

Chapter 20

Swedish Strategies for Prevention of Residential Fires: The Case of the Swedish Fire Protection Association and the Swedish Civil Contingencies Agency



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Abstract The chapters above and the research they are based on point towards a viable strategy to reduce the consequences of fire in dwellings, regarding mortality, injury, loss of residence and property. How can this be put into practice? In this chapter, two synchronised and complementary strategies from the Swedish Fire Protection Association and the Swedish Civil Contingencies Agency are presented as models, and the processes connected to the strategies are discussed.

The two organisations strive towards a common goal on paths that sometimes differ because of their differences in characteristics. Collaborations between the two are seen as a way to make that a strength. Together, they can influence many different parties with many different tools. The scope can also be widened based on the collaboration when the Swedish Civil Contingencies Agency weighs more towards the safety of lives and the Swedish Fire Protection Association therefore can weigh more towards the safety of the environment and property.

The chapter takes the perspectives of the two organisations and is based on their experiences and policies, which may not always be results of academic research.

Keywords Residential fires · Fire strategy · Fire safety strategy · Vision-zero implementation · Fire indicators · Prioritized fire measures · Sustainable residences

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Switzerland AG 2023

M. Runefors et al. (eds.), *Residential Fire Safety*, The Society of Fire Protection
Engineers Series, https://doi.org/10.1007/978-3-031-06325-1_20

1 A National Fire Protection Strategy

In many countries, the prime responsibility for the Fire and Rescue Services and, consequently, for the bulk of the fire prevention work falls upon the local municipalities. In Sweden, this responsibility is regulated in the Law on Protection Against Accidents [1]. According to this Law, municipalities shall plan and organise its prevention activities in order to effectively prevent fires. Special emphasis shall be put on the prevention of fatalities and other serious injuries. To achieve this, the municipalities shall have a goal-oriented action programme describing its preventive activities. The factual situation is, however, that in most municipalities, even in the bigger cities, fatal fires will not occur with such a frequency that a local statistical analysis or goal-oriented follow-up of occurrences will be meaningful. Therefore, the need for a national goal-setting regime and strategy, combined with a nationwide surveillance system, will be evident.

There exist several such strategies in other countries. For example, in Norway the parliament set a strategy for fire prevention in 2009 [2], later followed up with a communication strategy [3]. In Europe, initiatives for common strategies on EU level have been put forward more recently [4].

In the United States, the Vision 20/20 [5] was founded in 2008 by the US branch of the Institution of Fire Engineers with the support of a number of public and private organisations.

In Sweden, more people than usual died in connection with residential fires 2009 (124 people).

During the autumn, three notable fires occurred in which a total of 15 people lost their lives. The three tragic events became an eye-opener for society and a symbol of the problem of fatal residential fires. Sufficient knowledge on how one should act in the case of a fire was lacking as well as functioning fire alarms which could have warned those in danger at an early stage. In one of the fires, those who died were also restricted in their ability to move and could not evacuate without help.

In November the same year, the Swedish government gave the state authority, the Swedish Civil Contingencies Agency (MSB), the task of producing a national strategy on how fire protection could be improved through support to individuals. A national vision zero inspired by the national vision zero for transport safety was formed: “No one should die or be seriously injured as the result of a fire” (see Chap. 15). Concrete goals were also established which would lead towards the vision. The number of deaths and serious injuries would reduce by a third by the year 2020. Furthermore, awareness among individuals with regard to fire risks and how to act in the case of a fire should be increased as well as the number of functioning fire alarms and fire protection equipment in residences. From the start, it was clear that this must be a long-term commitment and that it would need to be carried out together with many different parties.

In 2010, a national group for fire protection was formed by MSB with the task of coordinating, managing in the long-term and, when necessary, develop the national strategy. The identification of the need for support and guidance for the

implementation of the strategy and assistance with resources in order to produce these guidance documents is very important. The parties participating in the group are state authorities with responsibility in the area, representatives from the municipalities as well as interest groups for the municipalities and regions, property owners, insurance companies, chimney sweeps, fire chiefs and the Swedish Fire Protection Association (SFPA).

Since the national strategy was adopted in 2010, the available knowledge has changed considerably. A large research undertaking was launched in 2013, and in the years following, researchers have mapped different aspects of residential fires: in which residences fires take place; where the fires start; who is affected and how; as well as which efforts and technical systems can prevent a fire from starting or reduce its effects.

