THE VALUE OF COUNTY PUBLIC HEALTH CAPACITY BUILDING – TWELVE YEARS OF THE *HEALTH-PLAN FOR IT* PROGRAM IN CROATIA

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The aim of this study was to assess the value of the *"Health-Plan for It"* Program for the capacity of Croatian counties to plan health and implement services based on locally recognized health needs. From 2002 to 2008, the county health teams formed in twenty Croatian counties passed the first set of training modules. First assessment was conducted in 2006. Based on assessment results, in 2008-2009 a new set of training modules was organized and attended by six counties. In second assessment conducted in 2012, three instruments were applied: Local Public Health Practice Performance Measures Instrument and Procedure Chart as self-reporting instruments, and tutorial notes assembled/analyzed by the Faculty. All 13 county health teams that participated in second assessment showed an increase in the 2012 score compared to 0-point. The score change showed statistical significance on both the overall core public health functions and on any of its components (assessment, policy development, assurance). All counties showed improvement in assessment and policy development functions. The assurance function was improved in counties that attended the second set of training modules. The Procedure Charts showed that all counties had developed their own health profiles and health plans, with prioritized health needs and identified actions to address them. Like the first evaluation workshop in 2006, results of the second evaluation workshops in 2012 showed that the Program increased the counties' public health capacity. Two of the counties that had enrolled late in the Program (2007/2008) achieved much better results than 'older' counties, showing that the time spent in the Program was not a key factor contributing to local project success. Different levels of achievement due to 'institutional or personal capacity to change', reported by other authors, are in line with our findings that individual county success in the Program depended on the team composition and the level of (regional) political stability. In conclusion, the program showed improvement of all core public health functions in all counties. Assurance function showed generally a higher change in counties that had passed both sets of modules. The counties' capacity for change differed and the Program was not equally efficient in all of them. The differences in county achievements could be explained by stability of political support at the county level, team composition, and commitment of the team leader.

Key words: counties, public health capacity building, decentralization

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INTRODUCTION

Advantages and disadvantages of centralized *versus* decentralized model of health care planning and provision have been discussed for decades (1-5), usually when the policy cycle is completed. Decision on how the health care resources are going to be managed and planned is in the hands of national policymakers (6-9). In the preparation of the national health care reform, politicians are those that lead and have to explain the expected benefits of the path they have chosen (7). The role of academia is usually passive, i.e. reduced to

evaluation of the impact of the reform when it is (or not) implemented (8,9). In this paper, we will describe the case of Croatia in which the Faculty of the Andrija Štampar School of Public Health, School of Medicine, University of Zagreb has been actively involved in the decentralization process in Croatia since its beginning in 2001 (10).

During 26 years of its independence, Republic of Croatia has applied both models of health care planning and provision – centralized, during and after the Homeland War (the 1990s), and decentralized since 2001 (6-8). Although 20 counties and the City of Zagreb were given legal responsibility for health sector governance in 1993, and the majority of Croatian counties had established their own executive and administrative structures by 1994, decentralization became the Croatian government's priority in 2000 (10). In 2001, the Croatian Ministry of Health accepted the Andrija Štampar School of Public Health (the School) initiative to develop, in cooperation with the Centers for Disease Control and Prevention (CDC), Atlanta, Sustainable Management Development Program (SMDP), the "learning by doing" training program that would increase county level public health and managerial capacities (10) before the government legally formalized the counties' obligation to plan for health and organize the provision of primary and secondary level health care services.

Proposed by academia, the Health-Plan for It County Public Health Capacity Building Program (the Program) was reviewed and finalized with the contribution of the Croatian Ministry of Health and the counties. The Program aimed through joint education to connect the main health stakeholders (political, executive, professional and community representatives) and increase county-level capacities to conduct participative health need assessments, to plan for health and assure provision of the type and quality of services that are better tailored to the local health needs (10,11).

Due to the political changes (national elections at the end of 2003), the Program had to continue as self-funded, within the framework of the Croatian Healthy Cities Network since 2004. Nevertheless, with the Croatian Ministry of Health financial support, by the mid-2004, fifteen out of twenty Croatian counties had completed their training (2002-2004) (12). Due to the lack of funding, in the remaining five counties training had to be postponed till 2007, so they completed their education by the end of 2008.

The results from the first Program assessment done in 2006 (12) encouraged academia to continue and develop the second phase training package. The skills adopted through the first "training" phase helped the counties develop the county health documents but did not prepare them for the challenges of county health plan implementation. Therefore, the second round of the Program training modules aimed to improve the counties' strategic management and implementation skills.

In 2008, the Croatian Parliament adopted the new health care act that formalized the counties' obligation to plan for health and organize the provision of primary and secondary level health care services (13).

The aim of this paper is to assess the value of the *Health -Plan for It* Program and its impact on the counties' capacity to plan for health and implement services based on locally recognized health needs.

