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The Swiss experience in the health promotion and prevention at subnational level

G. Domenighetti and F. Paccaud

1. Introduction

Switzerland is characterized by a largely decentralized administration and political system, particularly in the area of health services where responsibility for organization, planning and administration is the concern of the cantonal governments. The federal authorities are restricted to the control of communicable diseases (e.g. AIDS), the regulation of drugs and other toxic substances, foodstuffs and radiation protection, as well as the laws governing certain professions in the health sector.

Thus, it is only at a cantonal level that it is possible to formulate plans for the attainment of the objectives of the WHO programme, 'Health for All in the year 2000'. In fact, in the beginning of 1980 a federal law on preventive care was proposed but rejected by almost all the cantons who saw it as a threat to their autonomy and sovereignty. A few nationwide initiatives in prevention have since been proposed and implemented by the cantons, local authorities or other organizations working at a local level, but these recommendations or the technical and scientific equipment made available have no legal standing[1]. It is under pressure from three cantons (Vaud, Bern, Ticino) that the idea for a Swiss Foundation for Preventive Care has developed: the aim being to implement, finance and evaluate the promotion of health at a national, regional and local level, thus assuring a more just distribution of preventive medicine throughout the Confederation.

However, if this federation of 26 small, strongly independent states impedes the adoption of a national strategy for preventive medicine, this institutional framework also allows for a more direct participation by the people and for greater regional flexibility, thus creating schemes most suited to local conditions. This aspect of regionalization, notably cultural, for prophylactic programmes is very important. Another favourable element to consider is a certain 'competitiveness' between cantons allowing each of them to profit from the policies, strategies and

legislation which have proved successful elsewhere – this dynamism, unique to the Swiss Confederation, is certainly an important factor.

2. Preventive measures in Switzerland

The first experimental programme of preventive care in the community in Switzerland has been the national research programme No. 1A on the prevention of cardiovascular diseases. This programme was undertaken between 1976 – 82 in five towns representing the three different linguistic regions of Switzerland. The two towns chosen as intervention areas (Aarau and Nyon) have since continued the programme autonomously. This experimental programme has given rise to other schemes including the launching in 1987 of a health promotion campaign at selected factories in the canton of Berne.

Other more sporadic measures are organized by various health leagues (Swiss League against Cancer and other cantonal cancer societies, League against Rheumatic Diseases, etc.), or other associations and private institutions (Swiss Heart Society, Swiss Association of Non-Smokers, Swiss Institute for the Prevention of Alcoholism, Swiss Institute for the Prevention of Road Accidents, etc.), by the public assurance company (Swiss National Accident Assurance Co.) and by cantonal and local authorities, notably in the area of school medical services. The activities in the different sectors are not coordinated and rarely evaluated. They come up against language and cultural barriers, especially the latter, which characterize the different cantons.

A remarkable example of nationwide action is the campaign against AIDS, conducted since 1985 by the federal public health department. Although other national campaigns against infectious diseases (poliomyelitis, vaccination against measles, mumps and German measles) have taken place, the campaign against AIDS has benefited from a considerable gathering together of professional resources and with the mobilization of all types of media has succeeded in covering the entire Confederation territory (by delegating part of the effort to local and/or private organizations). Also, the efficacity of the campaign is constantly being evaluated by a team independent of the federal public health department[3].

3. Primary prevention programme against cardiovascular disease in the canton of Tessin[2]

For the first time in Switzerland the canton of Tessin launched a programme of information aimed at warning the population for the risk factors for degenerative non-transmissible diseases[4]. Presented below is a description of the part of the programme concerning cardiovascular disease; since 1988 the programme includes cancer.

The conclusions of the national research programme No 1A mentioned above

concerning the prevention of cardiovascular diseases have formed the basis of the Tessin programme. One of the important conclusions of the experimental programme was that the population targeted by the prevention campaigns was willing to alter its behaviour for the sake of improved health, and that this change in behaviour had a discernible effect on the distribution of risk factors for cardiovascular diseases within the population. The Tessin programme was also inspired by the experiences and conclusions acquired by other well-known programmes abroad[5-8], notably in Finland and the U.S.A.

Another stimulus were the two epidemiology studies[9, 10] which showed an above average mortality rate for cardiovascular disease in the Tessin: for 10 years this mortality rate had been higher than in other linguistic regions of Switzerland, especially in the active male population (25-64 years). The results of these studies were widely publicized at the beginning of 1984 and constituted the incentive necessary for the approval of a special credit for the programme of preventive care voted by the Tessin government.

