From setting to supersetting

The **setting approach** is an intervention strategy that involves multiple settings, and is based on the strategic use of the setting's structural, physical and social resources to achieve defined health-promoting goals.

The **supersetting approach** is based on the notion that people are deeply embedded in context, and that behaviour is impacted by various settings in everyday life (eg schools, churches, sport clubs and mothers' groups). The supersetting approach is a refinement of the setting approach. It works by coordinating, in time and space, activities undertaken in multiple settings while adhering to a set of principles to provide value and direction.

The supersetting approach





Starting where the energy is

The programme was initiated in 2015 by Steno Diabetes Center Copenhagen and the social housing associations FSB, SAB and KAB. The social housing associations jointly run a comprehensive social housing development programme, which includes establishing relationships of trust with community residents and doing a lot of social work on the ground. Steno's approach was to ask how it could contribute to their social development work in Tingbjerg and make skills and competences available to provide meaningful support. In this way, Steno gradually became an asset to the community. In order to provide better support and services, the social housing associations wanted to better understand the social contexts and dynamics of the community, and Steno was able to help by providing support to organise a research-based household survey addressing these issues. It was agreed to involve young residents in implementing the survey and equip them with the relevant skills by training volunteers in research methodology. A fruitful bilateral cooperation sprang up between Steno and the social housing associations. Following the survey, participatory workshops were carried out with residents of Tingbjerg, and it became apparent that the community was extremely interested in food issues. This led to the third founding partner – Copenhagen Hospitality College (a Danish hotel and restaurant service training college) – being brought on board.

An organisation was set up

A coordination group was set up to plan, coordinate and drive the Tingbjerg Changing Diabetes initiative. The coordination group consists of professional practitioner partners who provide administrative, logistical and technical support to community-based stakeholders involved in the process of defining, planning and implementing activities and projects in their neighbourhood. The coordination group closely collaborates with a research group of professional research partners to exchange ideas, provide assistance, coordinate actions and optimise data collection and management processes. The work of the coordination group is directed by a steering committee made up of decision-makers from key partner institutions. The number of people represented in each of these groups and committees varies over time according to the ever-changing dynamics of the partnership.



