

# **Plan a Community Fire Safety Project**

**Quick overview**

The so-called Deming circle consists of the following steps: Plan-Do-Check-Act. This process can easily be translated to the practical implementation of a prevention project. This will give you the following steps:

**Plan**

- Set a goal*
- Determine a target group*
- Describe the expected outcomes*
- Determine what outcomes will be measured in which ways*
- Describe the strategy*
- Take stock of existing activities / materials*

**Develop and implement intervention**

- Establish a strategy*
- Conduct a pre-measure*
- Do the intervention: organize and carry out the strategy*

**Measure effects**

- Measure the realization of the expected outcomes*
- Take stock of the opinions of the people involved*
- Describe the results and effects*

**Evaluate and adapt**

- Interpret the information*
- Make a decision about adaptation and/or progress*

**Plan****Set a goal***Determine a target group**Describe the expected outcomes**Determine what outcomes will be measured in which ways**Describe the strategy**Take stock of existing activities / materials***Develop and implement intervention***Establish a strategy**Conduct a pre-measure**Do the intervention: organize and carry out the strategy***Measure effects***Measure the realization of the expected outcomes**Take stock of the opinions of the people involved**Describe the results and effects***Evaluate and adapt***Interpret the information**Make a decision about adaptation and/or progress***Plan***Setting a goal***What problem do you want to solve?**

By evaluating existing (research) data or recent experiences, most problems are 'discovered'.

However, you should still ask yourself whether the 'problem' really exists. For example, a problem can arise because many people are talking about it. Or the problem may have been created by a news message.

In the analysis you are looking for a clear cause of the problem and a clear solution. Furthermore, for behavioral prevention it is important to know all possible causes. If you know the reasons, you can match these with a solution that follows from the ultimate goal, you want to achieve.

A goal is built from the problem analysis. Answer the following questioning and formulate the goal subsequently:

-What is the problem?

-How often does it happen?

-Where does the problem mainly exist?

-What people experience the problem?

-Are there any environmental factors that are important?

-When should the problem be diminished?

*Goal: Diminishing the 'problem' to 'where it exists' 'with whom' and 'in what circumstances' within 'what time period'.*

**Plan***Set a goal**Determine a target group**Describe the expected outcomes**Determine what outcomes will be measured in which ways**Describe the strategy**Take stock of existing activities / materials***Develop and implement intervention***Establish a strategy**Conduct a pre-measure**Do the intervention: organize and carry out the strategy***Measure effects***Measure the realization of the expected outcomes**Take stock of the opinions of the people involved**Describe the results and effects***Evaluate and adapt***Interpret the information**Make a decision about adaptation and/or progress**Determining the target group***Who do you want to reach in order to solve the problem?**

The target group that you want to reach with the prevention project can be a group that is not described in the problem nor in the goal. When, for example, you want to reduce 'children under 7 playing with fire', you will focus on the parents and teachers, and probably not on the children under 7.

Springing from the questions that you used while formulating the goal, you will describe a limited target group from your analysis:

- Where does the problem mainly exist?
- What people experience the problem?
- Are there any environmental factors that are important?

The target group analysis is a description of factors that are important for the group of people that you want to reach on the basis of the following subjects, amongst other:

- Sex
- Age group
- Stage of life
- Specific (im)possibilities
- Knowledge and skills
- Independence and resourcefulness
- Responsibility
- Social competences
- Social environment
- Living environment
- Level of welfare
- Cultural environment

**Plan***Set a goal**Determine a target group***Describe the expected outcomes***Determine what outcomes will be measured in which ways**Describe the strategy**Take stock of existing activities / materials***Develop and implement intervention***Establish a strategy**Conduct a pre-measure**Do the intervention: organize and carry out the strategy***Measure effects***Measure the realization of the expected outcomes**Take stock of the opinions of the people involved**Describe the results and effects***Evaluate and adapt***Interpret the information**Make a decision about adaptation and/or progress*

*Describing the expected outcomes*

**What do you want to accomplish?**

The expected outcomes should be conceived and described in a SMART way. This means that you make Specific, Measurable, Agreed, Realistic plans which you can accomplish in a certain Time-bound period. It is impossible, however, to formulate all results in a SMART way. As given, safety is not measurable. Factors leading to safety are. Therefore, don't be discouraged by the thought that everything should be imperviously formulated.