4. Objectives of the Tessin programme

The objectives pursued until now may be resumed as follows:

1. *Hypertension:* each inhabitant of the canton should be aware of his blood pressure as well as the consequences of prolonged high pressure as established by WHO standards. He must also understand the importance of regular checks for high blood pressure and know that increases in values only become evident as the result of regular checks.

2. *Tobacco consumption:* the campaign aims at promoting a positive image of the non-smoker and puts emphasis on the respect for his rights (with regard to passive smoking).

3. *Fight against sedentary habits:* each inhabitant must know the benefit of regular physical exercise; the campaign suggests the practice of a physical activity, which gives a pulse rate of 180 per minute less the person's age, for 20 minutes three times a week.

4. *Malnutrition by excess:* each inhabitant must possess the necessary knowledge to make rational choices in the matter of diet, especially be able to recognize the foodstuffs that increase the risk of cardiovascular disease and those that have a protecting effect; the messages are aimed specifically at promoting a diet poor in saturated fats (animal fats) and rich in fibre (fruit, vegetables, if possible raw). Everyone should know also that a cholesterol level above 6.7 mmol/liter (260 mg %) corresponds to a high risk, and a level at the limit (between 5.2 and 6.7 mmol/liter, between 200 and 260 mg %) should be checked regularly, especially when other risk factors are present.

5. Strategy of the prevention campaign

For an entire population to accept new behavioural patterns one must first provide information showing the changes to be desirable. The information should be presented in a positive manner and should not cause feelings of guilt; the changes proposed should also respect the autonomy and liberty of the individual. Equally the changes must be financially supportable by the community with a minimum of undesirable side-effects. Finally the campaign needs to have the support of community officials and benefit from good general conditions (employment, housing, environment, etc.), all of which will facilitate its implementation.

In order to achieve this, a first step is the mobilization and collaboration of professionals in health care, communications, the media, social leaders and public and private institutions (all public services, local communities, large shops, billboard companies, the post office, groups of restaurateurs, etc.) is indispensable for creating a continuous and stimulating climate of interest. Obviously this is not possible unless the campaign enjoys a previously established social and political consensus.

It is necessary to mention here an important particularity of the Ticino programme, namely the abundant use of the massmedia. These play a very important role in the Tessin where for a population of 270,000 there are seven daily newspapers, one three-times-a-week and several weekly publications. Furthermore the Ticino has two public radio stations and a television channel in Italian transmitted nationally. This impressive media concentration, perhaps unique in the world for such a small geographical area, has been fully integrated into the prevention campaign.

The canton has also produced forty odd television commercials of around 30 – 60 seconds each, which are regularly shown on television and in the main cinemas of the canton. By this action alone the campaign messages reach practically the entire population fairly constantly throughout the year.

The first symptoms of a heart attack (how to recognize them and what to do) have also been widely publicized in a leaflet written in simple language. This scheme is currently being evaluated.

A second element of the campaign strategy has been to provide the population with concrete opportunities to realize the suggested behavioural modifications. Thus, a series of measures has been introduced such as: free blood pressure checks by all the chemists of the canton, cholesterol level controls, the organization of mass walks and 'Campaign Fêtes'. A 'Healthy Dishes' scheme has been introduced in restaurants, a recipe book has been published and a pocket calculator distributed which calculates the calorific, aminoacid and cholesterol contents of principal foodstuffs. Evening courses in dietetics have been organized and recommendations compiled for modifying school meals etc.[12]

In addition to these direct measures set up and administered by the State, it is important to underline that the campaign has also had a snowball effect, with several associations themselves agreeing, with financial aid from the State, to organize prevention and health promotion schemes. After four years of the campaign, each Tessinois has theoretically been reached by on average, 100 'preventive' messages and has received four information leaflets of around 50 pages at his home. One Tessinois in 25 has *bought* a book of recipes on 'Healthy Dishes' and one in five possesses a pocket calculator to enable him or her to be better informed on the content in calories, fats and cholesterol of each foodstuff.

6. Evaluation of the programme

Since the beginning, evaluation of the campaign's impact has been included in the programme. A network of statistical indicators has been set up to permit continuous evaluation of the acceptability of preventive measures, acquirement of new knowledge, behavioural changes, the evolution of cardiovascular disease risk factors, morbidity and mortality. Regular opinion polls and enquiries have been made specifically to show clearly the acceptability of information messages, propositions and activities of the programme.