Tingbjerg Changing Diabetes Partners

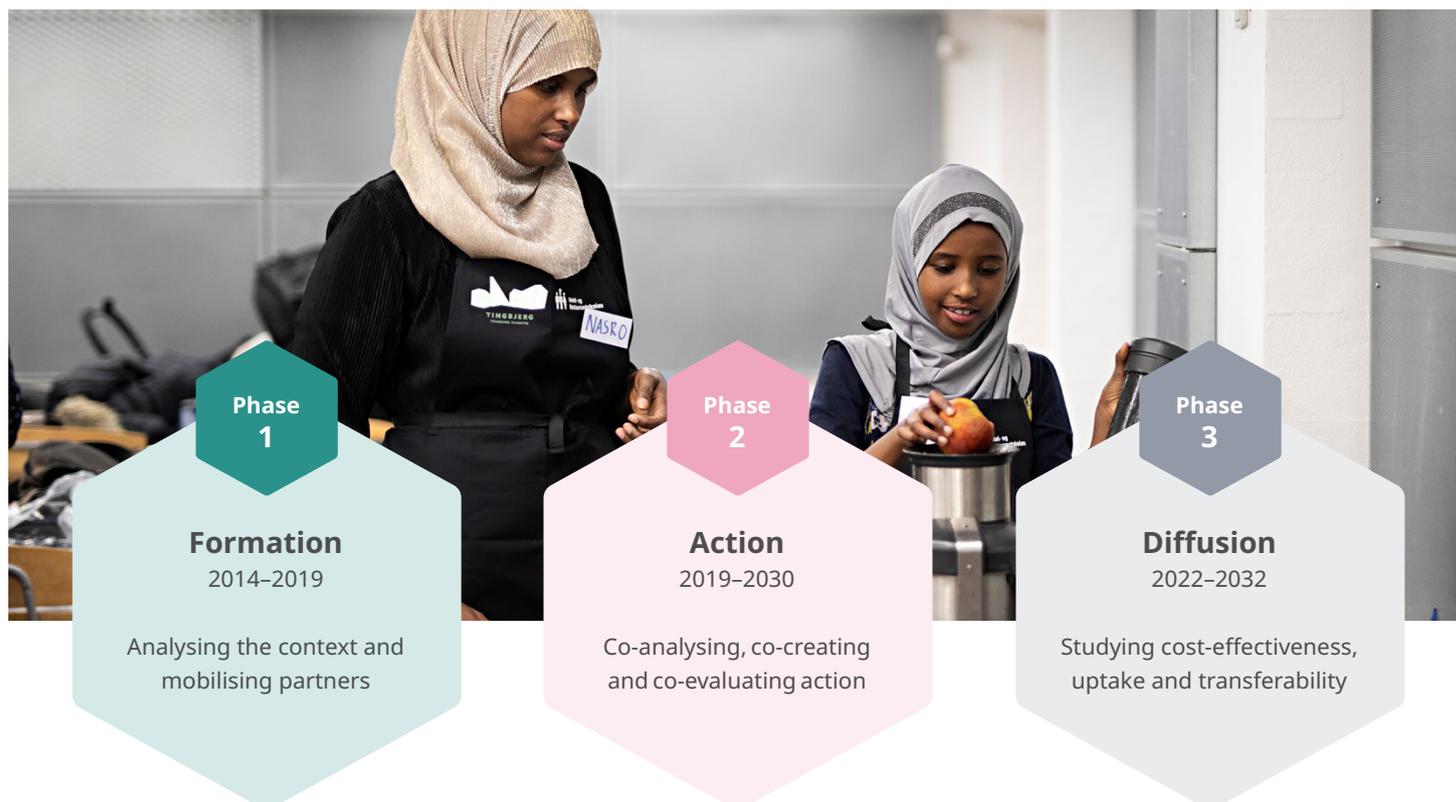
By the end of 2020, the partners included Steno Diabetes Center Copenhagen, the social housing associations FSB, KAB and SAB, Copenhagen Hospitality College, five departments of Copenhagen Municipality (culture, daycare, employment, health and social services), the large organic production farm Svanholm Gods, Brønshøj-Husum District Political Committee, the Danish Society for Nature Conservation, the self-governing food institution Madkulturen, Gerlev Centre for Play and Movement, the University of Aalborg, the University of Copenhagen and the University of Southern Denmark.

The coordination group drives the mobilisation of stakeholders from the community and municipality. Concept and strategy development workshops with project partners allow the organisational structure of the project to be defined, reviewed and revised, and the intervention frameworks to take form.

Tingbjerg's residents and professional stakeholders have been involved from the outset in equitably co-creating and co-implementing actions. This has prompted the building and strengthening of social networks in the community and the establishment of an intervention programme with the broadest possible reach and appeal.

Programme design and components

The Tingbjerg Changing Diabetes initiative is designed as a long-term, complex intervention implemented in three interconnected phases: formation, action and diffusion.



PHASE 1: FORMATION

The formation phase: understanding the context and forming partnerships

The formation phase, which was implemented from 2014 to 2019, created a solid knowledge foundation on which interventions could be developed. During this phase, contextual analyses were conducted.

Partnerships were established with numerous stakeholders working in Tingbjerg – including partnerships with public, private and civic organisations working in Tingbjerg within health promotion, social development, housing, education, employment, environment, daycare, culture, leisure, agriculture, food and physical activity.

Understanding the community's needs

During the period 2014–2019, significant resources were invested to create an understanding of the community landscape. This deep dive involved mapping the physical infrastructure, describing organisations and social networks, analysing the socioeconomy of the community, and documenting the health and behavioural determinants and risk factors for diabetes and other chronic diseases.