At the start of 2019, a review of the focus of the strategy was begun in which the goal was to establish new milestones up to 2030 and to prioritise measures in order to achieve the established goals. MSB gathered stakeholders together in several workshops in which issues connected to the setting of goals and development within the fire protection field up to 2030 were discussed. In the same year, SFPA initiated its work on a new strategy for residential fires, a project that is similar to MSB's in many ways but done from the perspective of a non-profit organisation.

In order to make long-term improvements to fire safety possible, many parties must come together, and a strategic plan is an important element in the leadership of this project. The creation of a national fire protection strategy sends an important message and can help to bring the issue to the fore. If important stakeholders choose to support it, society can gather the strength to achieve the desired result. The great challenge then lies in the implementation of the strategy, to get those involved to go from nice words to concrete action which will lead to the common goal.

A strategic plan also lays the groundwork for long-term work which can encompass many different operational plans and can be adjusted when needed without changing the strategic plan. In addition to their own organisation, other organisations can easily connect to the strategic plan with their own operational plans. In that regard, the strategy can serve as guidance and support. By helping to build a network from a national perspective, stakeholders can be inspired by each other and good examples can be set. Local involvement and champions of the project can function as catalysts (Fig. 20.1).

The strategy should be a long-term plan that leads to a (long-term) goal. Simply, where are we today? Where do we want to be? How do we get there?

2 A Strategy for the Whole Society

In order for a national fire protection strategy to be able to take real effect, broad participation is needed from those involved at different levels. All parties concerned should be included early on in the process and they should also get the opportunity

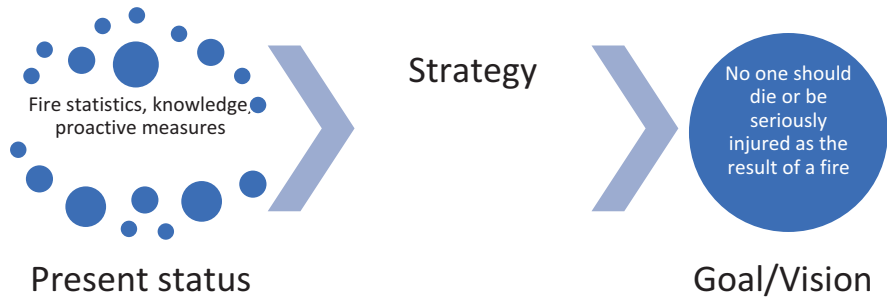


Fig. 20.1 The strategy forms the overall journey from present status to desired status but needs to be supplemented by operational plans

to comment on the final strategy before a decision is made. Those involved must feel a sense of ‘ownership’ for the content in order to be able to take responsibility for the implementation in the next stage. It must also be clear in which way the different parties can contribute and how they can work together. When the strategy is implemented, it will be advantageous for other parties to be involved through their own operational plans that connect to the strategic plan.

At a *national level*, a central authority or organisation should be given a clearly designated responsibility in order to coordinate and drive the project forwards. However, it is also important to note that the work must be done in close collaboration with other authorities and interest groups. At a national level, it is important to focus on developing the system and creating the conditions needed for the project on a local/regional level. This can happen by, for example, revising and clarifying regulations and legislation, creating support and guidance for the project on a local/regional level and setting good examples, etc.

At a *local/regional level*, the municipal rescue services can be a driving force for the project, but it is important that this happens in close collaboration with other authorities and organisations. There are several examples of successful collaborations with property owners of multi-residential buildings. For example, with respect to spreading knowledge to the residents and ensuring that there are functioning fire alarms in the residences. In order to improve fire protection for vulnerable individuals in society, authorities such as social services and health care in the municipality must work together. The staff in these organisations can best identify which individuals require improved fire protection and can also identify risks and carry out measures in the home environment.

It is also important to involve *academic representation* (researchers) in the project. From a national perspective, it is possible to create incentives and stimulate different initiatives in order to increase knowledge of the challenges and of the best way to work to reduce the number of residential fires and their consequences.

The reasoning behind involving many different parties in the strategy project is to achieve a greater impact and to reach a wider audience. As the parties involved possess different competencies, the quality of the work will most likely be better.

