



Addressing Psychosocial Factors Through Capacity Building:

A Guide for Managers of Contaminated Sites

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Foreword

This guide was developed by the Contaminated Sites Program of the Healthy Environments and Consumer Safety Branch of Health Canada. Original content was provided by consultant Richard Lafond and editing was supplied by Creative Solutions Communications.

The Contaminated Sites Program has a mandate to provide expert support, guidance, training and advice to Federal custodial departments with a responsibility to manage contaminated sites, to assist them in addressing the concerns raised by affected communities and other stakeholders.

One important lesson learned by Health Canada staff involved in conducting human health risk assessments is that risk assessments do not provide all of the information required to effectively manage a contaminated site. A more comprehensive approach, which includes public involvement, must be adopted when dealing with human health issues associated with contaminated sites. Site managers will need to not only take into account the immediate health concerns of stakeholders, but recognize that there is a complex network of factors – psychological and social – that contribute to stakeholders' physical, emotional and mental well-being, and impact significantly on their ability to participate effectively in any public involvement process. The impact of psychosocial factors on the affected community can contribute significantly to how effectively the site can be managed.

This guide will provide an introduction to understanding the psychosocial affects of individuals living and working near a contaminated site. In addition, this document will outline the community capacity approach to addressing these issues and provide strategies for building a successful public involvement plan. This guide has been designed to work in conjunction with the Health Canada guidance document, *Improving Stakeholder Relationships: Public Involvement and Contaminated Sites*.

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I Introduction

In recent years, officials who are responsible for managing contaminated sites have increasingly recognized that the work must involve more than simply removing the harmful agent. The presence of a contaminant in their environment affects people, both as individuals and as members of communities, in complex ways that go beyond the immediate health concerns directly related to the contaminant. In particular, the effects of psychosocial factors on the residents of a contaminated area can have a significant impact on how effectively the site can be managed.

Psychosocial factors are the basic social, psychological, and cultural aspects of human interactions and their effect on mental well-being. These factors do not act in isolation but form a complex network that can affect the health of individuals and communities near contaminated sites. Their intensity and impact will vary depending on proximity to the site, degree of exposure, losses experienced and efforts made by the authorities to provide appropriate psychosocial response measures.

For site managers, understanding the emotional and social effects of contamination should be as important as obtaining quality scientific evidence and technical expertise. In order to effectively manage a contaminated site, the scientific and psychosocial analyses must be integrated into the overall plan for the site. This approach will ensure meaningful public involvement strategies that result from an understanding of the concept of community capacity.

Community capacity refers to the ability of a community to address issues that can affect its well-being and sustainability. Integrating this approach into the management of a contaminated site requires ongoing support for community participation in all stages of site identification, assessment and remediation. This can be done by providing opportunities for stakeholder training and skills-development, as well as resources to facilitate community engagement. Managing contaminated sites without meaningful community involvement can create an environment of distrust and frustration which can delay an assessment process or a remediation strategy.

This document examines the psychosocial factors associated with site identification, assessment and remediation in two broad categories: Section 2 (**Psychological Factors**), which are those that primarily relate to the emotional well-being of residents as individuals, and Section 3 (**Social Factors**), which primarily relate to the well-being of residents as members of a community. (For a list of factors divided into the more common health-sciences categories of physical, cognitive, emotional and behavioural effects, see the Appendix.) Section 4 (**A Community Capacity Approach**) of this document provides concrete strategies for the development of public involvement plans that utilize a community capacity approach to address these psychosocial factors.

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Psychological health is as important to overall well-being as physical health, and should be an integral part of public health practice – including public health responses to contaminated sites. Residents of communities exposed to hazardous substances often find the experience emotionally stressful. They frequently undergo a number of psychological reactions, the most common of which are outlined here.

2.1 FEAR

Not surprisingly, fear is probably the most common psychosocial reaction to news of hazardous substances in a community. In most hazardous situations, people can run from or combat the threat. But people living near a contaminated site cannot avoid the hazard, and therefore often must live with their fear for extended periods of time. When fear is prolonged, it can lead to anxiety, depression, and feelings of helplessness.