MATERIALS AND METHODS

Participants

In the first training phase, each county health team had nine to eleven members in training, including two representatives of political (elected county officials), one representative of executive (county departments of health and social welfare) and three to four representatives of professional (county institutes of public health, hospitals, health centers, social welfare centers) components, and three were community representatives (nongovernmental organizations (NGOs) and media) (10,12). From March 2002 till the end of 2008, every county in Croatia was provided with the training opportunity (Participants, Fig. 1). County health teams entered the training, three at the time: Dubrovnik-Neretva (DN), Istria (IS) and Varaždin (VZ) Counties in March 2002; Bjelovar-Bilogora (BB), Krapina-Zagorje (KZ) and Vukovar-Srijem (VS) Counties in October 2002; Osijek-Baranja (OB), Primorje-Gorski Kotar (PG) and Zagreb (ZG) Counties in February 2003; Sisak-Moslavina (SM), Split-Dalmatia (SD) and Virovitica-Podravina (VP) Counties in September 2003; Lika-Senj (LS), Međimurje (ME) and Brod-Posavina (BP) Counties in April 2004; Šibenik-Knin (SK), Zadar (ZD) and Požega-Slavonia (PS) Counties in January 2007; and Koprivnica-Križevci (KK) and Karlovac (KA) Counties in September 2008. The City of Zagreb that has a status of county completed a modified training program and will be excluded from this presentation.

The second phase training was organized in April 2008 and was attended by six county health teams (Fig. 1). Five of them (IS, KZ, PG, ME and ZG) went through the first phase training in the 2002-2004 period, and one (ZD) in 2007. In this phase, the health teams had twelve to fifteen members in training, representing the political, executive and professional components, and the community.

s		INPUT	PARTICIPANTS	OUTCOMES
	The first training phase 2002 – 2008	Four training modules over four days (extended weekend) during a six months period, concentrated training combined with the "homework" between the modules (Assessment function, Health planning, Health policy formulation and development, Assurance function)	From March 2002: Dubrovnik-Neretva (DN), Istria (IS) and Varazdin (VZ) County health teams From October 2002: Bjelovar-Bilogora (BB), Krapina-Zagorje (KZ) and Vukovar-Srijem (VS) County health teams From February 2003: Osijek-Baranja (OB), Primorje-Gorski Kotar (PG) and Zagreb (ZG) County health teams From September 2003: Sisak-Moslavina (SM), Split-Dalmacia (SD) and Virovitica-Podravina (VP) County health teams From April 2004: Lika-Senj (LS), Međimujrje (ME) and Brod-Posavina (BP) County health teams From January 2007: Šibenik-Knin (SK), Zadar (ZD) and Požega-Slavonia (PS) County health teams From September 2008: Koprivnica-Križevci (KK) and Karlovac (KA) County health teams	Public health and management capacity building Strategic (health) documents developed (20 counties developed their own Health profiles and draft Health plans, with prioritized health needs and identified actions to address them) Team development, Project infrastructure development, Project coordination, Selection of interventions, Intervention planning
	Follow-up Applied research 2004 – 2008	Thematic multicounty working groups on breast cancer screening, quality of health care services (TQM workshops), cardiovascular diseases, Applied research on the needs of elderly people living alone in rural, remote areas, Causes and consequences of early drinking in youth		Technical expertise in most frequently chosen priorities
2006	1st EVALUATION WORKSHOP (program assessment)			
2008		INPUT	PARTICIPANTS	OUTCOMES
	The second training phase 2008 – 2012	Four training modules over three days during a six months period, concentrated training combined with "homework" between the modules (Vision, mission, management of change, Strategies and aims - business plan development, Alliance building, managing networks and inter-organizational collaboration, Implementation & monitoring of change)	From April 2008: Istria (IS), Primorje-Gorski Kotar (PG) and Međimujrje (ME) County health teams From November 2008: Krapina-Zagorje (KZ), Zadar (ZD) and Zagreb (ZG) County health teams	Implementation of strategic health documents, Social entrepreneurship development, Improved networking – levels and sectors, Synergy development, Institutionalization of change
	Follow-up Applied research 2008 – 2012	Coordinators meetings, expert panels, joint research, thematic workshops on palliative care, family health (early years, visiting nurse intervention, etc.), quality of health care services (Health promoting hospitals and services), Joint research single-parent families needs	All Counties: Dubrovnik-Neretva (DN), Istria (IS), Bjelovar-Bilogora (BB), Krapina-Zagorje (KZ), Vukovar-Srijem (VS), Primorje-Gorski kotar (PG), Zagreb County (ZG), Međimurje (ME), Brod-Posavina (BP), Šibenik-Knin (SK), Zadar County (ZD), Karlovac County (KA), Koprivnica-Križevci (KK)	Technical expertise in most frequently chosen priorities improved counties implementation skills
2012	2nd EVALUATION WORKSHOP (program assessment)			

Fig. 1. *Key element of the Counties Public Health Capacity Building Program „Health-Plan for It". Timeframe, training methods, participants and outcomes*

Processes

There were four sets of processes: the first training phase and follow-up with first Program assessment and the second training phase and follow-up with second Program assessment.

First training phase

In the first training phase during the six-month period, each county health team attended four training modules combined with "homework" in-between (Input, Fig. 1) (described in detail in ref. 10). The training strategy endorsed comparative advantages of the decentralized model of health planning, i.e. familiarity with local specificities, better recognition of the local needs, and awareness of the availability of resources (14,15). The training opened direct communication between the interested parties (the community, professionals, and politicians), which eased negotiations and agreement on priorities (12). This phase results were the County health profile and the framework for the County health plan (Outcomes, Fig. 1), both developed by the county health teams.

Follow-up – Post training period

The most frequently chosen county priorities (during the first phase) were addressed jointly in the follow-up (post training) period through thematic multicounty

working groups on the following: breast cancer screening, quality of health care services (TQM workshops), cardiovascular diseases, etc., or through applied (multi country) research (16), such as the needs of the elderly living alone in remote rural areas (17,18), or the causes and consequences of early drinking in youth (19-21) (Fig. 1).