The description of the expected outcomes shows what you want to accomplish when and how. When you add up these expected results, you will reach the ultimate set goal.

Specific; Is the expected outcome clearly defined?

Measurable; Under what conditions has the result been reached?

Agreed; Is the approach or measure acceptable to the target group?

Realistic; Is the expected outcome attainable?

Time-bound; When will you reach the result?

**Plan**

Set a goal  
 Determine a target group  
 Describe the expected outcomes  
**Determine what outcomes will be measured in which ways**  
 Describe the strategy  
 Take stock of existing activities / materials

**Develop and implement intervention**

Establish a strategy  
 Conduct a pre-measure  
 Do the intervention: organize and carry out the strategy

**Measure effects**

Measure the realization of the expected outcomes  
 Take stock of the opinions of the people involved  
 Describe the results and effects

**Evaluate and adapt**

Interpret the information  
 Make a decision about adaptation and/or progress

*Determining what outcomes will be measured in which ways*

**How will you know whether you have accomplished the results?**

From the existing (research) data you have acquired during the problem analysis, it is possible to assess the current situation. Before you start the project, it is important that you describe the current situation for every expected outcome and what you measurably want to accomplish within the set time period. In order to prevent the measurement from becoming an end in itself you can determine the level of measurement in advance.

It is possible to measure and evaluate at four different levels. Within the research terminology the first two levels fall under the header of process evaluation, the latter under the header of effect evaluation.

**Process evaluation****Level 1: Availability**

Sometimes measuring the availability is enough. In that case you should ask the question: What was the necessary effort to make the activity available to the target group?

**Level 2: Effort**

The effort describes what the implementation of a project involves. Was a brochure or a poster made which was hung and spread in 2/3 of the schools after the first mailing?

**Effect evaluation****Level 3: Effect on the target group**

At this level you look at the effect the means or activities have had on the selected target group. Has knowledge, attitude, behavioral intention or behavior been influenced and in what ways? It is about the processing of the message, in terms of understanding and appraisal and the effect of the message, both in relation to the behavioral determinants (knowledge, attitude, risk perception and behavioral intention) as well as the perceptible behavior.

**Level 4: Effect on society**

Effect on society is the highest attainable outcome. A total societal effect will be reached if a whole city or a whole country knows about your project and consequently changes their behavior.

When you have determined the level of measurement for every expected outcome you should describe the existing data. This is called a 0-measure. If there is no data available, you will have to carry out a 0-measure. The chapter 'evaluation', which describes the topic of measuring in depth, will show you how to do this.

**Plan**  
 Set a goal  
 Determine a target group  
 Describe the expected outcomes  
 Determine what outcomes will be measured in which ways  
**Describe the strategy**  
 Take stock of existing activities / materials

**Develop and implement intervention**  
 Establish a strategy  
 Conduct a pre-measure  
 Do the intervention: organize and carry out the strategy

**Measure effects**  
 Measure the realization of the expected outcomes  
 Take stock of the opinions of the people involved  
 Describe the results and effects

**Evaluate and adapt**  
 Interpret the information  
 Make a decision about adaptation and/or progress

*Describing the strategy*

**'How' and 'when' will you solve the problem?**

The goal of an intervention is to get people to show safe behavior. You call this the desirable behavior. Desirable behavior is in stark contrast to the behavior which leads to the problem. You generate the undesirable behavior from the problem analysis and you contrast this to with the desirable behavior.

For example:

*undesirable behavior*

Lighting a barbeque with methylated spirits

*desirable behavior*

Lighting a barbeque with firelighters

In order to demonstrate the appropriate behavior, people need to have the right knowledge and attitude about the behavior. Why else would they change it? You can analyze this in several ways. The most popular way is by asking people if they demonstrate the specific behavior and asking them about their awareness and attitude. Another way is by observing human behavior in a certain situation... but this does not lead to an understanding of their attitude and knowledge.