However, those involved have different incentives and different conditions that they must adhere to. In certain cases, an authority can have the right to demand things from certain parties, for example through legislation. At the same time, there are constitutional restrictions on what can be asked of other parties. In contrast, non-governmental organisations, for example, a non-profit organisation, cannot demand anything from anyone, but there are also no limitations on whom they can try to influence.

3 The Process to an Established Strategy

Broad participation is a success factor in reaching the goal and in the success of the strategy. This means that important parties need to be involved with both the development of the strategy and continually during the implementation.

The process of developing a new strategy can begin once a decision to do so has been made at the necessary level. That decision should be preceded by a pilot study which should at least include a needs analysis, goal setting and resource allocation, as well as which resources in society should be covered by the strategy. One very important part of the preparatory work is to describe the challenges and the knowledge that exist in the area. The result of the most recent research must lay the basis for the needs analysis, which is a part of the preparatory work, so that the strategy goes in the right direction in order to achieve the goals.

A presentation of the results of the pilot study should also be conducted in conjunction with other stakeholders in order to ensure that all involved understand the conditions of the project. Thus, forming an important basis for good leadership for the project leader. The project needs to find a balance between, on the one hand, taking ownership for their own process in order to achieve the goal within the framework set out, and on the other hand, fostering a project that allows other parties involved to feel a sense of “ownership” for the end product. The process can take form in many ways, but it must include many occasions for dialogue in order for agreements to be made, similar to the Delphi method. It cannot be expected that all parties will be in complete consensus from the start; however, with a good process, this can be achieved in the end, and it is of the utmost importance for the success of the strategy that this happens (Fig. 20.2).

4 From Strategy to Practice

When the strategy is determined, the real work will begin, namely creating results and thereby achieving the goals of the strategy. The project can be likened to a cyclic process where the different steps repeat in order to constantly evaluate and improve the strategy (plan, carry out, follow up and provide feedback of results), see Fig. 20.3.

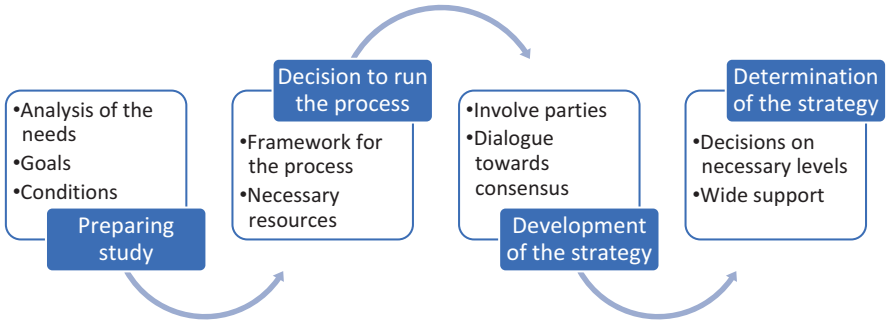


Fig. 20.2 Four stages through the process: Preparing study – Decision to run the process – Development of the strategy – Determination of the strategy

