

Neighborhood walks as transport, outdoor recreation and public health

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Abstract: Facilitating walks close to residential areas is an important challenge in sustainable planning. The paper illuminates how efforts to improve conditions for and stimulate neighborhood walks are organized and integrated into Norwegian municipal planning. We mainly build on case studies in 3 municipalities of different sizes. Norwegian Travel Surveys shows that about 20 per cent of all daily trips are done on foot. Nevertheless, walking regarded as either transport, outdoor recreation or public health, have little attention in Norwegian municipal planning and management. Walking as transport is nearly absent. Transport planning is still primarily concerning motorized cars and busses and railroads, and to some extent bicycles. Walking is nearly invisible in the municipalities' organization and crumbles away in the planning system. To strengthen neighborhood walks, public health should be made as an overarching perspective for the interdisciplinary organization for walks. A main network for walking should be established through land-use planning, and substantially more emphasis should be given to achieve coherence between the 'grey' pavements and walking trails in the residential areas and the 'green' trails and roads for walking in the forests outside.

Keywords: walking; public health; outdoor recreation; transport

Background and purpose

Walking is the simplest and most effective form of movement with indisputable positive impact on public health, almost any speed and length of the walk. It is well documented that short walks are the outdoor activity that is carried out to the greatest extent (Statistisk sentralbyrå, 2017). Walks are something 'everyone' deals with independently of social class. Thus, to facilitate walking in the neighborhood with the residence as a starting point is an important challenge for sustainable planning in municipalities. Such neighborhood walks may have exercise, training and public health as the main reason, but might as well be outdoor recreation and experience, or as transport for specific task. Nevertheless, neighborhood walks concern the use of different types of land, planned and adapted through the municipalities' land-use planning according to the Planning and Building Act. The purpose of the paper is to shed light on how the municipalities work to improve conditions for and stimulate neighborhood walks. We examine how the work with neighborhood walks are organized and integrated in municipal planning and discusses how the municipalities' efforts for neighborhood walks might be improved?

What are neighborhood walks?

'Neighborhood walks' is a complex term with many dimensions. We are looking at neighborhood walks as a kind of walking and thus of importance to public health. The immediate understanding of neighborhood walking is for most Norwegians that neighborhood walks are a kind of outdoor recreation, like walk on footpaths and hiking trails in the 'green' near the residence. The public definition of outdoor recreation as "stay and physical activity in the open air in leisure time with the aim of environmental change and nature experience" has been fixed since the first parliamentary report on outdoor recreation in 1987 (Meld. St. 18 (2015-2016), p. 10). Nevertheless, in recent years there have been substantial changes in the perceptions. In the parliamentary report of 1987, it is stated that "The public work on outdoor recreation has traditionally not included outdoor activities in urban areas and other areas that are dominated by buildings." (St. meld. nr. 40 (1986-87), p. 28). This understanding is substantially expanded in the last parliamentary report about outdoor recreation, leading outdoor recreation into towns and villages: "The understanding of outdoor recreation that is the basis also includes traffic and stay in green spaces inside cities and towns, such as parks and other green structures." (Meld. St. 18 (2015-2016), p. 10). Then, the 'grey' areas are included, even though this term is not being used. In practice, neighborhood walks for many must start in the grey, on the car road, pavement or walk road. The same point of departure has walks from residence to work places, schools, kindergartens, shops, etc. These walks are in principle transport, primarily as "necessary activities" (Gehl, 1971). Travel surveys shows that the percentage of trips that take place on foot has been remarkably stable since the early 1990s and until today. In Norway, this proportion of walking tours is 21-22 per cent throughout the period (Hjorthol *et al.*, 2014, Statens vegvesen, 2019). In summary, we understand neighborhood walks as walking, which includes both public health, outdoor recreation and transport. Neighborhood walks take place both on walking trails, pavements, walk roads or car roads. It is just this link between 'grey' and 'green' walking routes that characterizes neighborhood walks. Neighborhood walks concern different forms of land-use and are thus an important element in municipal land-use planning.

Management cultures and multi-level governance

Neighborhood walks are included in tasks to multiple municipal units, but no units have neighborhood walking as their main task. It is challenging to give neighborhood walking a clear and strong position in municipal planning and management, i.e. because av different management cultures in a multi-level governance system.