The key questions are:

- Does the target group know that undesirable behavior leads to danger and what behavior leads to safety?
- What is their position on this?
- Do they want to demonstrate safe behavior? Why or why not?
- Which factors influence whether they demonstrate safe behavior or not?

*Adapted ASE-model*

Knowledge -> attitude -> behavioral intention -> behavior  
 Blocking factors

**Analysis of causes/desirable behavior: choose the performance objectives**

Desirable behavior will prevent risk situations. In order to attain this behavior several ways of influencing are necessary.... as well as describing the blocking factors.

When you have described the desirable behavior, you start looking for the answers to the following questions. The answers provide an analytic picture for setting out a strategy, direction and prevention message.

1. What awareness (I know) is necessary?
2. What understanding (I agree) is important?
3. What attitude (I want to) should exist?
4. What should be the social influence (the environment stimulates me)?
5. What is the implicit effectivity (I can and I know) that you want to accomplish?
6. What stimulating factors (I do it because) lead to the desirable behavior?
7. What act or legislation (I have to do it) helps in this?
8. What blocking factors (I don't do it because) come into play?

**Plan**

Set a goal  
 Determine a target group  
 Describe the expected outcomes  
 Determine what outcomes will be measured in which ways  
 Describe the strategy  
 Take stock of existing activities / materials

**Develop and implement intervention**

Establish a strategy  
 Conduct a pre-measure  
 Do the intervention: organize and carry out the strategy

**Measure effects**

Measure the realization of the expected outcomes  
 Take stock of the opinions of the people involved  
 Describe the results and effects

**Evaluate and adapt**

Interpret the information  
 Make a decision about adaptation and/or progress

*Take stock of existing activities / materials*

**Take note of how others solve the problem**

Before you develop a strategy, look at others. See how organizations in the Netherlands or abroad, are dealing with the problem. Strategies and effect studies of others are very educational.

Furthermore, the information will prevent you from making the same mistakes. In short, if they have booked success, you can accomplish it as well. Approach the organizations, search the internet for information or do a short literature review.

**Gathering evidence with respect to the determinants**

A determinant is a factor which determines evolution or a circumstance. Usually, you will focus on attitude, the position towards desirable behavior, the social influence of the environment which influences the intention towards behavior or the implicit effectivity which influences the degree of effective implementation of behavior.

Determinant	Evidence: Theory / empirical / assumption	Performance Objectives	Author / year	Result	Importance
Attitude intention Barriers of implicit effectivity	What theory and proof are described	About a behavioral goal	By whom and when	Description of evidence	Importance for project

**Plan**

Set a goal  
 Determine a target group  
 Describe the expected outcomes  
 Determine what outcomes will be measured in which ways  
 Describe the strategy  
 Take stock of existing activities / materials

**Develop and implement intervention**

Establish a strategy  
 Conduct a pre-measure  
 Do the intervention: organize and carry out the strategy

**Measure effects**

Measure the realization of the expected outcomes  
 Take stock of the opinions of the people involved  
 Describe the results and effects

**Evaluate and adapt**

Interpret the information  
 Make a decision about adaptation and/or progress

*Establishing a strategy***Planning: Who does what, when and how much does it cost?**

When the target groups have been chosen and the themes per group have been defined, a plan and a budget can be made at the activity level. The question is: What prevention means will you apply when, with what message and how will these accomplish the expected results?

**What means can you use?**

	Message	Target for change	Method	Condition	Strategy
<b>Knowledge</b>	Smoke detectors, a fire alarm!	Knowledge smoke detector wakes you when you're sleeping, because you don't detect smoke	Education through poster	Simple, clear, understandable message	Hang poster in a visible place by the coffee machine in a club for the elderly
<b>Attitude</b>					
<b>Intention</b>					
<b>Barriers</b>					
<b>Behavioral intention</b>					
<b>Skills</b>					
<b>Implicit effectivity</b>					
<b>Behavior</b>					

**Making choices**

What means will you use?

What expected outcome will you accomplish using these means?

What target group will you reach?

With what message?

When will you use it?

Who is responsible?

What does it cost?

How do you measure the range of the means applied?