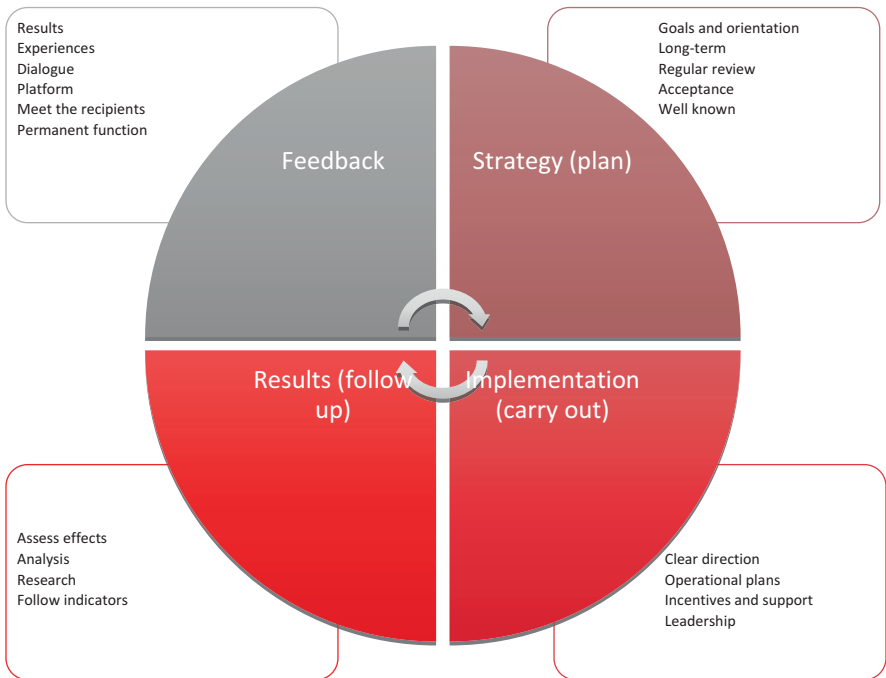


Fig. 20.3 The process from strategy, through implementation to results will need regular feedback loops followed by adjustments of the strategy/operations

4.1 Strategy (Plan)

As mentioned before, the strategy should set out the long-term plan that leads toward a long-term goal. In order to take real effect, it needs to be clear to all parties where we are going and why, as well as what needs to be done. Over time, the

results will show if we are going in the right direction, or if the strategy needs to change. Therefore, a regular review of the strategy is necessary.

An advantage of the strategic plan is that it can be supplemented with operational plans which are adapted for each party and do not need to correspond with the whole strategic plan. Thus, operational puzzle pieces from the different stakeholders are created. The implementation must be based on the incentive and abilities of the different parties involved. Some of those involved have a liability to work towards better fire safety, while others work voluntarily towards the goal. To be successful, every stakeholder must be willing and able to contribute, based on their respective circumstances. The strategy's project leader will also need to assume responsibility to take the lead and show the way.

The implementation of the strategy is a process in which the feedback of results is an important component. Regular review of both the strategic plan and operational plans needs to be carried out as the state of knowledge changes.

4.2 *Implementation (Carry Out)*

The strategic plan must be supplemented with operational plans which are adapted to each party and its capabilities. To help those involved, examples of things that can be implemented are needed and help with incentives may also be required sometimes so that their efforts can be motivated in their own organisation. In other words, the project leaders need to be able to help with both motivation and ability in order to do what is required. "Early adaptors" are often valuable when it comes to the effort put into the initial stages as they are often both willing and able and can contribute to getting living examples off the ground.

The incentive for the project can vary for the different parties involved. For some, it could be a matter of strengthening their own brand through showing that they believe the matter to be important or for others there could be a political dimension which is driven by prevailing public opinion. Policy instruments at national or regional level can be financial incentives, knowledge-driven or regulatory, enforced through inspections of the participating organisations. Knowledge is an important driving force in order to be able to answer the question *why* we should work on this matter and also *how* we should do so to best achieve the goal.

Clear goals and a clear focus will contribute to the different parties going in the same direction, even if it is in different ways. The goals must be sufficiently broken down and concretised so that those involved will be able to assimilate them and follow up on them over time. It can be good to focus on several areas so that the project is not spread out too much, but at the same time can be given the necessary scope for some flexibility and adjustment.

In order for the implementation of the strategy to be successful, the parties involved need to seek support for the project from within their own organisations. Senior management should not only back the strategy, but also take responsibility for the implementation and ensure that sufficient resources are set aside for the

project. With regard to politically controlled organisations, the operational plan should be established in the political assembly with clear expectations for feedback and results.

To facilitate the implementation for the different parties involved, concrete support and guidance is needed from a national level/system level. This could take the form of handbooks, communication material, digital support, skills development, support with evaluations/research, etc. The purpose of this is partly to facilitate the process of going from words to actions for those involved and partly to gather strength and align the project in order to have a greater effect. It is preferable that the different parties are involved in the implementation of this support so that it will be appropriately designed and fill the required needs. Those involved can also be helped to set good examples and support each other.

To successfully implement a strategy, important factors are:

- Clear direction.
- Operational plans.
- Incentives and support.
- Leadership.

4.3 Results (Follow Up)

“What gets measured gets managed” – an expression that has been around for a long time and which is often accepted as a truth, even if not everything that means something *can* be measured and not everything that can be measured is *important*. In order for a strategy to be carried out systematically and for the long term, we believe that the follow-up of results within the area of fire safety is important. Therefore, we must also regularly follow results which can be measured and which are meaningful. At a national level, this can be done, for instance, by following and analysing a number of indicators which show the direction that the development is going in and indicate how the measures should be designed. The indicators can also function as a driving force and motivation in the implementation.