Tasks within clearly defined areas of responsibility and competence, sectors, usually with their own laws and regulations, and incorporating bureaucratic and professional practices, will be more successful than tasks, which are cross-sectoral and give complex co-operation and co-ordination challenges. When performing various tasks in organizations, there is a need for argumentation and documentation of positions with reference to knowledge. Different 'management cultures' legitimizing which tasks are more important than others and how the tasks are to be solved, are developed. It provides routines for how problems are defined and solved and for handling tasks that are imposed by others (Kleven, Thorén and Skogheim, 2005). The institutional exercise of power through norms and existing schemes that legitimize positions and power is often not visible. The exercise of power is obscured and appears to be marvelous. Through historical processes and struggles, frames are created that govern what is taken for granted and not, and gives symbolic power in specific decisions, such as prioritization of various activities and types of facilities (Bergsgard, 2017). Just as important as the formal structures that provide the framework for actions, is how these structures are perceived by the peoples who are to perform

actions within the formal structures. Actions do not necessarily follow strictly the formal structures (Bukve, 2012).

Many of the tasks that are important for neighborhood walks are to a large extent governed by decisions in the management hierarchy over the municipality, at the county and national level. Here, there can be large variations in both horizontal and vertical links between management levels and sectors (Eckerberg and Joas, 2004; Bukve, 2012; Reitan, Saglie and Smith, 2012). The gaming fund for sport facilities is an example of such multi-level management. This is state funds covering up to 1/3 of the cost of facilities for sports and physical activity, including outdoor recreation facilities like walking trails, distributed by the county municipalities after applications from the municipalities. The remainder of the costs must be borne by the local authorities and sports clubs etc.

Methods and data bases

Cases

We build on case studies in 3 Norwegian municipalities. The cases are selected from an information-oriented approach with great variation between the cases, “maximum variation” (Flybjerg, 2006). The cases are not compared, but they represent examples of various Norwegian municipality types, primarily elected by population and geographic distribution. Trondheim in Trøndelag county is an example of a large Norwegian municipality (193 500 inhabitants). Moss in Østfold county represents a medium-sized city municipality (32 500 inhabitants), while Ringebu in Oppland county is an example of a small and rural municipality (4 500 inhabitants).

Data sources

The data basis is primarily municipal planning documents and interviews in the municipalities, as well as information about the municipalities accessible on the municipalities' websites. We have gone through the relevant planning documents which varies between the municipalities. This data collection goes until today, but the interviews were primarily conducted in spring 2014 (with some additions in spring 2016 and fall 2018). The interviews were conducted as single interviews in the municipalities following a semi-structured interview guide, carried out by all three researchers jointly. In each municipality we interviewed politicians (mayor/deputy mayor), administratively responsible for important neighborhood walks tasks and representatives of NGOs. A total of 20 interviews were conducted. In four of the interviews, two people participated, so that a total of 24 people are interviewed. Each interview lasted about an hour and a half.

Neighborhood walks in the case municipalities

Content

Here follows a description of how the work on neighborhood walks is organized in the municipalities and how it is integrated into planning in the case municipalities. Within each theme, we also include how neighborhood walks are handled at national and regional level. This provides important guidelines for the municipal level in our hierarchically organized management system. We do not go into detail and look primarily at the administrative organization and how the practical work on planning for neighborhood walks goes on.

Neighborhood walks as outdoor recreation

Responsibility for neighborhood walks as outdoor recreation is at national level divided between The Ministry of Climate and Environment and the Norwegian Environment Agency, the Ministry of Culture, and the Ministry of Health and Care Services and the Norwegian Directorate of Health. At the regional level, it is first and foremost the county municipality that has important tasks related to neighborhood walks. The county municipalities manage a range of grant programs for outdoor recreation and has regional responsibility for on behalf of the Ministry of Culture to distribute the gaming fund for sport facilities. Thus, the gaming fund closely links neighborhood walks to sports in the management context.