In 1988, four years after the start of the programme, 82% of the Ticino population knew about the prevention programme and 70% of the people questioned said they had 'actively' taken part in some initiative or other. 85% of Tessinois are in favour of television commercials on prevention being shown daily, 71% want the State to do more in the fight against smoking and 62% feel the State should become more involved in dietary matters. An increase in the credit voted by the cantonal parliament for financing the prevention programme was favoured by 79% and 87% think that the Swiss Italian television channel should make one minute of broadcasting time available each day for a public service announcement promoting health. These first results together with the percentage of participation in various activities give a positive view of the acceptability and degree of diffusion of the cantonal programme of health promotion.

In 1988 only *subjective* findings were available on modifications to risk-causing behaviour since the beginning of the programme. An opinion poll taken in February 1988 gave 42% of inhabitants in Ticino as saying that they had modified their eating habits during the preceding two years with the aim of improving their health (Switzerland: 26%). 30% of these same people recognized that the changes had been helped by the prevention campaign. The influence of the programme on physical activity seems to have been positive too; about 20% of Tessinois report being more active following suggestions made in the programme. As for smoking, here we have more objective findings, in effect, the number of smokers in the canton's population was 31% in 1988, whereas in 1981 it was 42%. In the last 12 months before 1988, 43% of smokers said they had cut down their consumption and a few confirmed having given up completely. Among those who had modified their smoking habits positively, 23% were of the

opinion that the campaign of information and prevention had contributed to their decision.

A more objective measure of these tendencies will only be possible when the results of the second MONICA enquiry are known. This project will show whether the good intentions manifested until now have become reality and, more precisely, if the Tessinois really have lowered their tobacco consumption and cholesterol levels, are more physically active, do have their blood pressure measured regularly and, if necessary, better controlled and if the incidence of cardiovascular disease and its related mortality rate have diminished. The efficacy of this programme will be measured as the project MONICA plans to analyze the evolution of cardiovascular risk factors during 10 years in *two distinct groups* of the Swiss population. On one side, the canton of Tessin where an intensive programme of health promotion destined to cover the entire population is being conducted and, on the other, two cantons of the Swiss Romande (Vaud and Fribourg) where at the moment there is no such programme.

A first result of outcome which merits being evaluated shows, for the period 1984-87, a decrease in the overall cardiovascular mortality rate for the canton of Tessin. Corrected for age, this gives a decrease of 22.4% for men and of 21.2% for women as compared with the rates for the years 1982-83. During the same period the rates for the whole of Switzerland, standardized and corrected for age, decreased by 13.1% and 17.2% respectively (Figures 1 and 2).

An enquiry into the risk factors in the populations of the three linguistic regions of Switzerland planned for January 1989 will allow a first evaluation to be made of this encouraging result.

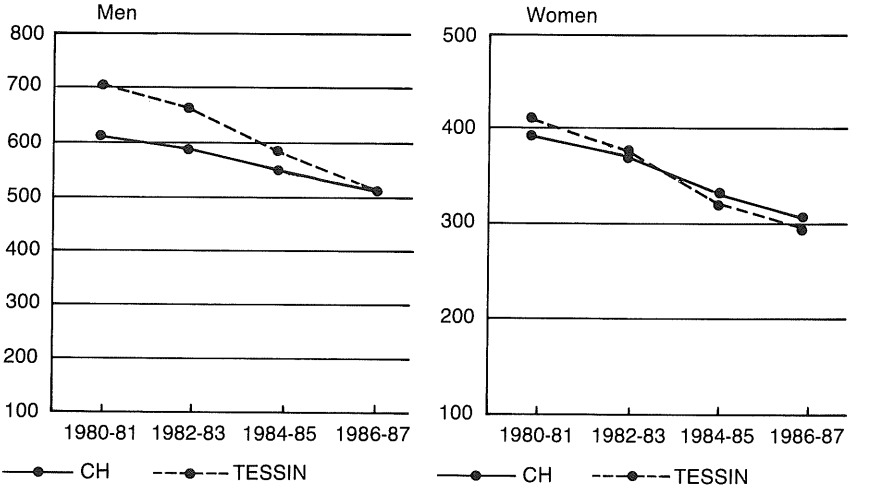

Figure 1. Cardiovascular standardized mortality rates (ICD 40-448) × 1000'000 inhabitants.