The purpose of the indicators is to give an idea of whether fire safety for the individual has been strengthened and whether developments in the fire safety area are moving towards the targets set.

How should the indicators be chosen? A logical ‘map’ is needed which comprehensively describes how the organisations are interrelated – what affects what. We can call this a logic model or program theory. It stretches from goals and resources to the project itself and performance and finally to the results/effects. The effects can often be achieved in the short term or in the longer term. The indicators can be measured along the whole chain and measure the performance of individual parties as well as the long-term effects. In Fig. 20.4, an example is given of what a logic model in the area of fire safety can look like and which indicators can be connected to it.

Resources	Activities	Achievements	Short term effects	Medium term effects	Long term effects
<p><i>Examples:</i></p> <ul style="list-style-type: none"> • Budget • Personnel • Competence • Equipment 	<p><i>Examples:</i></p> <ul style="list-style-type: none"> • Regularly review the direction of the strategy • Involve actors • Be active in innovation processes 	<p><i>Examples:</i></p> <ul style="list-style-type: none"> • Knowledge based reports • Communication efforts • Guidance on at-risk individuals • Investigation of responsibilities • Financial contributions • Review of general advice (e.g. smoke alarms) • ... 	<p>Municipalities prevent and manage residential fires better</p> <p><i>Indicators:</i></p> <ul style="list-style-type: none"> - Proportion of municipalities that carry out home fire and safety checks - Proportion of municipalities with developed cooperation between several administrations 	<p>The fire protection of the individual increases</p> <p><i>Indicators:</i></p> <ul style="list-style-type: none"> - Proportion of households with smoke alarms - Proportion of households with fire extinguishers - Proportion of households with fire blankets 	<p>Fires cause fewer deaths and injuries, property and environmental damage is reduced</p> <p><i>Indicators:</i></p> <ul style="list-style-type: none"> - Number of fatalities - Number of injured - Costs for property damage - Number of developed fires

Fig. 20.4 Examples of impact relationships and indicators for a national strategy

After the logic model has been mapped, appropriate indicators will need to be specified. The first step is to “brainstorm” possible candidates. Then every indicator suggestion will need to be judged based on the specified requirements. For example, that the indicator must be clear, relevant, available at a reasonable cost and sustainable over time. An indicator also needs to be related to something else. For example, a goal, in order to contribute in the end to increased knowledge and to judge if the measures carried out have had an effect. In-depth analysis of the development of the indicators and what affects them is also needed. Research can also be a tool for mapping these chains of effect. Revision of the indicators and how they are measured should be ongoing.

4.4 Feedback

Perseverance and feedback are often important factors when it comes to implementations. The participants need feedback on their work and need to see results. They also need knowledge of how they can undertake and develop their work. The message must be consistent over the duration and providing feedback of efforts and effect is important in order for those stakeholders to maintain the work and to motivate others to become involved. Within this project, there are also good opportunities for feedback to the project leader to assist with continual development of methods and eventual adjustments of the strategies.

The implementation of the activities in the strategy will be carried out by different parties at a local, regional and national level. In order for the project to be successful, the content and aim of the strategy must be well communicated. The same applies to new knowledge which is generated while the project is in progress and feedback of experiences. Thus, regular communication of results, new knowledge and experiences must be ensured to involve and inspire all parties involved.

Communication to all stakeholders needs to be retained and organised based on different needs. More simplified and comprehensive reporting and more in-depth follow-up research are useful for different purposes. Large information platforms with different channels are an effective way of having a collective communication system which is both comprehensive and easily accessible. For example, a

homepage can constitute the central platform where different information is collected and organised into different parts and where all communication can be linked.

Communication and dialogue can take place both when gathered, for example, at yearly conferences or webinars, and successively in various forums. Digital possibilities which can reach many are important so that communication is not restricted to face-to-face meetings as these often have a smaller number of participants.

To make a developing dialogue possible while the project is in progress, it is of great importance to have permanent underlying functions which spread information and good examples to the local stakeholders. This can ensure a long-term perspective in the activities by communicating the results of the work and channel-gained experiences. Temporary ad hoc efforts tend to lose engagement and energy and fail in the long run.