The first Program assessment was undertaken in 2006 with twelve counties that finished the first phase of training (12).

Second training phase

The second set of training modules had a similar training structure as the first one. During the six-month period, the county health teams attended the set of four training modules (extended weekend intensive training) combined with "homework" in-between (Input, Fig. 1). The training curriculum was developed as a blend of recognized business management tools (vision, mission, management of change, strategies and aims, business plan development) and public health theory and practice (advocating, alliance building, managing networks and inter-organizational collaboration, implementation and monitoring of change). The training aims were to build the counties' implementation skills (Plan for implementation of the County health plan), facilitate networking among sectors and levels of governance, develop synergy among them, and support institutionalization of change.

Follow-up – Post training period

Counties that did not participate in the second set of training modules for different reasons, were welcomed to join the post training (follow-up) period (2009 to 2012), during which, through coordinators' meetings, expert panels, joint research and thematic workshops (three to four *per* year), new emerging topics such as palliative care and family health (early years, visiting nurse intervention, postpartum depression, single parent family support) were addressed.

The second Program assessment was conducted in November 2012 through four regional evaluation workshops that gathered 13 counties enrolled in the Program from 2002 to 2008.

Assessment instruments

In the first (2006) and second (2012) Program Assessment, the same three groups of instruments were used:

1. The Local Public Health Practice Performance Measures Instrument (performance matrix) has been developed by the Public Health Practice Program Office of the U.S. CDC (22-24). The instrument recognizes three core public health functions: assessment, policy development and assurance, and ten practices associated with them. The ten practices, supported by 29 associated indicators, were used to measure the effectiveness of the local public health practices. The School faculty translated the instrument into Croatian in 1999 and adapted it to Croatian context (10,12). The Croatian version of the instrument also allowed for commenting and describing the existing practices, i.e., whether or not they exist, and if they exist, whether they are satisfactory or not, who is doing or should be doing what, etc.) (12). The performance matrix was applied as the self-reporting instrument, filled out by the county health teams on three occasions, i.e. at the beginning of the modular training to assess existing ("0 point") public health practices (DN, VZ and IS in March 2002, BB, VS and KZ in October 2002, OB, PG and ZG in February 2003, SM, SD and VP in September 2003, LS, ME and BP in April 2004, SK, ZD and PS in January 2007, and KK and KA in September 2008), at the evaluation workshop in 2006, and at the evaluation workshop in 2012. Non-existing public health practices were scored 0; existing but unsatisfactory practice were scored 1; whereas satisfactory practice were scored 2.

Changes in core public health functions and practices associated with them ("0 point" and 2012) were tested by Student's T-test (paired).

2. The procedure Chart lists 49 procedures in chronological order, as they had to be carried out by county health teams: 24 procedures from the first and 25 from the second Program phase. Procedure chart as the self-reporting instrument was filled out by county health teams at the evaluation workshop in 2012. County teams were asked, in advance, to provide evidence for every procedure they indicate as performed. This enabled academic tutors to assess group results. The Chart assessed each county team's progress in general and in specific areas: (a) the application of newly gained knowledge, i.e. methods (procedure No. 1, 2, 4, 5, 6, 7, 8, 19, 20, 26, 28, 29, 33, 37, 38, 39, 40, 41, 42 and 47); (b) development of new products (procedure No. 11, 12, 15, 16, 21, 22, 24, 30, 31, 32, 34, 35, 36, 43, 45 and 46); and (c) establishment of local project legitimacy (procedure No. 3, 9,10, 13, 14, 17, 18, 23, 25, 27, 44 and 48) (Table 1).

Table 1
Procedures listed in chronological order (time line) during the „Health-Plan for It" County Public Health Capacity Building Program in Croatia, source of evidence if they were complited or not by the 2012, number of Counties that performed each procedure and type of procedure (Methods, Products, Legitimacy)