Crucially, the initiative explored, established and further developed collaborative arrangements and partnerships with stakeholders working in Tingbjerg. This provided an evidence- and knowledge-based foundation for engaging with professional practitioners and residents of the local community.

Substantial resources were invested in establishing this knowledge-based foundation for engaging with professional practitioners and local residents. Finally, a physical setting with combined indoor and outdoor facilities was established in the heart of Tingbjerg. Although the preparatory work has been completed and a proper foundation for community engagement has been established, the documentation of contextual factors continues, because of the ever-changing characteristics of populations, organisations and infrastructures.

PHASE 2: ACTION

Co-developing specific interventions

The action phase, which is currently being executed, is expected to run from 2019 to 2030. This phase builds on the knowledge and relationships established during the formation phase and covers the iterative processes of developing, implementing, evaluating and improving interventions in Tingbjerg. Some of these are standalone

events and social events, whereas others are long-term projects requiring intensive planning and mobilisation of resources. They follow a six-step process of implementation that involves academic partners, professional practitioners and residents of Tingbjerg.

The six-step implementation process



Neighbourhood nucleus

A physical setting with combined indoor and outdoor facilities was established in the heart of the neighbourhood. The Tingbjerg Community Hub functions as the focal point for co-creating activities and social events together with local residents.



The six-step implementation process for intervention projects:

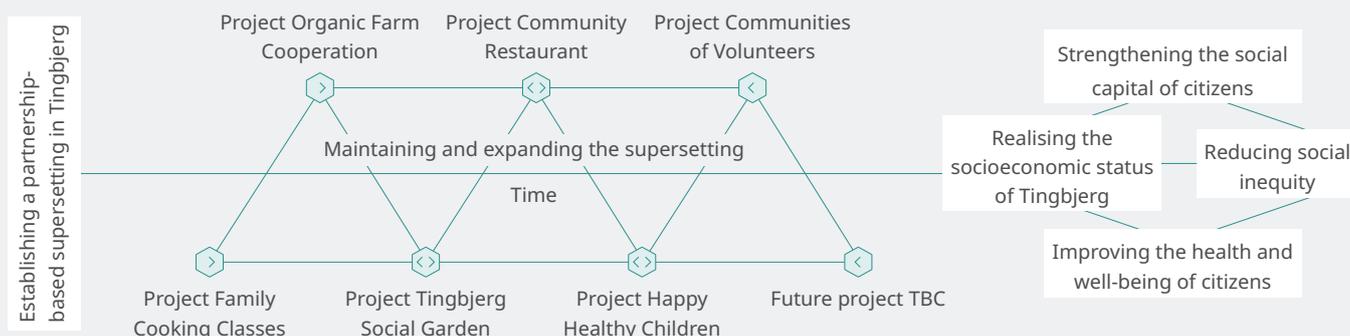
- 1. Jointly analysing the problem and the local context.** This step involves citizens and professional practitioners in structured processes of gathering context-specific knowledge about the local community, including community-defined priorities, aspirations and challenges for social and healthy living.
- 2. Establishing the partnership and working relationships.** This step identifies and mobilises key partners to engage in a formalised partnership relating to the initiative, including discussions and negotiations about its terms of engagement and its goals, values, concepts and principles.
- 3. Jointly developing and planning interventions.** This step involves citizens and professional practitioners in structured processes of developing community-based interventions and planning their coordination and implementation.
- 4. Jointly implementing interventions.** This step involves citizens and professional practitioners in structured processes of organising and implementing interventions in accordance with the implementation plan. It includes mobilising the resources found in the local community, such as manpower, consumables, materials, equipment and physical space.
- 5. Jointly monitoring and evaluating interventions.** This step involves citizens and professional practitioners in structured processes of evaluating

interventions and their impacts, based on interdisciplinary scientific methodology. It includes training stakeholders in research methodology, such as survey design and data management. It also includes close supervision of trained stakeholders conducting fieldwork.