4.5 *Review of the Strategy*

Gradually as the results are followed up while those involved work with the implementation of the operational plans, it will become more apparent if the strategy has had the intended effect. Are we moving in the direction of the goal or are we focusing on the wrong things? It will take time before the effect can be seen and patience and perseverance are necessary for the project to produce results. At the same time, it is important to review critically the strategic focus regularly and consider if anything should be done differently. It is especially important to remember that the knowledge available will change over time.

The best time to review the strategy can vary depending on how much has happened in the field. On a strategic level, goals and focus should be reviewed around every ten years. Measures and activities which have a direct link to the operational plans should, therefore, be reviewed more often, approximately every three years. The aim is to keep the strategy alive and relevant.

5 *Examples of Two Strategies*

MSB is responsible for issues concerning civil protection, public safety, emergency management and civil defence as long as no other authority has responsibility. Responsibility refers to measures taken before, during and after an emergency or crisis.

SFPA is a non-profit public utility association that works for a fire-safe Sweden since 1919. The national association is complemented by 20 local associations in Sweden and cooperates closely with the CFP (the international Confederation of Fire Protection Associations).

Having two strategies written by two different organisations can seem strange but they can have their advantages. In Sweden, MSB and SFPA have different roles

and different capabilities, and thanks to the interface between them, they can have slightly different but complementary focuses. MSB, as a government authority, can act with legal support within its jurisdiction but also has restrictions with regard to what can be asked of whom. SFPA does not have the same capabilities, but it is free from the governmental restraints.

5.1 MSB: A National Strategy for Improved Fire Protection

The vision “No one should die or be seriously injured as the result of a fire” is a guiding star for the national project, and in 2010, four strategic areas were identified: knowledge and communication, technical solutions, local cooperation, as well as evaluation and research. Within the area of evaluation and research, a number of indicators were developed in order to be able to follow up on development within the area in the long term. Three goals were formulated up to 2020: (1) the number of deaths and serious injuries as a result of fires in residential environments will be reduced by at least a third, (2) individual awareness of the risks of fires and how one should react in the event of a fire will increase and (3) the amount of functioning fire alarms and fire protection equipment in residences will increase.

The goals for the indicators will be followed up continually. For example, it can be stated that the number of deaths in residential fires reduced by 20% and the number of serious injuries by 25% between the years 2010 and 2018 (see Table 20.1). Now new goals have been set for the next ten-year period (2020–2030) [6]. The work has been based on the historic trend of the indicators and relevant external factors (collected through literature and workshops). Based on this, new goals were established using the keywords: Achievable and Challenging.

What measures should be taken in order to achieve the goals for 2030? Based on previous strategy projects, research within the field and workshops has been used and evaluated according to which measures are judged to have the greatest effect on the origin of residential fires and their consequences. Fatal fires and fires which lead to serious injuries are incidents which must be especially prioritised, but measures with a broad approach should be included in a national strategy.

Risk groups have been identified for incidents with different consequences (fatalities, fires with response from the emergency services and self-reported fires) and prioritised measures have been chosen based on the desired specific effect. In general, the measures have been categorised in five areas, and within these areas, activities can be found which the different parties involved can relate to. The most important measures can be found at a local level where other parties such as regions, property owners, interest groups, non-governmental organisations (NGOs) or insurance companies can get connected and receive guidance. Within the prioritised areas, supportive activities can also be found at a systems level which concern, for example, legislative reviews, guidance or participation in innovations and standardisations. The prioritised measure areas are:

Table 20.1 Indicators and milestones from 2010 to 2030

Indicator	Start 2010	2020	Goal 2030	Measure of effect
Number of fatalities in residential fires	102	79	Below 60	Personal injuries
Number of persons to hospital care	–	626	Below 600	
Number of persons in institutional care	630	470	Below 400	
Insurance payments regarding fires and thunderstorms (MSEK)	1870	1629	Decreasing trend	Property damages
Number of rescue service interventions in developed residential fires	2569	2695	Below 2500	
Percentage of households with functional smoke detectors	79%	88%	At least 95%	Protective measures (performance of the individual)
Percentage of households with fire extinguishers	36%	68%	At least 80%	
Percentage of households with fire blankets	4%	44%	At least 70%	
Percentage of municipalities with developed collaboration	–	48%	–	Protection production (performance of the municipality)
Percentage of municipalities carrying out home visits	–	40%	–	

To improve fire protection in the home environment of particularly at-risk individuals. Examples:

To deepen the cooperation between those involved at a municipal level as well as municipal rescue services and social services and health care.