Procedure No	Procedure in chronological order	Source of evidence if they were completed	No. of counties preferred them	Type of procedure: Methods/ Products/ Legitimacy	
1	Participatory health needs assessment conducted	county health profile	13/13	M	The first training phase 2002 – 2008
2	Data used from routine health statistic, other information sources, equally qualitative and quantitative data	county health profile	13/13	M	
3	Project presented to general public at the beginning	newspaper clips, articles, radio / audio – video tapes	13/13	L	
4	Key stakeholders gathered and consulted through consensus conference	transcript from the consensus conference, press clippings	13/13	M	
5	Public health priorities chosen through the process of wider consultation (local politicians, professional groups, NGO-s)	county health profile	13/13	M	
6	Local experts panel convened around priorities (problem) analysis	county health profile, strategic framework of the county health plan	13/13	M	
7	Policies and programs to address priorities developed (clear program vision)	county health profile, strategic framework of the county health plan	13/13	M	
8	Implementation of agreed activities	progress reports	12/13	M	
9	Project legitimacy established – team members and coordinator formally appointed by the council	official letter	13/13	L	
10	Project articulated and formally (by the county officials) presented to the public	newspaper clips, articles, radio audio – video tapes	13/13	L	
11	County health profile completed as publication	paper copy of the county health plan	13/13	P	
12	Strategic framework of the county health plan completed as publication	paper copy of the strategic framework of the county health plan	13/13	P	
13	Key project documents (profile and strategic framework) accepted by the county government	official letter, transcript, minutes from the meeting	13/13	L	
14	Key project documents accepted by county council	official letter, transcript, minutes from the meeting	13/13	L	
15	Long-term health plan developed	paper copy of the long-term county health plan	7/13	P	Follow-up Applied research 2004 – 2008
16	Short-term health plans developed	paper copy of the short-term (yearly) county health plans	9/13	P	
17	County health plan accepted by the county government	official letter, transcript, minutes from the meetings	8/13	L	
18	County health plan accepted by the county council	official letter, transcript, minutes from the meetings	9/13	L	
19	Implementation partners gathered and well informed about the project aims (have a clear "big" picture)	transcript, minutes from the meetings, press clipping	9/13	M	
20	Implementation partners, specially trained in order to better perform their part	copy of training materials, press clipping	8/13	M	
21	Resources (county budget) allocated to the chosen priority activities	copy of the county budget for the fiscal year	8/13	P	
22	Yearly monitoring and evaluation in place	report, minutes from the meeting	4/13	P	
23	Yearly progress report to the county council	paper copy of the progress report	4/13	L	
24	Project integrated into the everyday routine of the county department of health and social welfare	paper copy of the department of health and social welfare program of work	7/13	P	
25	Project legitimacy in implementation phase established – team members and coordinator formally appointed by the county government	official letter	8/13	L	The second training phase 2008 – 2012
26	Regular county health team meetings (minim. 6 times yearly)	minutes from the meetings	5/13	M	
27	Established local expert panels around priorities (members appointed)	official letter, transcript, minutes from the meetings	7/13	L	
28	Regular priority (thematic) groups meetings (minim.4 times yearly)	minutes from the meetings	4/13	M	
29	Priority (thematic) sub groups established and functional	minutes from the meetings	3/13	M	
30	Yearly implementation plan accepted by health team	paper copy of the yearly implementation plan	3/13	P	
31	Yearly implementation plan assessed by health team	minutes from the meetings	3/13	P	
32	Accountability mechanisms in place (rewards and sanctions)	minutes from the meetings	3/13	P	
33	Regular training and education of the county health team members	copy of training materials, reports	4/13	M	
34	County resources inventory completed	copy of resources inventory	5/13	P	

35	Implementation partners determined as well as models of cooperation	minutes from the meeting	6/13	P	The second training phase 2008 – 2012
36	Partnership conference convened (take place)	newspaper clips, articles, radio audio – video tapes	5/13	P	
37	Cooperation with key implementation partners formalized	copy of signed cooperation agreements	5/13	M	
38	Defined project vision and mission	plan for implementation of the County health plan	6/13	M	
39	Business policy articulated	plan for implementation of the County health plan	6/13	M	
40	Strategic aims defined and translated into operational targets	plan for implementation of the County health plan	6/13	M	
41	Road map developed	plan for implementation of the County health plan	6/13	M	
42	Implementation monitoring mechanisms in place	plan for implementation of the County health plan	6/13	M	
43	Business plan developed (Plan for implementation of the County health plan)	plan for implementation of the County health plan	6/13	P	Follow-up Applied research 2008 – 2012
44	Satisfying projects public visibility	newspaper clips, articles, radio audio – video tapes	5/13	L	
45	Assured project sustainability (financial, administrative and professional support, partners etc.)	paper copy of the department of health and social welfare program of work	5/13	P	
46	County health plan implemented	report, minutes from the meeting	6/13	P	
47	Evaluation of implementation (closed first planning circle)	report, minutes from the meeting	2/13	M	
48	Results presented to the public through Conference	report, newspaper clips, articles, radio audio – video tapes	2/13	L	
49	New planning circle open – new priorities selected	report, newspaper clips, articles, radio audio – video tapes	1/13	M	

3. Tutorial notes for each county team were created from the written material collected during the Program, and they included county documentation (memorandums, appointments, meeting notes, publications, press clippings, and county assembly reports), and visual or written material produced by county teams (questionnaires, power point presentations, and written documents). County files were assembled with minutes from the meetings and tutor observations. Content analysis of the collected material was performed by the Faculty and the results were used to verify the results obtained by the previous two self-assessment methods.

To enhance collected data credibility, data triangulation (numerical and textual), methodological triangulation (performance matrix, procedure chart, and tutorial note analysis), and investigator triangulation (different academic background) were performed according to Patton's methods (25,26).

RESULTS

Data collection – evaluation workshop

The second evaluation workshop was held on November 5, 2012, for Slavonian region counties, in the town of Vinkovci, where two (VS and BP) county health teams were present. The evaluation workshop for the Dalmatian region counties was held in Biograd n/m on November 15, 2012 with three county health teams present (SK, ZD and DN). Two western Croatia counties (IS and PG) health teams gathered in Opatija on November 22, 2012, and five northern and central Croatian counties assembled in Zagreb on November 29, 2012 (ME, KZ, BB, KK, KA and ZG) for the evaluation workshop. Data on seven counties (OB, PS, VP, SD, LS, SM and VA) that did not participate in the second program assessment are not included in the analysis.

Thirteen county teams differed in the number of team members that took part in the evaluation workshops (72 participants), half of the teams were almost complete in number, whereas half were reduced to 2-5 members.

Results of evaluation are presented as changes in core public health functions and skills acquired.