In Trondheim municipality, neighborhood walks are most visible as outdoor recreation and walking roads and trails. The responsibility is divided between departments for Culture and industry, unit for Sport and outdoor recreation, and Urban development, units for Municipal engineering, Urban operation and Urban planning. The last edition of the mandatory municipal plan for sports and physical activity (MSP) in Trondheim is divided into two parts, one for sport and physical activity and one for outdoor activities and green areas. Attention is still mainly directed towards the green areas and environmentally friendly transport possibilities to the green areas (p. 19). The plan has become a kind of continuation of the work on green infrastructure plans, but now rooted in the unit for Sport and outdoor recreation and not in the unit for Urban planning.

In Moss, unit for sports and outdoor recreation administratively sorts under Culture. Outdoor recreation is also included in the responsibility of department for Plan, environment and technical issues when it comes to parks, hiking trails, coastal paths etc. A survey in Moss shows that people in leisure time walk about as much on streets and roads as in the green areas, even though almost 90 per cent say they would prefer to walk in green areas (Thorén *et al.*, 2015). Neighborhood walks is no central theme, e.g. in the municipally approved plan for sports and physical activity. The plan comments the outdoor recreations' challenge to be heard in the debate about prioritizing sports facilities and facilities for physical activity. Most outdoor recreation users are disorganized and are 'quiet' users of what remains of public areas. Therefore, it is important that the municipality secures areas through good land-use planning (p. 32). The organized sport has plans and funds and thus sets the agenda. Moreover, the gaming fund for sports facilities is perceived as an expensive arrangement for the municipality (interview MSP responsible, March 25, 2014).

Ringebu had shared MSP plans with two neighbor municipalities to consider regional cooperation for major sports facilities. The Cultural unit has been responsible for this planning work in Ringebu. Neighborhood walks is not a priority in MSP work, because much might be achieved by cooperation with the sports, hiking and fitness clubs and other volunteers to arrange walks and clean and maintain paths (interview MSP responsible, April 2, 2014). The MSP plan states that: "It is important to motivate more to become physically active in everyday life and leisure time. Walking or cycling to work, school and leisure activities ... » (p. 74). Neighborhood walks are priority as activity, but not as a facility. In the rural municipality Ringebu, walking routes and destination is something that mostly exists in the mountains. But there have been some changes in recent years. The municipality has marked three (existing) walking trails close to Ringebu center. The ambition is to get more people out in their own local environment (see Figure 1).



Figure 1. Ringebu center with three marked routes. Map completed in the summer of 2018. Source: Ringebu municipality, 2018.

Neighborhood walks as transport

Neighborhood walks are one important part of transport, both the necessary transport for specific issues and the recreational based. Nevertheless, neighborhood walks are rarely mentioned in connection with transport, for which the Ministry of Transport and the Norwegian Public Roads Administration (NPRA) have the national responsibility. In 2012, the NPRA presented a *National Walking Strategy. Strategy to promote walking as a form of transport and everyday activity* (Statens vegvesen, 2012). The strategy was a part of the work on the National Transport Plan 2014-2023 (St. meld. nr. 26 (2012-2013)) but was nevertheless not mentioned in the subsequent National Transport Plan 2018-2029 (Meld. St. 33 (2016-17)).

In the municipalities, the responsibility for transport is mainly related to the responsibility for land use, in Trondheim divided between the Urban planning and the Environmental unit. Much of the work is done by the Environmental Package for Transport in Trondheim and an urban environment agreement between the State, the county municipality and Trondheim municipality. The most important sources of funding are tolls and state funds, but also the county municipality and the municipality contribute. The proportion of funding for walking roads is negligible, just about 1 per cent for the 2010-2020 period (Environmental package for transport in Trondheim. Action program 2017-20, p. 7). The Transport plan 2006-2015 summarizes goals, status and measures for different focus areas. None of the new measures relates to pedestrians and walking. The Walking strategy for Trondheim 2016 has “Easy to walk all

year round” as its main object. The city council has adopted the walking strategy, but nevertheless walking and neighborhood walks are not considered as an important part of the transport system, at least not in the fight for funds for new facilities.

In Moss, transport sorts under department for Plan, environment and technical issues. The municipal Master plan contains a number of sub-objectives and strategies where particularly bicycling and also walking are important themes. Action plan for transport 2014 –2020 shows that Moss municipality has ambitions when it comes to walking as transport, including a walking strategy. Since Moss is a small municipality in terms of area, the plan emphasizes that it should be possible for many to walk to and from work or leisure activities. A large part of the inhabitants of Moss live within 2 km of the city center, and most of them live within 3 km from the center, see figure 2.