2.1.1 Fear of Immediate Dangers to Health

First and foremost, people quite naturally fear that their health may be jeopardized by current or past exposure. Particularly strong emotions are aroused by such unavoidable and immediate dangers as the contamination of air, water or food.

2.1.2 Fear of Long-Term Health Effects

The public also has fear about the accumulated health effects of long-term exposure to contaminating agents; worrying that residents may suffer health impacts such as cancer, birth defects, and shortened life spans. People's sense of vulnerability is prolonged by these concerns, since "it is not at all clear to those affected whether the worst is over or yet to come." Even once the contaminant has been contained or cleaned up, the sense of being threatened often lingers, and "a feeling of closure – for individuals or for the community – remains elusive."¹

2.1.3 Fear for Well-Being of Children

The presence of contaminated substances also increases the public's fears about the health and well-being of children. If the contaminated site is near a residential area, parents may worry about younger children playing outside, putting soil in their mouths, drinking water or otherwise being exposed to the toxic substance. The community may be especially concerned about anything that poses a risk to pregnant women or mothers who are breastfeeding.²

2.1.4 Unseen Dangers

People are often most frightened by what they cannot see. Therefore, the presence of toxic substances that are odourless, colourless and invisible to the naked eye is particularly troubling to the public. This fear may be reinforced by incomplete knowledge about the level of exposure or of later consequences.

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In contrast to those who are threatened by a natural disaster, people living near a contaminated site have the added stress of not knowing whether or not they have been exposed to the threat. The dangerous substances often cannot be sensed, and any adverse health effects they cause might come about far in the future. This lack of knowledge can be extremely frightening and stressful.

2.1.5 Fright Factors

Residents' fears can be exacerbated by certain fright factors – conditions that increase the degree to which existing risks are worrying. These conditions include the following:

- The risk is perceived to be involuntary and inescapable.
- The primary cause of the risk is, or is seen to be, human rather than natural causes (someone is to blame).
- Residents receive contradictory or confusing statements about the risk from responsible sources (leading to the assumption that information is being kept secret).
- The hazardous substance poses particular danger for the future, e.g., through the onset of illness many years after exposure.
- The risk is seen to be inequitably distributed (leading to conflicts within the community).
- The particular hazard is poorly understood by science.³

2.1.6 Risk Beliefs

The actual factors that affect people's level of risk are distinct from their "risk beliefs," which are subjective notions about what signifies danger. The risk beliefs of residents living near a site may also increase the perception of risk associated with a site, adding to people's levels of fear and anxiety. In some situations where experts dismiss the risk at a contaminated site as minimal, residents may nonetheless feel that they are at considerable risk.

The public's risk beliefs are influenced by a number of perceptual cues, including the following:

- Odours emanating from landfills
- Unusual odours or flavours in well water
- Unusual soil or water colouration at the site
- A heavy volume of truck traffic in and out of the site
- Erecting chain-link fences near the site
- Placing warning signs near the site
- On-site testing, especially if conducted by workers wearing protective gear.⁴

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2.2 FEELINGS OF VULNERABILITY AND POWERLESSNESS

Exposure to toxic substances can lead to profound feelings of vulnerability – a loss of all sense of safety and security. It can shatter deeply held beliefs that the world is safe, that the environment won't suddenly become a threat. As one resident of an Ojibwa community affected by mercury poisoning put it, "I don't understand it. I don't understand how the land can turn against us."⁵

This sense of fragility and vulnerability can be worsened when the duration or the source of adversity is unknown. Ultimately, the invisibility of many toxic substances, the absence of clear health solutions and the "lag of time between exposure and the appearance of chronic disease related to exposure" can leave individuals exposed to a contaminated substance with intense feelings of powerlessness and loss of control.⁶

2.3 ANGER

Anger is a characteristic reaction of people who feel weakened by their losses or powerless against a situation. Irritability, hostility, anger and even rage are particularly likely to flare up in the following circumstances:

- Residents feel they are being treated unjustly by government officials, claim adjusters, etc.
- It appears that officials will not keep earlier promises.
- Urgent needs are hampered by bureaucratic entanglements.
- Compensation does not meet expectations.
- The people or organization(s) responsible for the contamination go unpunished.