Changes in core public health functions

Changes in core public health functions were evaluated by applying the Local Public Health Practice Performance Measures Instrument, performance matrix (Table 2, Fig. 2). All three core public health functions (assessment, policy development and assurance), as well as their total score showed statistical significance in change (Table 2). The scores in any of the 13 counties performance matrix were higher in 2012 than at the "0 point" when they entered training (Fig. 2). All counties showed improvement in assessment and policy development functions, while assurance function was improved mainly in the six counties that attended the second set of training modules (Fig. 2).

Table 2
Core public health functions (CPF) by county and measurements

Name of the County	First measurement			Second measurement			First measurement	Second measurement	Changes			
	CPF1	CPF2	CPF3	CPF1	CPF2	CPF3	CPF1+CPF2+CPF3	CPF1+CPF2+CPF3	CPF1+CPF2+CPF3	CPF1	CPF2	CPF3
Dubrovnik-Neretva	2	2	2	4	2	3	6	9	3	2	0	1
Istria	4	4	5	6	6	5	13	17	4	2	2	0
Bjelovar-Bilogora	2	1	1	4	3	4	4	11	7	2	2	3
Krapina-Zagorje	3	1	3	4	6	6	7	16	9	1	5	3
Vukovar-Srijem	2	1	3	4	3	8	6	15	9	2	2	5
Primorje-Gorski kotar	4	3	2	6	6	6	9	18	9	2	3	4
Zagreb County	3	0	2	6	6	5	5	17	12	3	6	3
Međimurje	4	2	3	4	6	6	9	16	7	0	4	3
Brod-Posavina	3	0	1	6	5	6	4	17	13	3	5	5
Šibenik-Knin	2	0	0	4	4	2	2	10	8	2	4	2
Zadar County	2	0	3	4	6	8	5	18	13	2	6	5
Karlovac County	2	1	1	5	6	7	4	18	14	3	5	6
Koprivnica-Križevci	2	1	4	3	5	1	7	9	2	1	4	-3
Mean	2.7	1.2	2.3	4.6	4.9	5.2	6.2	14.7	8.5	1.9	3.7	2.8
P*									0.000	0.000	0.000	0.001

*Student T-test (paired, one-tailed) • Key: CPF 1: Assessment function, CPF 2: Policy development function, CPF 3: Assurance function

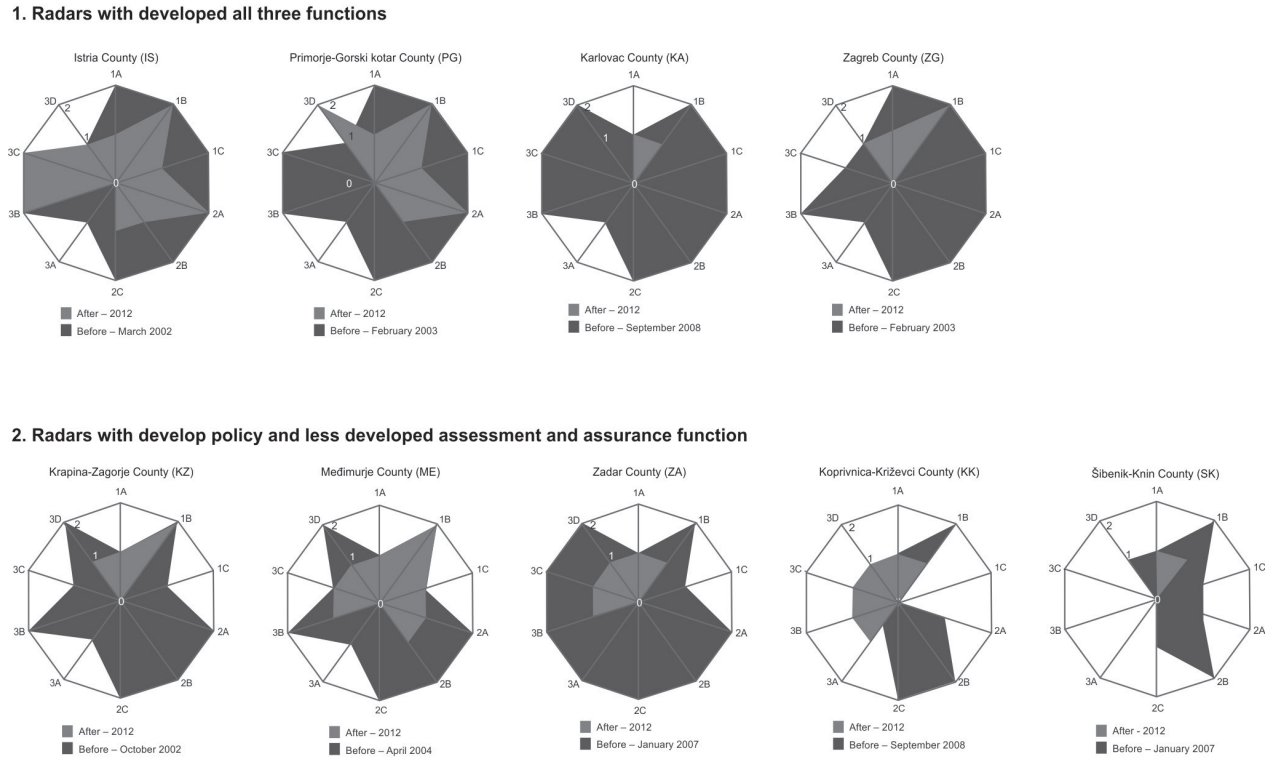


Fig. 2. *The Local Public Health Performance Measures (the performance matrix). Results of 13 county health tims at the beginning of modular training (light – before) and at the end evaluation workshop in 2012 (dark – after)*