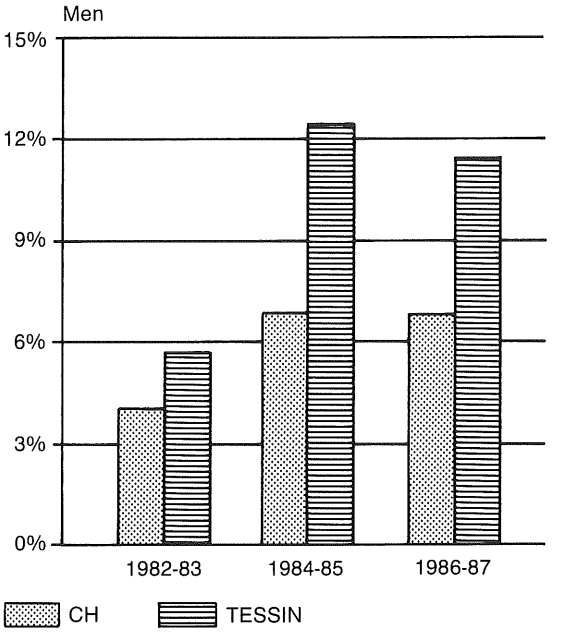

Figure 2. Percentage decrease in cardiovascular mortality compared to the two preceding years.

7. The medical profession's perception of the programme

In 1988, after four years of the prevention programme, we analyzed the attitude of independently practising doctors in the Tessin. The results show that the cantonal programme is well-known (93% of doctors / 82% population) and generally judged positively (very useful/useful 82%) by the medical profession. However, there does seem to be some fear concerning an *enlargement* of the scheme (doctors: 53% / population: 78% yes) particularly among doctors above 45 years (yes 43%).

The television commercials against smoking are seen as useful by 81% of doctors (population 87%); also judged as positively useful were those against AIDS, in similar proportions (78% / 96%).

The proposition to have one minute per day allotted to a public service announcement on prevention by the Swiss Italian television was welcomed by 61% of doctors and almost unanimously (87%) by the population.

Prevention 'attitudes' of doctors practising independently were also evaluated. 92% of junior hospital doctors and 84% of general practitioners (GPs) always ask if their patients smoke and in 63% of cases (internists) and 58% (GPs) they

advise the patient to stop. This proportion depends significantly on the smoking habits of the doctor. In effect, only 38% of doctors who smoke always advise patients to stop against 60% of non-smokers.

20% of internists and of GPs declare that they have already begun medication for patients with a total cholesterol level less than 260 mg/dl. and around 30% of all doctors (internists and GPs) make no dietary suggestions for total cholesterol levels between 201 and 260 mg/dl.

Blood pressure is always/often measured for each patient / visit by 95% of GPs and by 92% of internists.

These findings allow for a better definition and setting of the role doctors can play in a programme of health promotion aimed at warning an entire population of the risk factors of chronic degenerative diseases in general, and cardiovascular ones in particular. These first results show a good knowledge of the programme and a positive judgement overall, but also a certain fear concerning extension of a state-run scheme. The findings also show a great willingness to participate in prevention on the part of the medical profession, above all by GPs and junior hospital doctors, who should have made available to them the scientific and practical equipment necessary for creating or reinforcing health promotion in the community.

The *medical profession* has, therefore, judged preventive action as positive and has even accepted without argument that pharmacists may measure blood pressure in their shops. GPs have recently asked for help in publishing a 'Prevention Manual' aimed at standardizing, on the basis of a consensus, the procedures for prevention in the private practice.

8. Other participants' perception of the programme

None of the other participants in the health care area have shown any opposition to this community programme. The fact of having, as scientific consultant of the programme, a University institute of social and preventive medicine from outside the canton, and of having integrated, since the beginning of the campaign, several 'eminent' politically active doctors from the canton who have been given roles in 'scientific commissions' of evaluation (as well as having given them the possibility of expressing themselves regularly in the media on aspects of the campaign), has proved very positive. Notably it has served to avert any suspicion or fear that the programme is a first step towards the nationalization or socialization of medicine.

Pharmacists have actively collaborated in the campaign, notably by offering free blood pressure checks and distributing selling material produced within the framework of the programme (recipe book 'Healthy Dishes', pocket calculator for foodstuffs, etc.).

Another even more active role for pharmacists as 'prevention counsellors' is

being studied, given there are no psychological obstacles, material and spatial, between the pharmacist and the public.

Voluntary Associations and the *Association of Nurses* have made themselves available unasked for measuring blood pressure and cholesterol levels (with automatic dry-chemical apparatus) and have manned stands on prevention with facilities for blood pressure and cholesterol level checks at cantonal fairs and exhibitions.