- 6. Jointly adjusting, anchoring or scaling up interventions.** This step involves citizens and professional practitioners in structured processes of adjusting and anchoring interventions based on previous evaluations and assessments. It includes facilitated meetings between involved stakeholders at which suggestions, ideas and arguments for change and sustainability are presented and discussed. Ideas for new interventions may emerge and unfold. Moreover, potential scaling-up of the interventions can be initiated.

All projects implemented by Tingbjerg Changing Diabetes combine civic learning and action for the good of the community and its residents. They are based on local priorities and are co-created through action research methodology. Tingbjerg Changing Diabetes engages with professional practitioners and residents through genuine and equitable partnerships based on long-term commitments to co-creation and co-learning, to effectively reduce disparities in health. Some of the more comprehensive intervention projects that have been implemented by Tingbjerg Changing Diabetes are described below. These individual projects are built on shared goals and a common understanding (provided by the supersetting principles) in order to achieve long-term impact.

Long-term strategic framework for cross-sectoral collaboration



Tingbjerg Changing Diabetes provides a long-term strategic framework for cross-sectoral collaboration. Projects of various sizes and complexity are initiated, evaluated, adjusted or scaled up – and change is derived not only from the projects but also from the strategic framework within which they exist.

Tingbjerg Changing Diabetes intervention projects:

Project Family Cooking Classes

Based on a desire expressed by families with children to learn more about cooking healthily, this project involves a series of cooking classes where parents and children are taught about food issues, with the emphasis on knowing (about food, nutrition and health), doing (practical and technical competences), sensing (sensory competences and food courage), wanting (participating and acting) and being (caring for others and the environment).

Project Organic Farm Cooperation

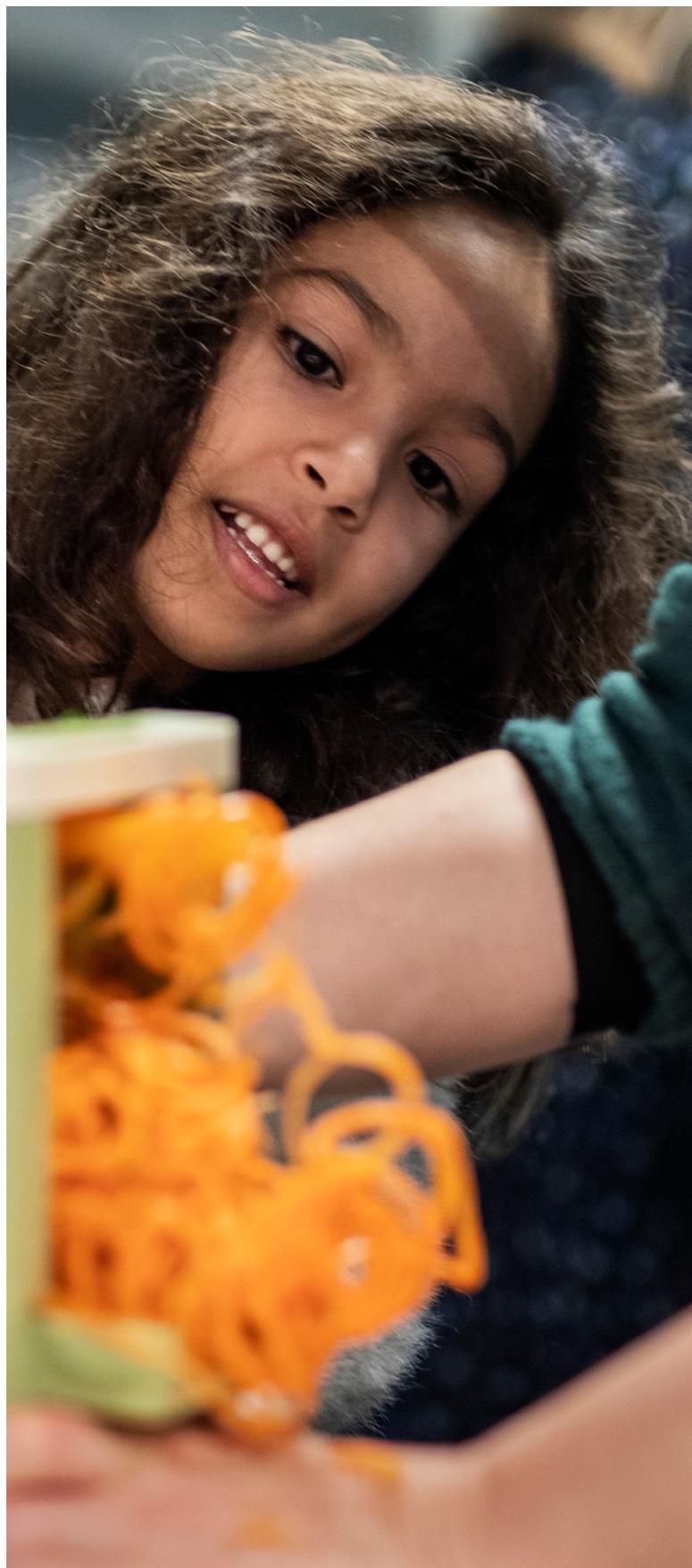
A key partnership has been established with Svanholm organic farm. Many families in Tingbjerg come from or have historical family ties to rural communities in the Middle East or North Africa. This project strengthens rural-urban cooperation by inviting residents to participate in farming activities at an organic farm 40 km north-west of Tingbjerg. In return, the residents receive farm produce such as vegetables, meat and eggs for their own consumption. The farm also provides technical expertise and ingredients to some of the other Tingbjerg Changing Diabetes projects, showcasing how the different projects in various settings build on each other.