Figure 2. Map of Moss showing the distance from the city center in a radius of 2 km and 4 km. Source: Moss municipality. Action plan for transport 2014 - 2020, p. 6.

The land-use part of the municipal plan (2018-2030) has recently been approved. The chapter about transportation and infrastructure says that it must “... be facilitated and ensured easy access to good and safe alternatives in terms of walking and cycle paths, pavements, walking crossings and paths in the forests, so that more people can change from car to walk or bike transport” (p. 74).

Neighborhood walks as public health

Neighborhood walks as public health is linked to outdoor recreation and physical activity (Nordh *et al.*, 2017). The Public Health Act (PHA) (2012) attributes both local and regional authorities a notable responsibility for health promotion in the municipalities. The municipality shall have an overview of the state of health in the municipalities and overriding goals and strategies for public health work shall be determined through the work on municipal plans (PHA, sections 5, 6). Public health is one of the specified tasks and considerations for planning according to the Planning and Building Act. Plans should "promote the health of the population" (PBA, section 3-1). Possibilities for walks is of great importance to physical activity (Breivik and Rafoss, 2017) and is an important arena for the general public health work (Bergem *et al.*, 2010; 2018).

In the municipal planning strategy for Trondheim municipality 2016-2019 public health, "health in everything we do" (p. 8) and social security are referred to as two main tasks that are to be assessed in all plans, without drawing up separate plans for these tasks. The responsibility for public health is divided between several departments and units. There is an interdisciplinary group for public health, but no separate position as a public health coordinator. Public health concerns all agencies, but how should public health gain in the battle for attention and resources, if no one has a special responsibility? Many in Trondheim municipality point out that the public health group does not have any real tasks. The ambition of public health in "everything we do" is not being taken properly into account (interviews Trondheim municipality, April, 2014).

Neighborhood walks as public health is in Moss assigned to department of Health and care and social services. One of four priority goals in Moss Municipal Plan 2011-2022 is "Living Conditions and Public Health". The report on Public Health and Living Conditions in Moss. Overview document 2018 includes outdoor recreation and it is emphasized that preserving and creating green neighborhoods is an important public health measure. Local walking routes are particularly important according to the report because this is cheap 'sports facilities' and have "the greatest potential for activating an inactive population" (p. 58). The report states that if the neighborhood walks should be attractive "paths and walking routes must be cleared, marked and maintained" (p.71).

In Ringebu, the public health responsibility most of all belongs to the department of Health and care, but what we call 'neighborhood walks responsibility' is to a large extent included also in departments of Culture and industry and Planning and technical issues. Collaboration with the voluntary sector is strong, especially with the hiking and trim club. This close and far informal collaboration is emphasized in the interviews (April, 2014). In the social part of municipal master plan (2014-2026), Ringebu refers itself as a 'public health municipality', and that one will "facilitate for varied opportunities for neighborhood walks out of the urban areas" (p. 6). The importance of "good physical environmental conditions", which "actively contribute to forward-looking road network, walking paths/bicycle trail." In the plan Health and care on the way to 2028 there is nevertheless little concrete about measures in the outdoor environment and the focus on neighborhood walks, even if 'health and prevention' is one of the central focus areas.

Neighborhood walks as land-use

Neighborhood walks as land use is under the responsibility of the Ministry of Local Government and Modernization, the Planning Department, on national level, and the county municipalities have the main

regional responsibility. Planning according to the Planning and Building Act (PBA) is the most important tool in land use planning. There is only one land-use objective in the PBA which relates especially to neighborhood walks. We find this under the main objective green structure which can be divided into four sub-objectives, i.e. green corridors. Under the main objective of transport and communications installations and technical infrastructure, we find as expected main bicycle networks, but surprisingly, no main walking networks (sections 11-7 and 12-5).