If the event clearly results from human failure or negligence, the anger may be more intense and persistent.

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2.4 DISTRUST

2.4.1 Loss of Faith in Public Officials

Those affected by contaminated sites are very likely to have lost some or all of their faith and trust in government and other public agents. The task force on the behavioural and mental health effects of the Three Mile Island nuclear incident found that:

“to make matters worse, people who have been sensitized by exposure to a toxic emergency can lose faith not only in the goodwill but in the good sense of those in charge of a dangerous universe. It is not at all obvious that ‘they’ can tell the truth even when they want to, for they do not know what is going on either.”⁷

Where a government or its agency has been involved in the contaminating activities, residents are especially likely to be distrustful of the government's decision-making processes regarding the site. A good example of this problem was seen in 2001 in the Sydney Tar Ponds area of Nova Scotia. Area residents' belief that previous government-led remediation efforts had been mismanaged led to an atmosphere of suspicion, distrust, and fear throughout the community. Local resident and Sierra Club President Elizabeth May expressed the concerns of many Sydney-area people when she questioned the objectivity of a risk assessment report, accusing both the federal and provincial governments of having a “blatant conflict of interest” for owning the sites and also being responsible for their assessment.⁸

2.4.2 Social Distrust

Affected residents may also come to distrust the community at large. Feeling already that they have been let down by the authorities they trusted to protect them, they may fear that when they are the most vulnerable, their community may not be willing or able to provide the support they need.

...social distrust may well be one of the most damaging consequences... The relationship people need with their society is one of care. Part of that care is acknowledging the psychological and social stress caused by these situations of ineradicable uncertainty and potentially disastrous personal threat.⁹

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2.5 GRIEF

Grief usually refers to the emotional process produced by the loss of an individual important in a person's emotional life. However, one can also feel grief at the loss of less concrete elements of one's emotional well-being. People affected by a contaminated site might grieve for the following:

- Loss of health
- Loss of the joy of living, of dreams, or of future endeavours
- Loss of home, of neighbourhood, or of support systems
- Loss of cultural and social life
- Loss of employment or business
- Loss of independence
- Loss of sense of community
- Loss of way of life

Note that a sense of grief and loss is often closely connected to fear. For example, people might fear potential losses, especially those associated with the fear of dying at a young age or of seeing loved ones, especially children, becoming seriously ill or dying.

2.6 GUILT

Survival guilt is a strong and common reaction observed among survivors of a disaster, and similar reactions may be found among people whose family members, friends or neighbours have been adversely affected by a contaminated site.

Area residents may also feel guilty for not moving away from the site, or for not heeding warnings from friends or relatives who suggested they not move to the area, and thereby possibly putting their children's and their own health in jeopardy.

2.7 SENSE OF DEPERSONALIZATION

People living near a contaminated site sometimes feel depersonalized by the process of experts assessing the problem. Some report that dealing with numerous questionnaires or interviews for health impact tests or research leaves them feeling less like human beings than like objects being measured or statistical data points.

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2.8 FRUSTRATION

The slowness of many contaminated site clean-ups can lead to feelings of frustration in affected communities. People feel that the lag between the discovery of a danger and its removal is unreasonable, and resent their inability to do anything about it.

The difficulties of dealing with bureaucratic agencies in matters of clean-up and compensation can also be a source of frustration.

2.9 ISOLATION

A sense of isolation often pervades communities near contaminated sites. People feel that those who have not shared the experience of possible exposure to a toxic substance cannot understand what it is like. They can also often find the entire contaminated site process a distancing one, since it can be lengthy and complicated, and involve several different agencies.

2.10 DEPRESSION

People who live near a contaminated site may, like people traumatized by a natural disaster, experience depression as a result of their losses and the ongoing problems associated with recovery. But while victims of a disaster tend to slowly regain a sense of overall well-being as their homes and neighbourhoods are rebuilt and their stress reactions begin to fade, those who face ongoing exposure to hazardous substances see no resolution to their dilemma. Once the reality and long range health implications of living near a contaminated site sink in, affected residents may experience chronic depression. They may undergo frequent bouts of sadness, withdrawal, disorganization, weariness and frustration. They may lose interest in daily activities or friends, and in some cases turn to substance abuse.