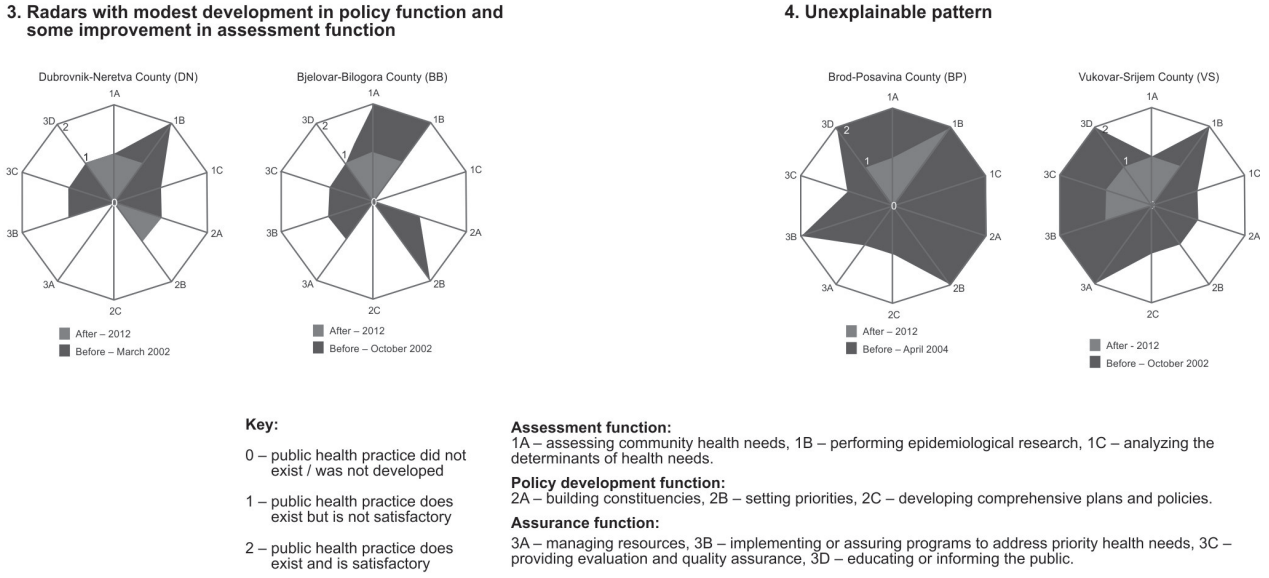


Fig. 2. - *cont.*

Assessment function "performing epidemiological research" was present in all counties before the training (as it is part of the County Institutes of Public Health legal obligation) but "assessing community health needs" and "analyzing the determinants of health needs" were developed through the training.

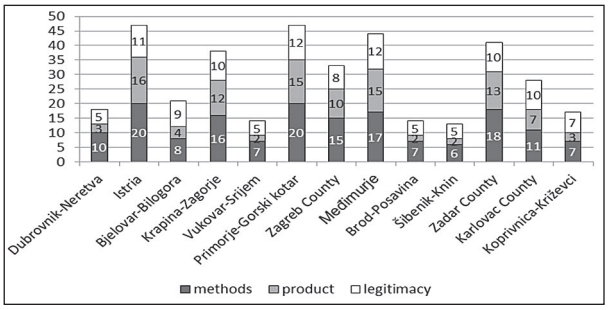
Policy development functions "building constituencies", "setting priorities" and "developing comprehensive plans and policies" were developed during the training. The same applied to the Assurance functions "managing resources", "implementing or assuring programs to address priority health needs", "providing evaluation and quality assurance" and "educating or informing the public" (Fig. 2).

In combining performance matrix results (Fig. 2, radars), four different patterns of counties can be observed. The first pattern is characterized as counties with all three functions developed (IS, PG, KA and ZG). The second pattern is characterized as counties with developed policy and less developed assessment and assurance function (KZ, ME, ZD, KK and SK). The third pattern is characterized as counties with modest development in policy function and some improvement in assessment function (DN and BB). The fourth pattern is unexplainable one (BP and VS).

Skills acquired by the Procedure Chart

Skills acquired were present by the Procedure Chart. The Procedure Chart (Table 3) clearly distinguishes differences in achievements between the (six) counties that attended the second set of training modules and those that did not. The exception is the Karlovac County, one of the latest counties to enroll in the program (in 2008) that did not attend the second set of training modules.

Table 3
The procedure chart. Procedures completed by the teams from 13 Croatian counties at the end of 2012



Key: Dark grey bar: methodological improvement – procedures No: 1, 2, 4, 5, 6, 7, 8, 19, 20, 26, 28, 29, 33, 37, 38, 39, 40, 41, 42 and 47, Medium grey bar: development of products – procedures No: 11, 12, 15, 16, 21, 22, 24, 30, 31, 32, 34, 35, 36, 43, 45 and 46, White bar: establishment of local project legitimacy – procedures No: 3, 9, 10, 13, 14, 17, 18, 23, 25, 27, 44 and 48. Numbered procedures correspond to those in Table 1

Generally, all county teams completed more procedures during the organized training than during the follow-up period (Table 1).