Sickness Funds (mutual insurance companies) have recently put the themes of the cardiovascular campaign in their literature for policy-holders and a commission has been set up to formulate an information campaign on the subject of 'clear access' to treatment, especially optional surgical treatment. The latter theme is also part of a special information programme in the Tessin.

The *Hospital Service* has been the most noticeable absentee from the prevention programme, except for the personal participation of several senior doctors, 'leaders' in the specialities most touched by the themes of the campaign who have given their support by writing informative articles for the popular press.

In effect, the hospitals' role, traditionally one of more advanced care, does not at the present time in Switzerland seem to lend itself to promoting primary health care, though potentially, and notably in the area of secondary prevention and health education of hospitalized patients, its role could be essential.

9. Development prospects

Until 1988 the programme in the Tessin has been directed essentially towards the struggle against cardiovascular disease risk factors. Since 1988 the programme has been enlarged to cover the risk factors of other chronic degenerative non-transmissible conditions, notably cancers. One should note that the risk factors against which action has been directed are, with a few exceptions, also those for most cancers.

It is within this framework that one tries to promote a diet richer in fibre, vitamins and trace elements of vegetable origin, in particular by consuming foods such as carrots, cabbage, cauliflower, oranges etc. which according to numerous studies undertaken, seem to have a 'protecting effect' against the appearance of certain types of tumour[13, 14].

In the future an increase is foreseen in the collaboration with other public services, notably State education. From now on modifications in the meals given to pupils in all school canteens is proposed, with the object of giving a new food 'culture' to cooks, pupils and their parents.

One of the principal problems facing the continuation of the public health promotion programme is the need to find new, efficacious ways to promote the same

'behaviour'. This requires constant creativity and imagination. Without this the population runs the risk of becoming used to and no longer heeding the campaign messages, which could lead to the programme becoming ineffective. The results of polls taken so far show that the population's interest is still very high which gives the political consensus necessary for the continuation of this community programme.

10. Conclusions

The fact of having conducted this programme of prevention destined for an entire population at a regional level has been, in our opinion, an essential condition for the acceptance of the messages and the active participation of the people. In effect the Tessin, the only canton of the Swiss Confederation with the Italian language and culture, would have had difficulty to accept health promotion messages which concern habits and behaviour strongly tied to the Latin tradition, if these were based on a Germanic culture.

The heavy media concentration at a regional level has allowed the easy 'passage' of campaign messages; the snowball effect attributable to local sub-national 'leaders' has also been of great importance.

Sustained by the circumstance of the canton's 'minority' status for language and culture, local creativity has been amply stimulated.

Not having a university on its territory, the Tessin was free to choose a university partner as scientific consultant to the programme; a partner with real competence in the field.

Having a television production centre in the canton (which broadcasts nationwide) has during the past four years allowed commercials on prevention to be shown for the first time in Switzerland. This idea has been copied by the French and German speaking cantons which in turn is leading to a convention for the diffusion of health promotion commercials on the three Swiss television channels.

The Tessin programme has certainly contributed to the steps taken by three Swiss cantons, (Tessin, Vaud, Berne) of different languages and cultures, to set up the Swiss Foundation of Prevention, as well as a programme of guidelines for the supervision of the population's health. These two initiatives, which at the present time seem to enjoy a large consensus in the country, should spread to the other cantons, thus ensuring a better 'fair distribution' of preventive measures at a national level.

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Contents

List of authors

Editors

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prof. dr. A. van der Werff,	Consultant for health policy, organization and information Director Van der Werff Consult B.V. Woubrugge, The Netherlands

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dr. B. Montaville,	Medical Inspector of Health Directorate General of Health Ministry of Solidarity, Health and Social Protection Paris, France
professor F. Paccaud,	Director, Institute of Social and Preventive Medicine University of Lausanne Lausanne, Switzerland
professor A. Prims,	Professor at the Faculty of Medicine of the University of Leuven and of Louvain Leuven, Belgium
R.F. Schreuder, LL.M.,	Chief strategic health planning Staff Bureau Health Policy Development Directorate General of Health Ministry of Health, Welfare and Cultural Affairs Secretary of the Steering Committee on Future Health Scenarios Rijswijk, The Netherlands
dr. H. Stein,	Health Policy Officer Federal Ministry of Youth, Family Affairs, Women and Health Bonn, Federal Republic of Germany
dr. R. Süssmuth,	Former Minister of Youth, Family Affairs, Women and Health President of the Parliament of the Federal Republic of Germany Bonn, Federal Republic of Germany
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