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A contaminated site and the activities associated with its identification, assessment and remediation affect residents not just as individuals but also as members of a larger community. Some of the effects are not direct emotional reactions but issues related to people's economic or cultural lives, or to the interactions within a community – all of which, in turn, can engender stress and emotional reactions. This section outlines some of the more important of these social factors connected with contaminated sites and their remediation.

3.1 ECONOMIC CONCERNS

3.1.1 Costs

The identification, assessment or remediation of a contaminated site can trigger a wide range of costs, which can reduce the well-being of people affected in a number of ways:

- Depreciation of property values and/or avoidance of community or region by tourists because of adverse publicity (e.g., the effect of the SARS outbreak on Toronto);
- Isolation and boycott of goods by neighbours (e.g., farm produce);
- Cost related to liability and compensation issues;
- Costs related to loss of income (e.g., shutdown of an industry discovered to be causing contamination);
- Capital losses (e.g., in the event of community evacuation);
- Temporary accommodation and food expenses;
- Restrictions on agricultural, forestry, fishing, or mining activities, and depreciations in the value of these industries;
- Costs of decontamination or clean-up;
- Impact of clean-up on agricultural practices, food production and use; and
- Costs related to long-term health effects (e.g., cancer, congenital abnormalities).¹⁰

For example, contamination left behind from decades of mining and smelting (gold and silver), processing nuclear waste (to retrieve cobalt) and producing pesticides had a devastating effect on the economy of Deloro, Ontario, in the Moira river watershed of Southeastern Ontario. Property values in Deloro, where residents recall being unable to hang out laundry to dry in the smelting days because of the highly contaminated soot thick in the air, have been adversely affected, and the resulting loss of tax base has meant that access to the library and community centre has been severely reduced. Tourism at Moira Lake has declined, causing even more economic difficulty.¹¹

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Major economic losses, or even the fear of possible major economic losses, can trigger intense psychological reactions. They can shatter peoples' sense of safety and security and provoke deep and enduring damage to their sense of self-worth. Some people may consider their lives ruined.

3.1.2 Problems with Financial Aid and Compensation

Compensation and other financial aid designed to help affected communities can sometimes end up causing further problems; in particular, they can often engender feelings of disappointment and disillusionment.

Residents may feel disillusioned if they are promised compensation and its delivery is delayed or it falls short of expectations.

Those who have received compensation may feel distanced from the wider community if their neighbours envy them, or if they are accused of being ungrateful complainers should they press for further services and compensation.

3.2 COMMUNITY CONFLICTS

The remediation of contaminated sites can be a divisive force, provoking conflict within a community and bringing about feelings of mistrust and apprehensiveness. For example:

- Those who feel that their health and well-being has been affected by the contamination may be pitted against those who report not experiencing any consequences.
- Those who claim they have been contaminated may be stigmatized and discriminated against.

Splinter groups may form and disputes arise around a variety of issues, including the following:

- The severity of the threat or the extent of harm
- The appropriateness of actions such as litigation, compensation, or relocation
- Relations with municipal, provincial, and federal officials
- Sample test results (blood, air, soil, water)
- Claims that a person or group represents the interests of affected parties
- Duration of all stages of the contaminated site process
- Community disruption including breakdown of social networks and impacts on traditional ways of life
- Blame for any stigma that becomes attached to the community

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The Deloro, Ontario contamination site, mentioned above, provides an example of community conflict:

Many community members want the opportunity to relocate if the remediation fails to address their health concerns in a timely manner. Others don't give credence to the possibility of health impacts and want to stop talking about it so that property values will recover.¹²

3.3 CULTURAL CONCERNS

The contamination of a nearby site can be damaging to the cultural life of a community, particularly if its heritage and traditions are connected to the contaminated resource.

For example, Ojibwa communities near the Wobegon River in Northern Ontario, who had depended on fish for both subsistence and income, suffered profound cultural effects when contamination of the lake's ecosystem by methyl mercury resulted in a ban on eating its fish.¹³ Similarly, contaminated sites can severely disrupt rural communities where use of the water (for swimming and fishing) or of the land (for hunting, trapping, berry and mushroom picking, camping, etc.) is an important part of the culture and economy.