Tutorial notes

Tutorial notes provided information on the political context and the county teams' composition and dynamics. Best performing county teams were those that had continuous political support over years (even if the county governors had changed, as in KZ and ME Counties), committed team leader (not necessarily with medical background, such as KA, ZG, ME and KZ Counties), and strong professional component from health and social welfare services (PG and IS Counties). Experienced and highly motivated NGO and media representatives gave an added value to their te-

ams (IS, KA, ME, ZD, VS and DN Counties) but were not recognized as the key success factor.

DISCUSSION

Like those of the first evaluation workshop in 2006 (12), the results of the second evaluation workshops in 2012 showed that the Program increased the counties' public health capacity.

The scores in each of the 13 counties' performance matrices were higher in 2012 than at the "0 point" when they entered modular training. The Procedure Charts confirm that all of them developed their own health profiles and health plans with prioritized health needs and identified actions to address them.

Combining the findings from the county teams' performance matrices (Fig. 2) and procedure charts (Table 3) with the tutorial notes, four distinct patterns have appeared, similar as in the first evaluation in 2006 (12):

1) the Radars that show all three functions well developed, most of the procedures accomplished and (well balanced) high performing health teams (strong political, executive and professional components), for example IS, PG, KA and ZG Counties;
2) the Radars that show well developed policy and slightly less developed assessment and assurance function, with most of the procedures accomplished and health teams well established with slightly dominant executive and political components (but more modest professional public health component), for example ME, KZ and ZD Counties. Similar team compositions with more modest results can be observed in the KK and SK Counties;
3) the Radars showing modest development in policy function with some improvements in assessment function, a modest number of procedures accomplished, and teams with a strong professional public health component and weak or non-existing executive and political components, as in the BB and DN counties; and
4) unexplainable patterns – discrepancy between results in performance matrix and procedure chart, as in the VS and BP Counties. These county health teams overrated their achievements on the priority matrix but were not able to support them with evidence on the procedure chart.

The time of entering the Program – the early (2002) or later stage (2008), did not make difference (27). Although the ZD and KA Counties are from the group trained later (2007-2008), their performance matrix demonstrated much better achievements than the performance matrices of some counties trained earlier, such as the BB or DN County.

Differences in individual county achievements can be explained through tutorial notes and observations – the political context and the county health team composition and dynamics – stability of political support at the county level, commitment and personality of team leader (usually head of county department of health and social welfare) and commitment and skills of public health professionals (county Institutes of Public Health).

Between 2002 and 2012, Croatia went through a turbulent period politically (three national elections with four different governments and two local elections) and economically (financial crisis), which all had an impact on the Program and local projects. However, the best performing counties (IS and PG), with committed and well composed county health teams (strong political, executive, professional and NGO components) that were extended over years and presently involve dozens of people working in several priority groups, with sustained political support over years (county governor, county council) have reached the tutors' ultimate goal – have shown the ability to plan for health and implement services tailored to the local health needs (self-funded, above the national standard), close the planning cycle, perform evaluation and continue with the next planning cycle (need assessment, selection of priorities, etc.) by themselves, without additional trainer support.

Other counties that attended the second set of training modules (ME, KZ, ZG and ZA Counties) are heading in the same direction – showing the ability to accept new methods of work and deliver the new products required. Karlovac County, one of the last counties enrolled in the Program (2008), achieved much better results than "older" counties, showing that the time spent in the Program is not a key factor contributing to local project success, but political stability and team composition are.

A serious limitation of the Program is its political vulnerability. Changes in national and regional leadership, changes in regulation, fiscal policy and recession had an impact on local team performance and the Program in general. Counties whose political leadership (county governors) changed over years once or twice (for example, DN, BB, BP, VS and KK Counties) or which had weak support from the executive component (newly appointed or uninterested heads of county departments for health and social welfare, e.g., DN, BB, BP and VS Counties) were disadvantaged over time. For example, the DN County had better results in the 2006 evaluation (12) than in 2012.

Many "anchoring" mechanisms were built into the Program to "safeguard" local project stability such as the following: assurance of stakeholder ownership (team composition and active involvement in the health planning process – need assessment, priority selection, intervention planning), project legitimacy building (all developed health documents were accepted by the county assembly), public visibility (a media representative as member of the county health team) and accountability (yearly reporting on project achievements, five-year consensus conferences with selection of new priorities, publicly available information on strategic health documents and implementation progress on the counties' official web pages). This mechanism helped the best performing counties adopt their health planning cycle as their operational routine, but other counties struggled with project survival. This growing difference in project achievement among the counties also represents a challenge to the Program.

Other limitations of this study are the instruments that were selected to measure progress at the beginning of the Program. On literature review, the authors did not come across similar instruments that were used by other authors. Other measuring instruments that might be better had been developed later (28,29). The Local Public Health Practice Performance Measures Instrument and the procedure chart are the self-reporting instruments filled out by the county teams, which may underrate or overrate achievements on the performance matrix (that can explain results presented in Table 2, e.g., lower sense of achievement among members of IS and KK county teams and overrated achievements of VK and SB county teams on 2012 evaluation workshop). The advantage of the procedure chart is that it requires justification (written evidence) of procedures and supported by tutorial notes can help in detecting inconsistencies, i.e. may compensate for recognized instrument shortcomings.

Different levels of achievement due to "institutional or personal capacity to change", reported by other authors (1,28,30,31), is in line with our findings that individual county success in the Program depended on team composition and level of (regional) political stability.