In Trondheim municipality, responsibility for land use is divided between several units. The Urban planning office is responsible for planning according to the PBA, the Municipal technique unit is responsible for parks and green structure, the Environmental unit has general environmental responsibility and Trondheim urban operations is responsible for operation and maintenance. The social element of the municipal masterplan 2009-2020 for Trondheim defines four main goals, one of them is: “ By 2020, Trondheim is a sustainable city, where it is easy to live environmentally friendly ”, with a sub-goal that Trondheim must: “have a physical urban design which promote quality of life and health” and strategies including i.e. to ensure “easy access to parks and recreation areas” and to develop “good walking, bicycle and hiking trails”. In the context of environmentally friendly transport, neighborhood walks are mentioned, but primarily as walking trails, green structure, outdoor recreation and public health, and to a little extent as transport.

In the land-use element of the municipal master plan 2012-2024 for Trondheim, public health and increased everyday activity and coherent green structure and road network are addressed under Status and challenges. One of the principles for urban development is high density in the local centers and along public transport routes and facilitating walking and cycling on daily travels. Continuous bicycle mains are included in the chapter on transport, but walking is not mentioned. Many employees at the Urban planning office find it strange that sports and outdoor recreation is not under their responsibility, but belongs to Culture and industry. Therefore, the plans for sports and outdoor recreation to certain extent “live their own lives” so that the land-use needs and impacts are not properly included into the work of the land-use part of the municipal master plan (interview, urban planning office, 30. April 2014).

Green structures have been an important issue in municipal land-use planning in Trondheim ever since the 1960s. Nevertheless, detailed research shows that there are great challenges to plan, design and maintain continuous walking trails through built-up areas. An example is the hiking track/walking trail between Nidelva in the city center and the entrance to Estenstadmarka, see figure 3.



Figure 3. Walking route from Nidelva to Estenstadmarka, Trondheim. Source: Amland 2015, p. 74.

The route has been plotted in municipal land-use plans ever since 1965. A review in 2015 shows that this walking route is now composed of 29 different zoning plans, adopted at different times between 1955 and 2011 (Amland, 2015). In many of these zoning plans, priority have not been given to the walking route in land-use allocation. The walking route is in many places considerably reduced in width and usually adapted to the car roads at crossings. There is a lack of following-up and coordination of implementation and operation.

In Moss, the theme land-use planning belongs to department for Plan, environment and technical issues. The starting point for the approach to land planning in the Moss region is the county plan (from 2008) where public health is a prioritized theme. Sub-goals and strategies of importance to neighborhood walking are included in all four priority areas of focus in the plan. Briefly summarized, physical activity and low threshold services, universal design, establishment of walking and bicycle trails with accessibility throughout the year are included, facilitating the use of environmentally friendly transport through the strengthening of public transport and the establishment of walking/bicycle trails

The new land-use element of the municipal master plan for Ringebru, 2018-2030, states in the chapter about green structure that these “shall address the need to define the main structures of natural areas in and beside urban areas and green areas along watercourses” (p. 76). One of the newly marked routes (tour 2 in Ringebru center) is connected to waterways through the center areas. The tours are not newly established, but made visible through marking and a new hiking map (figure 1). The municipality wants

a densified center in Ringebu where service functions and living areas must be coordinated closely and avoid retail trade outside the center (interview municipal planner, April 2, 2014).

Organization and planning for neighborhood walks

Neighborhood walks is not visible in the municipal organization

Neighborhood walks as an interdisciplinary subject is of course dispersed in the municipal organization. Neighborhood walks as outdoor recreation follow in all three municipalities national guidelines that link outdoor recreation partly to nature experience and partly to physical activity both in sports and culture and in health. The outdoor recreations' management culture is still heavily oriented towards the green areas and primarily forests outside the built-up areas and to walking paths and hiking trails. The close link to the sports through the municipal plans for sports and physical activity and the sports great need for facilities, both for recreational sports and for top-level sports, gives little opportunity for neighborhood walks in the struggle for funds for the preparation of new walking trails that require construction work and costs (Thorén *et al.*, 2016). This is also connected to understandings about the simple outdoor recreation based on footpaths without major interventions or adjustments and hence without substantial establishment costs. The large facilities are not needed for neighborhood walks. National resorts, however, such as Granåsen in Trondheim, which will also be used for international championships, "have their standard requirements that must be followed, even though they may seem unreasonable, cannot pay attention to pettiness" (interview politician, 30. April 2014). The sports are linked to strong market participants who contribute both financially and with argumentation and legitimization of large construction investments that also affect the management culture and what is significant and necessary.