3.4 COMMUNITY RELOCATION

Relocation is perhaps the most extreme case of a community being disrupted by contaminated site identification, assessment and remediation. If this rare measure becomes necessary, site managers should expect the community to experience an even greater degree of psychological and social stress.

It's also important to keep in mind that psychosocial concerns do not end with the move. Although the primary stressor is no longer a direct threat at that point, the effects of having been exposed to hazardous substances in the first place and the problems-in-living associated with the move will continue to be sources of stress for the people involved. Indeed, the breakup of a community, with the accompanying disruptions to the community fabric, way of life and culture, may trigger greater psychosocial effects than the contamination itself.

Site managers should make addressing psychosocial concerns an integral part of the overall management plan for a contaminated site. These concerns are best addressed, as are the other elements of site identification, assessment and remediation, through a community capacity approach – i.e., one that builds on a community's competence, using its own strengths and resources as the first step to healing and resolving problems. Empowering residents to have real involvement in, and even control of, all stages of the site management process can, in and of itself, help combat the feelings of helplessness and loss of control that life near a contaminated site can engender. It can increase community members' sense of safety, confidence, competence and trust. Informed, empowered residents also are better able to understand risk factors and therefore suffer less anxiety from subjective risk perception.

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On the other hand, remediation projects undertaken without community involvement can provoke intense and prolonged anger and distrust in a community, not only jeopardizing the successful implementation of the project but also creating prolonged distress among residents.

This section provides strategies for site managers who need to develop a public involvement plan that will utilize a community capacity approach to addressing the psychosocial concerns of the affected community. For further guidelines on how to develop a public involvement plan, see Health Canada's guidance document, *Improving Stakeholder Relationships: Public Involvement and Contaminated Sites* (Section 3: *Preparing a public involvement plan*).

4.1 ANTICIPATE, PLAN AND CONSULT

Early in the planning process, get to know the community – its history, geography, culture, citizens, values, and concerns, as well as the specifics of the contamination. Anticipate as much as possible the degree and kinds of psychosocial stress reactions this particular community is likely to experience. This background research is especially important if the residents were not aware that they were living near a contaminated site.

Ideally, thoughtful anticipation and careful planning can allow you to intervene with community coping mechanisms as early as possible, thus reducing physical and psychological symptoms caused by stress related to the contamination. Consult and involve local psychosocial organizations, agencies or groups that could assist in tasks such as the following:

- Identifying and assessing important psychosocial factors affecting residents
- Helping residents voice and present their concerns
- Setting up appropriate psychosocial educational support activities for all age groups

During the planning process, consult with community members from the outset. Go to them first, before they come to you. Treat them as true partners, respecting their values, priorities and knowledge of the community. Share ownership, responsibility, work and credit for the project with them.

This consultation process must be visible – ensure that the community knows about it and receives regular updates. It must be inclusive and accessible, involving all relevant parties. And it must continue through all parts of the remediation planning process, including the following:

- Setting goals
- Evaluating options
- Setting priorities
- Evaluating different risk management strategies
- Making final decisions ¹⁴

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For example, the Giant Mine Project Team responsible for the clean up of the Giant Mine site near Yellowknife, Northwest Territories, learned the importance of involving the community at the very early stages of the project. The team had good intentions: public information meetings were held, community groups were invited to review and discuss options for remediating the site, and a Community Liaison Committee was created. However, the initial presentations were made by hired consultants, and the Community Liaison Committee was established fairly late in the process. This led to the perception in the community that it was not involved enough in the setting of priorities for the remediation. Involving the community earlier in the process might have produced the same results in the end, but with more buy-in and trust from local residents. ¹⁵

In another example, Nexen Canada did involve the local community immediately after it was discovered that a sour gas well drilled by a predecessor company 40 years earlier had not been cleaned up properly:

We began by meeting with affected residents and stakeholders and involving them in the decision-making process for the clean up. We provided options for remediation and then listened to their concerns and suggestions. Following months of dialogue, consultation, and detailed engineering, Nexen developed a management plan with the residents, the regional health authority, regulators, and municipal leaders to remove the contamination. ¹⁶

As a result of this diligent and early consultation in the planning process, the clean-up process has taken place in an atmosphere of trust and co-operation with the community, and with almost no media attention.