In this paper, the effectiveness of the overall decentralization process in Croatia was not analyzed. There is a need, in the future, to study the interplay between central and regional government (decision space), and assess the impact of decentralization on the provision of primary and secondary level health services (1,5,30).

Despite its limitations, the *Health-Plan for It* Program, as an innovative approach to regional level administration capacity building, is able to highlight the benefits of long standing cooperation between the academic community and local and national government. In case of Croatia, it paved the way towards decentralization and helped in translational public health research development.

The counties' capacity for change differs and the Program was not equally efficient for all of them. In order to gain better understanding of all the objective or subjective constraints on local project development, we will widen the spectrum of instruments and methods we currently use in analysis (30,31) and present them in the next paper.

The Program is still operational, it is continuing through the Croatian Healthy Cities Network activities, supporting acquisition of new knowledge and skills in the fifteen member counties, especially in relation to evidence informed policy making, monitoring and evaluation.

CONCLUSION

The *Health-Plan for It* Program had positive impact on counties' capacity to plan for health and implement services based on locally recognized health needs. The Program showed improvement of all core public health functions in all counties. Assurance function showed generally higher change in counties that passed both sets of modules.

A serious limitation of the Program is its political vulnerability. The counties' capacity for change differs and the Program was not equally efficient in all of them. Differences in achievements among the counties can be explained through stability of political support at the county level, team composition, and commitment of the team leader. Changes in national leadership, changes in regulation, fiscal policy and recession had an impact on local team performance and the Program in general.

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SAŽETAK

ZNAČENJE PROGRAMA "RUKOVOĐENJE I UPRAVLJANJE ZA ZDRAVLJE" U JAČANJU JAVNOZDRAVSTVENE I UPRAVNE KOMPETENCIJE HRVATSKIH ŽUPANIJA – DVANAEST GODINA POSLIJE

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Cilj ovoga istraživanja bio je ocijeniti vrijednost učinaka Programa "Rukovođenje i upravljanje za zdravlje" na sposobnost hrvatskih županija da planiraju za zdravlje te implementiraju programe temeljene na lokalno prepoznatim zdravstvenim potrebama u podizanju javnozdravstvene i upravne kompetencije hrvatskih županija dvanaest godina nakon pokretanja toga Programa. U razdoblju od 2002. do 2008. godine svih dvadeset županijskih timova za zdravlje provedeno je kroz prvi set edukacijskih modula. Prva evaluacija Programa napravljena je 2006. godine. Temeljem rezultata evaluacije izrađen je drugi set edukacijskih modula kroz koji je, u razdoblju od 2008. do 2009. godine provedeno šest županijskih timova. U drugoj evaluaciji Programa održanoj 2012. godine primijenjena su tri evaluacijska instrumenta: Matrica temeljnih funkcija javnog zdravstva (*Local Public Health Practice Performance Measures Instrument*) i hodogram aktivnosti županijskih timova (*Procedure Chart*) kao instrumenti za samoprocjenu te zabilješke/zapažanja mentora sa Škole narodnog zdravlja "Andrija Štampar". Rezultati timova za zdravlje trinaest županijskih timova, sudionika u drugom krugu evaluacije u 2012. godini bolji su u usporedbi s njihovim početnim stanjem (*0-point*). Promjene u rezultatima pokazuju statistički značajnu razliku kako u ukupnom zbroju (sve tri temeljne funkcije zajedno) tako i za svaku funkciju pojedinačno (procjena stanja, oblikovanje zdravstvene politike, osiguravanje resursa). Sve su županije pokazale napredak u funkciji procjene stanja i oblikovanja zdravstvene politike. Funkcija osiguravanja sredstava bila je unaprijeđena kod županija sudionica u drugom setu edukacijskih modula. Hodogrami aktivnosti županijskih timova pokazali su da su sve županije (sudionice u evaluaciji) izradile Županijske slike zdravlja i Planove za zdravlje s jasno definiranim prioritetima i aktivnostima kojima ih namjeravaju riješiti. Rezultati evaluacije provedene 2012. godine, kao i rezultati evaluacije iz 2006. pokazuju da su Programom unaprijeđene javnozdravstvene kompetencije županija. Dvije županije uključene u Program tek 2007./2008. godine postigle su bolje rezultate od „starih" (ranije uključenih) županija te time pokazale da vrijeme provedeno u programu nije ključni čimbenik uspješnosti projekta lokalno. Razlika u postignućima može se pripisati „institucionalnom ili osobnom kapacitetu za promjenu" o kojem izvještavaju i drugi autori. Ovdje prikazani rezultati ukazuju na to da je razlika u postignućima u Programu među županijskim timovima bila uvjetovana sastavom tima i političkom stabilnosti lokalno. Programom su unaprijeđene sve temeljne javnozdravstvene funkcije u županijama sudionicama Programa. Funkciju osiguravanja sredstava najviše su unaprijedile županije uključene u oba seta edukacijskih modula. Županije imaju različit kapacitet za uvođenje promjene pa sudjelovanje u Programu nije kod svih polučilo jednako dobre rezultate. Razlike u razini postignuća između županija moguće je objasniti postojanjem (ili odsustvom) kontinuirane političke potpore na županijskoj razini, sastavom tima i predanošću njegovog voditelja.

Ključne riječi: **županije, jačanje javnozdravstvenih kompetencija, decentralizacija**