Almost all sports require large construction investments, and many sports, such as football and skiing, have so much support that it is almost taken for granted that temporal sports facilities are needed and that the costs must be covered, both by public and private funds and by considerable voluntary efforts. Outdoor recreation with its tradition of simple preparation, small government support and a high degree of voluntary work, has basically little to set up in competition with the sports. In the struggle for the funds that go to facilities for sports and physical activity, the outdoor recreation is part of the sports concept and thus virtually doomed to lose in the fight for facilities that are to receive gaming funds. On the other hand, it is a tradition in carrying out minor improvements and simple measures on walking routes and trails, both as separate municipal actions, coordinated with the activity of technical departments, often in association with voluntary organizations.

Neighborhood walks as transport is strongly characterized by professional traditions and management cultures, from national to local level. It is roads and railways that dominate, both economically, politically and academically. The road engineers and the economists have the professional hegemony. At the national level, the national walking strategy from 2012 is completely forgotten, at least not mentioned, in the latest national transport plan (Meld. St. 33 (2016-2017)). Still, it is the walking and bicycling trails that have to adapt to the car road network and not the other way around. This makes it often difficult to construct the shortest paths for walking and bicycling. There are changes going on, but it is particular in planning and development of bicycle trails that have had a greater impact, while the focus on walking is more absent. Within transport, major changes must be made to ensure that walking and neighborhood walks are recognized as an important mode of transport.

Neighborhood walking as public health is closely linked to walking as physical activity and has high priority in the municipalities. All municipalities have more or less organized arrangements for this. Public health is naturally linked to health and the municipalities' activity for preventive and treating work, which traditionally has no strong organizational links either to culture and sports or technical agencies. The management culture, both nationally and locally, is characterized by health and physical activity, and less connections to land-use planning and physical facilities. It presents challenges in finding well-functioning ways to organize the large and varied subject matter of public health. A public health coordinator is needed, but not enough, to be able to handle this comprehensive field of action. The municipalities lack arenas that combine the physical activity of walking and public health with walking as outdoor activities and especially with walking as transport.

Neighborhood walks as land use and land use planning are in all three municipalities relating to technical sector and responsibility for land planning and follow mostly established management cultures across the public administration levels. A main walking network is not even a land-use objective in the PBA. On the other hand, we see that practically oriented and committed employees in the municipalities' technical sector get a lot out of small funds for walking trail etc. by seeing measures in context and utilizing the opportunities for coordination of construction activities. Such measures can be decided and implemented quickly, without extensive search processes (interview, municipal employee Moss, March 25, 2014), and often in close cooperation with the voluntary sector (interviews with representatives of both the Culture department and the Trim club, Ringebu, April, 2014). Walking paths and hiking trails are important elements of the green infrastructure, but when the responsibility for the green structure, which in Trondheim, is added to the Unit for sports and outdoor recreation, it may mean weaker links to planning and municipal land-use plans.

Neighborhood walks crumbles away in the planning system

Neighborhood walks in planning context we find first and foremost in the municipal master plan, both in the social element and the land-use element, and in the plan for sport and physical activity. Moreover, we also find neighborhood walks in green structure plans, public health plans, transport plans and walking strategies. In all the three case municipalities, the social element of the municipal master plan have considerable attention around neighborhood walks. A nationwide survey that shows that almost 80 per cent of the planning managers in the municipalities think that the municipal master plan's social element, and just over 70 per cent that the municipal master plan's land-use element, contains guidelines for neighborhood walks measures (Thorén *et al.*, 2018, p.36-37).

In the land-use element, neighborhood walks are mainly dealt with in the context of outdoor recreation and continues green structure, walking trails and to a little extent as transport and road network. The transport plan for Trondheim, 2006- 2015, and the national transport plans, mentions barely walking. Although the Norwegian Public Roads Administration for several years has had an effort for walking strategies, this appears to be a work on the side of the ordinary and traditional work for the development and maintenance of the car road network. The municipal walking strategies have not yet led to major changes. Preliminary results from a recent national travel survey in 2018 shows a reduction in car trips and a transition to public transport and bicycle, while the proportion of walks is stable at 20 per cent. The outdoor recreation interests are concerned with the green and work for the shortest possible distance between the residences and green areas and continuous walking trails, preferably no more than 500 meters. The pavements/walk roads which in most cases are used to travel these 500 meters, are given

less attention. There is a little attention to the important connection between the grey traffic routes for walking in built-up areas and the green walking trails and the forested areas outside.