4.2 ENSURE TRANSPARENCY

Past psychosocial experiences have demonstrated that people respond rationally when confronted with a threat. What they expect from public officials is to be told the following things, in plain language:

- What the danger is
- What possible effects the danger may have on their physical and mental well-being
- What measures they can take to protect themselves

A public involvement plan should strive to meet these reasonable expectations. Being persistent, visible and sincere in your interactions, as well as forthcoming with information and available to answer questions, will go a long way toward earning the trust and respect of community members.

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It is important to communicate information not only just completely and honestly, but clearly. Even when environmental specialists and government officials provide complete information, the scientific and bureaucratic terms, jargon and acronyms they often use to communicate their findings or conclusions about a contaminated site can be confusing to the average citizen. Worse, the use of unnecessarily complex or abstract terms can lead to suspicion and distrust, as citizens may feel that the intent is not the stated one but some other purpose, such as the following:

- To defuse a situation
- To placate a public
- To “make very dangerous things sound harmless”
- To mask hazards
- To “co-opt people”¹⁷

The use of plain language is a sign of respect, of taking people’s concerns to heart and of wanting to foster a collaborative and informed partnership. Where some unfamiliar terms are useful or necessary for accuracy, prepare a glossary that explains them in plain language, and ensure it is made widely available.

Consider hiring an independent (non-government-connected) environmental specialist to help the community in understanding the scientific findings and conclusions.

The Nexen experience confirmed that “...being accessible and assisting with information about the project helps to relieve some of the stresses and confusion that can exist with a major project.”¹⁸

4.3 RECOGNIZE AND RESPECT LOCAL EXPERTISE

A public involvement plan should not only involve the public, but should show respect for the community’s competence. Recognize community members as experts on their own community and therefore the best resources for designing and adapting an intervention to fit their community. Trust that the residents can best determine how to approach challenges such as stress prevention and education.

Strive to make advisory groups as truly inclusive and representative as possible. Members of the public often express concern that members of such groups are hand-picked by government or regulatory agencies. It is important, therefore, that citizens – not just the public as represented by a multiplicity of stakeholders’ associations, lobbyists and interest groups – are involved in policy formulation, priority setting and program delivery.

Be prepared to provide the necessary level of funds for the project. Community-driven processes need the strong policy support and resource commitment of all levels of government, including adequate funding for administrative and technical support. Hire local people to lead the process and participate in all aspects.

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Be prepared for a community capacity approach to be slow. It is collaborative and deliberate, requiring the commitment of time and attention.

Recognize, too, that this approach means that a group's decisions and recommendations may not be supportive of government strategies or policies. The public may reject or wish to modify a contaminated site plan favoured by government agencies. Where there are limits to what can be changed as a result of public input, make these limits, and the reasons for them, clear from the outset.

4.4 FACILITATE COMMUNICATION WITHIN THE COMMUNITY

Ensure your public involvement plan includes provision for communication not just between residents and authorities, but also among residents themselves. Being able to share their reactions with others facing the same difficulties is helpful for many residents of contaminated sites as they seek ways to restore meaning and trust to their lives. The knowledge that such feelings occur with most people provides a sense of acceptance.

Community newsletters can be a useful tool for helping community members share their experiences amongst themselves and with others. They can also help defuse anger and frustration in several ways:

- Allowing people to voice their concerns about a project
- Offering information on various issues
- Sharing information on health care and psychosocial measures
- Providing government officials with an opportunity to explain their viewpoint

Community newsletter initiatives were successful in the Hagersville Tire Fire and the Maple Ridge, BC, town dump fire. Provincial government agencies provided the funding for the newsletters, and community members wrote and published the newsletters.