Project Tingbjerg Social Garden

Located at the Tingbjerg Community Hub, this project is a melting pot for citizens to develop ideas and receive practical and technical support to carry out social gardening activities and projects. These projects include, but are not limited to, growing vegetables and herbs in raised beds, beekeeping, poultry farming and the income-generating production of soft drinks based on herbal extracts. The garden is an informal meeting place for both residents and those involved in the steering group, and has proved to be vital for communication among the different actors.

Project Community Restaurant

Inspired by the diverse culinary heritage of Tingbjerg residents, this project includes the establishment and running of an extremely popular community restaurant. Supervised by a professional chef, local residents prepare and serve cheap and healthy three-course dinners to fellow citizens once a week. Some of the ingredients used in the meals are homegrown, while others are brought in from Svanholm organic farm.



Project Happy Healthy Children

This project addresses a rapidly growing need to promote healthy living among the youngest residents and their families. It involves all seven kindergartens in the community and encourages their staff, the children enrolled (up to the age of six) and the children's parents to have fun while cooking, eating, learning, playing and engaging in physical activity. The professional partners involved in this project have extensive experience of working with children and families to stimulate engagement and learning in a social context.

Project Communities of Volunteers

Community and volunteering are the key ingredients of all Tingbjerg Changing Diabetes projects. By explicitly promoting volunteering, the project allows residents who may ordinarily struggle with social interactions to engage with the project, and to use the experience as a positive catalyst to develop new skills and embrace new social experiences. This particular project highlights how essential it is to utilise residents' assets and motivations.

All six projects include aspects of food and healthy eating. Having multiple projects that revolve around food and culinary experiences showcases the supersetting approach in action. Projects span several settings, from kindergartens and the community garden to the organic farm cooperative and the community restaurant. Having projects that build on each other in multiple settings is one way to ensure continued and diverse exposure, and to achieve better outcomes.