To identify individuals who require improved fire protection due to an increased risk behaviour and/or limited ability to react and act in the event of a fire.

To suggest and offer adapted risk reducing measures.

The investigation of responsibilities based on legislation connected to improved fire protection for at-risk individuals, e.g. those receiving home care.

Improved knowledge to prevent and act. Examples:

To map and identify different groups with a high risk of residential fires, e.g. specific residential areas. Based on the developed area profiles, directed target-group-adapted communication efforts can be carried out such as home visits, fire protection education within language courses for those who have recently come to the country or recruitment, and training of fire ambassadors in order to spread knowledge and the message of fire protection in society.

To educate primary school students on fire protection and safety, coordinated with other parties in the municipality (e.g. the police).

The development of support for the analysis of area profiles.

The updating of training material and national recommendations.

To increase the number of functioning fire alarms. Examples:

The municipality should actively follow up on the property owner's responsibility for the fire protection in multi-residential properties. Both technical and systematic fire protection in multi-residential properties should be monitored. It is appropriate to particularly follow up on fire protection in areas where home visits show that the number of functioning fire alarms is low.

To review the standardisation around fire alarms in residences. For example, analyses, building regulations and general advice.

To work to carry out a first response within a short response time. Examples:

To analyse and plan in order to reduce the response time of a first response based on local conditions. Society's collective resources should be considered and involved to the greatest extent possible.¹

To develop knowledge through research, learning and innovation. Examples:

To work for innovation in the welfare sector and join digital initiatives by creating collaboration between health care parties who aim to reduce accidents and unwanted incidents among users of welfare services, for example.

Inventory of the need for research.

Coordination and financing of development investments and innovation processes.

To work towards the implementation of the knowledge of the future development of society in standardisations.

The measures have been identified as especially prioritised over the next 3–4 years in order to achieve the goals in the national strategy. They should not be viewed as comprehensive, but instead as guidance for those parties who work within the area on where focus should be put in order to achieve the greatest effect. The measures complement other measures which are already in use or planned. We hope that, with the participation of many parties, the goals for 2030 will be achieved, e.g. the goal for reduced fatalities (see Fig. 20.5).

5.2 The Swedish Fire Protection Association Strategy: A Fire-Safe Residence for Everyone

SFPA's strategy "A fire-safe residence for everyone" [7] encompasses all residential fires regardless of the size of the damage, even if efforts can then be prioritised and dimensioned with respect to size and cost/benefit. An important starting point for the position taken by SFPA is the certainty with which MSB's strategy places emphasis on fires which result in fatalities or serious injuries, which means that

¹See Chap. 18 for a description of capabilities and experience in relation to achieving a faster response time.

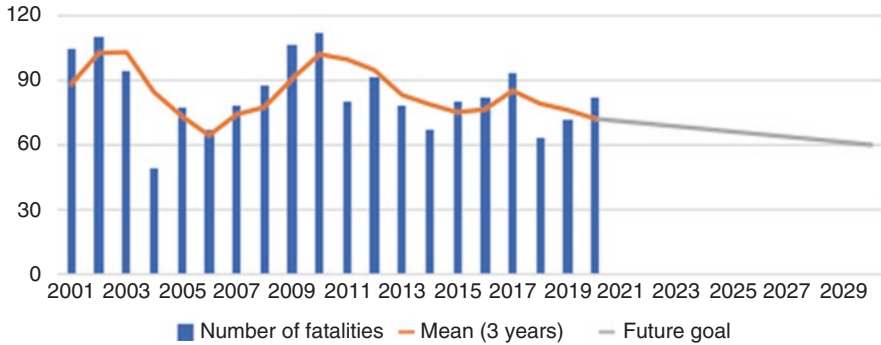


Fig. 20.5 Fatalities in residential fires in Sweden between 2001 and 2020 and future goal to 2030

SFPA can focus more on other fires. Thus, the design of the two strategies provides a resource for both parties in which they both overlap and complement each other.

The process was given two main focuses: Strategies to influence individuals to act towards the goals and strategies to work through other organisations towards the goals.