Means	Expected Outcome	Target group	Message theme	Circulation / dispersal / amount / span / moment	Responsibility	Time	Budget	Result (goal reached)	Measuring method / evaluation
Here you describe all means									

When you fill in this table, you can sum up the expected outcomes and judge whether you will accomplish the intended results through this tool matrix and whether you will reach the ultimate set goal within the set time limit and within the set budget.

**Plan**

*Set a goal  
Determine a target group  
Describe the expected outcomes  
Determine what outcomes will be measured in which ways  
Describe the strategy  
Take stock of existing activities / materials*

**Develop and implement intervention**

*Establish a strategy  
Conduct a pre-measure  
Do the intervention: organize and carry out the strategy*

**Measure effects**

*Measure the realization of the expected outcomes  
Take stock of the opinions of the people involved  
Describe the results and effects*

**Evaluate and adapt**

*Interpret the information  
Make a decision about adaptation and/or progress*

*Getting to work***Implementation**

After the new activities have been planned, a choice has been made with which partners you will be working and you have established the route through which the project is executed, you should ask yourself the question whether you want to pretest. Or: Do you want to test whether the means you have chosen really work?

The intervention you have decided on will be assessed within a small part (e.g. 20 persons) of the target group during a pretest based on, for example:

- Knowledge of the measure / the problem
- Attitude towards the measure / the problem
- Behavioral intention towards the measure / the problem
- Implementation intention towards the preventive measure
- Behavior towards the measure
- Blocking factors (barriers) why the measure is not implemented

You can conduct interviews or personal conversations to determine whether the project is hitting the mark. After making adjustments you can describe the entire organization and coordination structure and start the project.

**Plan**

Set a goal  
 Determine a target group  
 Describe the expected outcomes  
 Determine what outcomes will be measured in which ways  
 Describe the strategy  
 Take stock of existing activities / materials

**Develop and implement intervention**

Establish a strategy  
 Conduct a pre-measure  
 Do the intervention: organize and carry out the strategy

**Measure effects**

Measure the realization of the expected outcomes  
 Take stock of the opinions of the people involved  
 Describe the results and effects

**Evaluate and adapt**

Interpret the information  
 Make a decision about adaptation and/or progress

*Measuring the realization of the expected outcomes*

**Comprehending the effects**

In order to make a decision about finishing or continuing a project, a measurement is necessary to comprehend the effects of a project. The success of an activity is determined by its effectiveness – what will we accomplish? – and by its efficiency – how quickly and cost-effective will we accomplish it? As described earlier in the chapter on ‘measuring effect’ effectiveness and efficiency can be measured at four different levels.

*How do you conduct a pre-measurement?*

A pre-measurement or 0-measurement gives insight into the current situation before an intervention is started. The results of the end-measurement (after the intervention) are contrasted to the results of the 0-measurement. This is the ‘current situation’ among the target group, before they have been exposed to the information. Based on the timing of the intervention/education you should determine when you conduct the pre-measurement, for example a month before the information is given.

Consequently, based on the target group and the available means you should determine whether you want to conduct a written, online, telephonic or face-to-face research.

1. Collect (e-mail) addresses, telephone numbers of the target group.
2. Carry out the questionnaire with the target group. For prevention, the measurement always focuses on:
  - Knowledge about the measure / the problem
  - Attitude towards the measure / the problem
  - Behavioral intention towards the measure / the problem
  - Implementation intention towards the preventive measure
  - Behavior towards the measure
  - Blocking factors (barriers) why the measure is not implemented.
3. In order to make analyses easily, put the answers in an Excel file.

*How do you conduct a post-measurement?*

A post-measurement gives insight into the situation after an intervention has been started. The results of the final measurement will be contrasted to the results of the 0-measurement. This will show the difference between the situation without the intervention and the situation with the intervention. Thus, you can show whether the intervention has had the desired effect.

A post-measurement is similar to a pre-measurement, only it is being conducted after the information has been given. It is important not to conduct the post-measurement too soon or too late after the information has been given. If you conduct the post-measurement right after the information has been given, it will give a contorted image because people have just received all the new information. Six months after the information has been given is too long a period, because people may already have forgotten certain aspects. It is preferable to conduct the post-measurement about a month after the intervention. Sometimes it might be interesting to conduct a second post-measurement after six months, to see what the long-term effects are.