Synergy across the projects

Synergy is produced by building partnerships across projects. For example, the Tingbjerg Community Restaurant project draws on the experiences and relationships established during the implementation of two other projects – the Family Cooking Classes and the Organic Farm Cooperation. Furthermore, synergy occurs across projects when participants define new ideas and engage in new initiatives within the supersetting environment.



Challenges along the way

Eagerness to demonstrate improvements in health outcomes

One challenge of the initiative relates to the desire to objectively measure improvements in health outcomes and the social (not technical) difficulties that this presents. Objective measurements of health impact require clinical examination and blood sampling. This is invasive in nature and not compatible with the values and principles of Tingbjerg Changing Diabetes, which relies heavily on trust. This trust may be jeopardised if residents feel that they are being pressured into health check-ups or blood tests. Instead, the initiative analyses long-term person-specific socioeconomic and health data obtained from registers of national statistics, based on people's contacts with the public health and social sectors.

Moreover, Tingbjerg Changing Diabetes focuses on strengthening social capital among residents and thereby reducing social inequity. Eventually, this will lead to improvements in the health and well-being of residents. As such, success is not only measured in terms of health outcomes. The initiative has already succeeded in getting a variety of vulnerable residents who may otherwise have struggled with loneliness to interact with other people. A key point here is that health is largely created outside of the healthcare sector and, therefore, the focus on social determinants is paramount for the success of the initiative.

Changing political winds

Another challenge relates to the longevity of the initiative. Because Tingbjerg Changes Diabetes spans a considerable period of time, political priorities are likely to change, and this may affect the initiative. The initiative therefore constantly adapts and works dynamically according to the context. Maintaining a close dialogue and interaction with several decision-making levels within political organisations and within the wider stakeholder landscape, including directly involving decision-makers in the processes of the initiative, is key to overcoming the challenge of changing political priorities and a constantly evolving local context.

Stakeholder complexity

An important element of the supersetting approach is that projects build on each other and relevant stakeholders are brought in and out of the initiative along the way. In Tingbjerg, the coordination group has opted for a dynamic governance structure in which actors assume leading roles based on competences and desire. However, as more and more stakeholders have moved in and out of this governance structure, its complexity has increased. Steno Diabetes Center Copenhagen has tackled this challenge by assuming a leading role in the coordination group, communicating regularly with stakeholders and aligning expectations.



Programme outcomes – health impact through social action

To date, Tingbjerg Changing Diabetes has managed to:

- Establish a strong, dynamic partnership alliance, working with the shared purpose of developing Tingbjerg's community and supporting its residents to live healthy lives
- Establish a vibrant physical setting where residents engage in social activities and in the social development of the local community, including urban gardening, food workshops, a community restaurant and youth activities
- Foster participation and engagement in joint activities among residents of all ages, genders and ethnicities
- Mobilise and retain socially marginalised residents, including families with children
- Foster the commitment of a wide and flexible stakeholder network to support and sustain activities and projects.

Catalysts for success

Allowing for different levels of engagement

Creating ownership and empowerment is vital, but one key learning from Tingbjerg Changing Diabetes is the importance of allowing different levels of participation and engagement. While the initiative invests substantial resources in establishing conducive environments for residents to take part in co-creation processes and take ownership of activities, not everyone has the personal resources or capacity to do so. One of the key enablers of success is allowing different levels of participation based on personal interests, capabilities, time and resources. It is enough for participants to simply 'be present' without actively participating, co-creating or taking ownership. Just 'being present' can move vulnerable individuals out of social isolation and loneliness to feeling that they are part of something bigger.

Working together based on principles and a shared language

A key learning from Tingbjerg Changing Diabetes is the value of a shared language. In Tingbjerg, the supersetting approach and its principles serve to guide and direct the initiative's many stakeholders and individual projects. When everyone agrees on an overall goal and direction, less steering is required and it is easier to maintain a dynamic and rather loose governance structure. The principles of the supersetting approach have proven effective in aligning expectations and creating trust among stakeholders and community residents. The value of having clearly defined principles is based on their generic and universal applicability across projects, activities, settings and stakeholder groups. Initially, the principles were the language of the researchers, but they have gradually become accepted and implemented by all stakeholders involved in the initiative. In this sense, the principles are the glue that holds the entire initiative together, despite the wide diversity of stakeholders and projects.