4.5 FOCUS ON EDUCATION

Educational outreach is critical to a community capacity approach, and should be a central part of any public involvement plan. It has a number of benefits:

- Encouraging interest in the project
- Increasing people's abilities to communicate with one another
- Helping keep the public involved in the decision-making process
- Helping all affected parties set realistic goals for the management of the project
- Helping people understand not just the science, but the economics and the physical, chemical, and structural limitations of the remediation project

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Well-planned, targeted educational outreach activities can help prevent or minimize adverse psychosocial effects. Design activities with the following aims:

- To normalize and validate people's stressful feelings
- To let people know that they have the knowledge and experience to cope with the stress triggered by the event
- To reassure people about their safety and explain what measures are being taken to protect them
- To reach out to all age groups – children, adolescents, adults and the elderly – and to special need groups

For example, have local social service and health agencies prepare educational pamphlets, brochures, colouring books for children, etc. on the psychosocial effects associated with all aspects of the contamination – exposure, risk, diagnosis and disease, as well as associated problems-in-living – and on ways that they can deal with their reactions.

Organize community outreach visits – another useful preventive educational measure. Personal visits of a friendly, non-threatening nature can be an excellent way of helping people cope with the emotional and social effects provoked by the clean-up of a contaminated site. On each visit, outreach workers should do the following:

- Assess informally the situation and needs of the individual, family, or special group being visited
- Inform them of community services available to assist them
- Offer advice on how to gain access to services and benefits
- Provide educational material on topics such as health care and stress management

In some situations, there may be no interest in grass-roots participation. In such cases, an outreach education program may have to be created to inform the public about the health risks posed by a site or the psychosocial implications that remediation work may have for a community.

Keep in mind that individual residents are not the only parties that need to be educated. For example, regulatory agencies, municipal governments and other stakeholders such as health care providers may also need education.

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4.6 BE SPECIFIC AND FLEXIBLE

Communities generally resent formalized, centralized approaches. They want programs or services to be supportive and informal, and accessible. Regular processes and routines are often seen as sources of irritation and delay. Creating fast-track processes or allowing certain exemptions which will help people affected by the contaminated site process to cut through “red tape” will go a long way towards reducing community frustration and help to build trust.

People whose lives have been disrupted want programs and services that are set up exclusively for them. They do not want to be serviced as part of regular social services, mental health or public health systems. In their mind, the setting up of programs and services to deal exclusively with the psychosocial effects on individuals, families and communities exposed to a contaminated site is a sign that the government takes their health and social needs seriously.

Design your public involvement plan to be as adaptable as possible. Be ready to adjust the services you provide as you learn more about the community’s needs, or as those needs change. Feelings of anxiety and mistrust are eased if people see that helpers are truly responding to their requirements, not just applying a standard formula to their circumstances.

Finally, incorporate a continuous evaluation process into the public involvement plan, so that it can be adjusted as time goes on and circumstances change. Flexibility and responsiveness makes for the most effective use of resources and leads to the best results.

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As you develop a full public involvement plan for a contaminated site, keep in mind this overview of psychosocial factors. Remember that the various factors can reinforce each other, and that psychological and social aspects of people’s lives are as important as the physical ones.

Every situation and every community is unique. You will need to develop a plan that fits the particular community and site in question. The recommendations given here provide a basic framework for addressing some crucial factors using the only approach that has been proven to work: enhancing the community’s capacity to address the issues that can impact on the health and well-being of its members.

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6 Appendix

List of Psychosocial Factors Categorized by Type of Reaction

Common Physical Reactions	Common Cognitive Reactions	Common Emotional Reactions	Common Behavioural Reactions
Increased blood pressure	Confusion	Anxiety	Distrust
Risk of heart attack	Disorientation	Fear	Withdrawal
Lowering of immune system response (increasing severity of pre-existing illness)	Indecision	Anger	Conflict
Digestive problems	Difficulty concentrating solving problems	Irritability	Irritability
Chronic fatigue	Memory problems	Resentment	Change in communication modes
Difficulty eating, sleeping	Worry	Guilt	Excessive vigilance over one's environment
	Self-blame	Feelings of helplessness hopelessness, despair	Loss of hope for the future
	Inability to stop thinking about contamination problem	Feelings of being overwhelmed	Increase in alcohol or drug use
		Loss of sense of safety, security, control	
		Sadness	
		Depression	

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