SFPA's strategy consists of four sub-areas: Sustainable residences; Safe care at home; Civil society's involvement; A strategy for everyone. The final sub-area is perhaps the most important as it clearly demonstrates that success requires the help of many. The problems surrounding residential fires cannot be solved by anyone individually and SFPA has clearly taken the position to support MSB's strategy as part of their own strategy. SFPA's role as a non-profit is also valuable in offering a hub in the joint efforts. The sub-areas have the following focuses.

Sustainable Residences:

To gather the parties concerned in order to establish goals, knowledge acquisition, collaboration and the follow-up of the consequences of residential fires.

Ecological sustainability work is focused on reducing the environmental and climate impact of repairs and rebuilding after fires by reducing the extent of the damage. Primarily, with measures on how the buildings are constructed and what fire protection is used and then through residual value saving work.

Social sustainability work must utilise the importance of a residence as a place for well-being. Work relating to fires in socially vulnerable areas must also be addressed with special measures. Deaths and injuries are of course also included in this.

Economic sustainability work focuses on the costs of fires.

Resilient multi-residential buildings are an important issue which can be quantified by measuring in: the number of residences that need to be evacuated as a result of a fire; the time which evacuated residences are uninhabitable; the economic and ecological costs of damages after a fire. Timber buildings are considered to have the greatest need for measures and the goal is that they should have at least the same resilience as concrete buildings.

Renewable energy and the technology built around it require fire safety. In this area, work is focused towards new knowledge and ensuring that the knowledge reaches where it is needed.

Safe Care at Home:

Knowledge in this area is insufficient and research is primarily needed in both practical and legal aspects.

The development of an injury prevention concept which systematically helps all parties to give residences a good quality of fire safety.

To work towards *customised fire protection for equal fire safety*. This forms an important approach which facilitates the work for those who want to help and aim to make a big difference for those who require help.

The groups have been mapped, in respect to personal risk, through research and appropriate help and relevant parties that can work to introduce this help are identified for each group.

Civil Society's Involvement:

Involvement from civil society is growing in order to support society in crises and to ensure safety in the local area. SFPA invests in utilising such resources by first response volunteers (Swedish abbreviation: CIP), enabling the upscaling of this resource.

A Strategy for the whole society:

Many of us must help if we are to succeed and there are many who can make a difference.

The Swedish Fire Protection Association, together with the 20 local organisations, operates a nationwide operation in which we reach all the different levels of society across the whole country.

We are experienced and collaborate well with big parts of society and we want to contribute where we can together with those who wish to be involved.

We have long worked to support MSB's zero vision – *No one should die or be seriously injured as the result of a fire* – and we will continue to do so.

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3. Nasjonal kommunikasjonsstrategi for brannsikkerhet. Direktoratet for samfunnssikkerhet og beredskap. Norway 2015
4. European Fire Safety Action Plan. European fire safety Alliance. Europe 2018
5. Vision 20/20 National Strategies for Fire Loss Prevention. Institution of Fire Engineers. USA 2008

6. A National Strategy for Improved Fire Protection. Swedish Civil Contingencies Agency Sweden 2020
7. A fire-safe residence for everyone. Swedish fire protection association. Sweden 2020

Mr. Mattias Delin holds a Bachelor of Science degree in Fire Safety Engineering from Lund University. For more than 20 years, starting 1998, he worked as a fire safety consultant focusing on fire safety in buildings, before he joined the Swedish Fire Protection Association and the Swedish Fire Research Foundation – Brandforsk as Research Director in 2019. Since 2021 Mattias is working full time with Brandforsk only. Mattias has also been member of the board and president for the Swedish chapter of SFPE, Society of Fire Protection Engineers.

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Dr. Björn Sund holds a PhD in Economics from Örebro University. Björn started as a project assistant and researcher in the field of Fire and Rescue Services in 1996. Since 2011 he has been employed as an analyst at the Learning from Accidents Section at the Swedish Civil Contingencies Agency. Research focus has been valuation of statistical life, stated preference methodology, cost-benefit analysis regarding faster emergency response to cardiac arrests, demographic determinants of incident experience and risk perception, willingness to pay for a quality-adjusted life-year (QALY) and residential fires. From 2018 he has been involved in evaluation and revision of the Swedish national strategy for strengthened fire protection. He is also a lecturer in economic evaluation at Karlstad University.