The municipal plans for sports and physical activity are the type of plans that, according to the planning managers in Norwegian municipalities, is mostly concerned with neighborhood walks measures, as much as 80 per cent consider this (Thorén, *et al.*, 2018, p.36). Yet we see from the case municipalities that when the funds are to be distributed, it is only a few percentages that go to neighborhood walks. It is the sport and sports facilities and associated physical activity that dominates. The gaming funds are perceived as complicated to obtain, with time-consuming application processes that may seem unnecessarily extensive and complicated for many walking roads and trails that are often simple and small facilities. Besides, the gaming funds requires considerable deductibles. Plans and studies for public health contain a lot about physical activity, outdoor recreation and neighborhood walks, but there are often missing connections to the physical facilities which is an important prerequisite for activity. The general impression is that we find considerable attention around neighborhood walks in plans and reports at the overall level, such as the social element of the municipal masterplans, but this attention gradually disappears on the way towards concretization and implementation.

Improvements for neighborhood walks?

Neighborhood walks are included in many themes, but nevertheless seldom is winning the battle for resources. Neighborhood walks is a typical interdisciplinary area and is therefore particularly tied to the two most interdisciplinary topics we have addressed in connection with neighborhood walks, public health and land-use planning. The main rationale for neighborhood walks we believe is in the public health, and the most important instrument we find in land-use planning. It gives the perspective of our discussion of possible improvements.

The outdoor recreation has a management culture that is still strongly linked to the green areas. The green areas are of course important to neighborhood walks, both as nature experience and physical activity. Nevertheless, the design of the grey areas closest to the residential areas are often the most important precondition, or barrier, for neighborhood walks (Thorén, *et al.*, 2015). Outdoor recreation will need to give more attention to this important relationship and work more for outdoor recreation on grey areas and the relationship between the grey and the green transport routes.

Transport is mostly concentrated on car roads and footpaths and bicycle trails in connection to the car network, with a management culture dominated by car road engineers. So far, the walking strategies have changed this picture. Public health is an interdisciplinary focus and responsibility area in the municipalities, also related to neighborhood walks, but first and foremost as physical activity. The connection to neighborhood walks as physical constructions is weak organizational (Tilset, Gjørund and Heggem, 2015). Neighborhood walks and public health have attention in the planning departments, but crumble when it comes to concrete plans and implementation. It is areas for development purposes and large transport facilities that receive the greatest attention and neighborhood walks only come as supplementary supplements. Neighborhood walks are primarily seen as walking trails in the green structure. There are great opportunities for improvement by increasing the effort for physical activity and the physical facilities that are a prerequisite for activity. Public health is an excellent argument for neighborhood walks.

Neighborhood walks are spread in the municipality organization. As important as the organizational chart and the units, is the cooperation between different parts of the organization. If the cooperation works, the formal organization has less importance. Nevertheless, there are some overriding principles for organizing neighborhood walks that in our project point out. Firstly, the interdisciplinary organization of public health must be strengthened. Public health must to a greater extent be able to combine efforts for physical activity and physical facilities in planning and implementation. This means both establishing a common organizational arena for all relevant areas of responsibility and that this arena must be centrally located in the organization. The second is to strengthen neighborhood walks as a purpose for planning, especially land-use planning. This means, to a greater extent than in most municipalities today, gathering organizational responsibility for neighborhood walks and land-use to the planning responsible in administration and politics. The hierarchical structure of planning under the Planning and Building Act is so strong that the responsibility for all major land-use objectives, also linked to neighborhood walks, should be here.

All land-use planning concerning neighborhood walks should be collected in the unit in charge of planning and directly attached to the work with the municipal master plan follow-up be zoning plans. This means making walking roads and trails and green structure to a very clear planning responsibility. It also includes ensuring much clearer coupling is between walking trails walking roads and pavements, so that we get a continuous main network for walking comprising both grey and green walking routes. A concrete proposal is to change the Planning and Building Act so that the land-use objectives in both the land-use element of the municipal master plan and in the zoning plans so that main walking networks is included in the same way as main bicycle networks.

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