*How do you measure a control group?*

A control group is a similar group of people as the one used for the intervention, only this group is not subjected to the intervention. They are involved in the final measurement. In this way it is excluded that the perceived effect is not caused by spontaneous changes.

The measurement of a control group should be conducted in the same way as the target group. The research method, the period of the research and the questionnaire should be identical. Naturally, you should once again put the answers of the respondents in an Excel file.

*How do you report?*

In a report a comparison is made between the control group and the target group. Furthermore, a comparison of the 0-measurement and 1-measurement of the target group is made. The results of the evaluations can be comprehensively presented in an evaluation report. You can use the following headings in the report:

1. Motive, problem analysis
2. Lay-out of the project
  - a. Goal and target group
  - b. Expected outcomes
3. Chosen strategy
4. Findings
  - a. 0-measurement and post-measurement
  - b. Degree of accomplishing the goal
  - c. Degree of accomplishing the expected outcomes
  - d. Other findings
5. Conclusions and suggestions

**Plan**

*Set a goal  
Determine a target group  
Describe the expected outcomes  
Determine what outcomes will be measured in which ways  
Describe the strategy  
Take stock of existing activities / materials*

**Develop and implement intervention**

*Establish a strategy  
Conduct a pre-measure  
Do the intervention: organize and carry out the strategy*

**Measure effects**

*Measure the realization of the expected outcomes  
Take stock of the opinions of the people involved  
Describe the results and effects*

**Evaluate and adapt**

*Interpret the information  
Make a decision about adaptation and/or progress*

*Interpret the information*

**Evaluating and adjusting**

Evaluating means that the effects of the activities that have been carried out are described on the basis of their effectiveness and efficiency in a systematically and methodologically correct manner. The effectiveness shows to what extent the expected outcomes have been accomplished. The efficiency demonstrates whether the correct amount of means have been used in order to accomplish the results. In short, through the evaluation of the activities the results of the work are shown.

The result of the evaluation is given in continuously steering towards results. Comparing different prevention activities is educational and will teach you what approach works best. But there are more reasons to evaluate well. Internal communication can, for example, also be a reason to evaluate. Results can show that the activities are either worth starting, continuing or ending. Especially communication with policymakers works well with demonstrable arguments from the evaluation. In external communication, results can furthermore demonstrate whether an activity is relevant. With this form of communication both a basis for policy making as well as for support or cooperation can be attained.

Interpreting information for evaluation is meant to give meaning to the information on the basis of the expected results and the expected outcome. The data can demonstrate whether, in the future, it is worthwhile to conduct research in a similar or a completely different way. In any case, the evaluation will lead to a better understanding of the problem and the possible solution.

**Plan**

*Set a goal  
Determine a target group  
Describe the expected outcomes  
Determine what outcomes will be measured in which ways  
Describe the strategy  
Take stock of existing activities / materials*

**Develop and implement intervention**

*Establish a strategy  
Conduct a pre-measure  
Do the intervention: organize and carry out the strategy*

**Measure effects**

*Measure the realization of the expected outcomes  
Take stock of the opinions of the people involved  
Describe the results and effects*

**Evaluate and adapt**

*Interpret the information  
Make a decision about adaptation and/or progress*

### *Making a decision about adaptation and/or progress*

#### **Make a decision**

Information and evaluation lead to a decision you will make or which has to be made in relation to the progress or direction of the project. To put it simply, there are only three conclusions you can reach:

**1. You completely miss the mark**

Usually you will achieve something, but the costs are not really worth the trouble. This is a positive thing: you now know that what you are doing will not accomplish the goal and should therefore be discontinued. Describe the reasons why and share this knowledge with as many other relevant people as possible.

**2. You found indications for fine-tuning the message to change behavior**

Take the indications seriously and include them in the plan for a follow-up of the project. Describe the indications and share this knowledge with as many other relevant people as possible.

**3. You're doing a great job: keep going!**

If you have accomplished specific behavioral change with an acceptable investment... Keep going and try to determine why the activities are so successful. Describe this knowledge and share this with as many other relevant people as possible.