Working through social sector institutions

In Tingbjerg, the importance of working through social sector institutions to achieve health impact has been empirically demonstrated. Health is deeply rooted in social and cultural determinants, which is why social action and change is required to bring about improvements in health outcomes. For this reason, it is necessary to collaborate with social sector institutions. In Tingbjerg, these social sector institutions – which are active on the ground in the community on a daily basis – were prepared to collaborate from the very beginning. One of the many advantages of working with social sector institutions is that they operate in the community and thus have great potential when it comes to establishing trusting relationships with residents.

Working with both vertical and horizontal integration

Tingbjerg Changing Diabetes has focused on establishing partnerships at different levels:

- Vertical integration: establishing trusting relationships at all levels of an organisation from bottom to top
- Horizontal integration: establishing trusting relationships between different organisations at any given level.

In Tingbjerg, continuous attention has been paid to ensuring vertical and horizontal integration. Vertically, it is important to have a mandate for action and engagement at all levels – on the front line among teachers, nurses and social workers, but also higher up where decision-making power lies. Maintaining and nurturing these relationships is important. In this respect, a shared language is helpful, because new actors can easily be brought on board. Communicating through a variety of channels in the language of the initiative is a great way of ensuring ongoing commitment.

The importance of trust

Trust is a crucial predictor of successful partnership synergy. Tingbjerg Changing Diabetes has established trust by 'being physically present' in the community for a long time – not only for meetings, but also for broader community activities. Engaging with the community, helping out and actively participating in community events signal commitment and dedication to the higher cause of community development, and this has fostered respect and trust, and allowed the initiative to consolidate and integrate into community structures and dynamics. Building trust among stakeholders and citizens has been the foundation for establishing, maintaining and expanding Tingbjerg Changing Diabetes.

The importance of settings

The setting of the community garden in Tingbjerg has played an important role in the success of the initiative. The garden, which is truly owned by the community, provides a space for both residents and stakeholders to engage in an informal setting. The community garden was popular but deteriorating before Tingbjerg Changing Diabetes came along. During the contextual analysis of the community, it was discovered that the space was critical for social cohesion and, as a result of this, the initiative capitalised on the existing infrastructure. Tingbjerg Changing Diabetes runs a highly complex and multi-stranded intervention but, based on a common language, shared principles and locally owned settings, it has been possible to work holistically towards the same overall goals.

The importance of partnership creation

In Tingbjerg, an important aspect of the dynamic governance model has been to allow stakeholders to participate with the resources that they possess when and where they can. This ensures that the resources and capabilities of the various

stakeholders are used in the best way possible. Partnership creation is a dynamic process, and it is important to keep the wishes, needs and interests of the residents and stakeholders in mind to sustain the partnership and ensure good outcomes.

Lessons learned

- Working together with trust is key to forming partnerships. People get to know each other and build trust, and eventually these relationships turn into partnerships.
- Start with the low-hanging fruit – focus on how to support the community rather than how the community can support the project. Go into the community and explore its needs – and do not be afraid of getting your hands dirty.
- Start with and among those who are interested and motivated, and expand from there. Begin building a small 'coalition of the willing', by focusing on those who are eager to collaborate instead of those who are not.
- Start where there is energy – others will join at a later stage.
- Start in one setting and expand from there.

Next steps

The Tingbjerg Changing Diabetes intervention showcases how community can be activated as a positive driver of change. While ongoing monitoring remains essential to ensure the programme adapts and changes, to continue to deliver on its stated aims, early results suggest that the model could be used to replicate successes in other neighbourhoods around the world.