Enabling Screening for colon rectal cancer

The PSR (regional health Plan) 2003/2005: "Making promotion and prevention activities initiative: to ensure the beginning of colorectal cancer screening (Paragraph equity of access to effective care and reduction avoidable mortality).
Specifically, the PSR Screening for colorectal cancer involve the "Region in the years to enable screening for colorectal cancer at a regional level involves the following steps: Year 1: epidemiological analysis and cost effectiveness of diagnostic options with a choice of procedure and definition of reference activation costs and arrangements; Year 2: definition of business programs and software acquisition; Year 3: activation screening offer.
Therefore, the Planning Service of primary care and hospital and Umbro Regional Epidemiological Observatory (OERU), Regional Health Directorate and Social Services coordinated the implementation of the following activities:
A) epidemiological analysis on colorectal cancer in Umbria, through the Cancer Registry Umbro Population (RTUP) working in agreement with the OERU and provides evidence on impact, mortality (Table 1) in 1999-2001 and survival (Table 2) in 1994-1998 for colorectal and cr (cancer) rectum, which shows: - for men increases the incidence of colorectal cancer, while the increase in mortality is reduced and improvement is seen in survival on - for women cr colon is among the top three sites for incidence (between the cr breast and cr. stomach) is increasing, as opposed to mortality while reaches a relative survival of 60%, quite comparable to that of male;

Table 1: incidence and mortality of colorectal cr in Umbria in the period 1999-2001 (Source RTUP).

	Annual rate of incidence x 100,000 residents	Annual mortality rate x 100,000 residents.
Men	105,7	42,9
Female	79,5	35,5

Table 2 Relative survival at five years (%) for some cancer sites in Umbria. Comparison of incident cases in the periods 1978-82 and 1994-96.

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ICD-IX SEDE	MASCHI			FEMMINE		
	1978-1982	1994-1996	Var %	1978-1982	1994-1996	Var %
151 STOMACO	25	35	40,0	28	34	21,4
153 COLON	49	59	20,4	54	61	13,0
154 RETTO	48	60	25,0	55	59	7,3
155 FEGATO	1	9	800,0	1	10	900,0
157 PANCREAS	0	4		3	5	66,7
161 LARINGE	63	70	11,1	73		-100,0
162 POLMONE	11	15	36,4	20	18	-10,0
172 PELLE (MELANOMI)	60	58	-3,3	61	81	32,8
174 MAMMELLA (FEMMINE)				71	86	21,1
180 COLLO DELL'UTERO				63	68	7,9
185 PROSTATA	39	71	82,1			
204 LEUCEMIA LINFATICA	46	60	30,4	51	64	25,5
205 LEUCEMIA MIELOIDE	19	25	31,6	6	27	350,0

B) the review of available guidelines and evaluation methodology have led to identify on LG: Screening, early diagnosis and treatment multidisciplinary colorectal cancer "produced in June 2002 by the Human Services Regional Health under the National Program Guidelines (PNLG), the reference document for the conduct of screening for colorectal cancer in Umbria.
Referring to the site of PNLG for specific aspects, it is important to stress here as there is convergence of evidence that the appropriate tools to reduce preventable death and ensure equity in access to effective treatments consist of:
1) offer active citizens of both sexes aged 50-74 years of screening for Free colorectal cancer by examination of faeces or biennial pancolonscopia free every ten years;
2) the provision of public success, a diagnostic workup therapeutic free having quality assurance at all stages.

C) Based on epidemiological information and that provided by the literature on Accession to the different stages of the screening in question were produced two hypotheses Application calibrated to the Umbrian population aged 50-74 years:
C.1) The first involves the conduct of tests for occult blood and subsequent further diagnostic and therapeutic interventions (tabs 1-12)
C.2) The second involves the making of pancolonscopia every 10 years and resulting in further investigations and therapeutic interventions (tabs 13 - 15)

1) SCREENING colon.
Route 1: Occult Blood + colonoscopy; Phase A: Call every two years and feces samples delivered to the health center.
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	4.021	3.775	3.114	3.106	3.465	3.696	3.284	3.666	2.872	3.585	16.756	17.828	34.584
Usl 2	11.327	11.854	9.435	9.999	10.393	11.390	9.424	10.588	8.301	10.134	48.880	53.965	102.845
Usl 3	5.793	5.805	4.912	5.032	4.951	5.594	4.536	5.388	4.590	5.712	24.782	27.531	52.313
Usl 4	7.896	8.085	6.736	7.223	7.356	7.706	6.449	7.388	6.101	7.724	34.538	38.126	72.664
Totale	29.037	29.519	24.197	25.360	26.165	28.386	23.693	27.030	21.864	27.155	124.956	137.450	262.406

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2) SCREENING colon.
Route 1: Occult Blood + colonoscopy, Phase B: immunoassays to be performed every two years with assumptions membership to 50%.
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	2.011	1.888	1.557	1.553	1.733	1.848	1.642	1.833	1.436	1.793	8.378	8.914	17.292
Usl 2	5.664	5.927	4.718	5.000	5.197	5.695	4.712	5.294	4.151	5.067	24.440	26.983	51.423
Usl 3	2.897	2.903	2.456	2.516	2.476	2.797	2.268	2.694	2.295	2.856	12.391	13.766	26.157
Usl 4	3.948	4.043	3.368	3.612	3.678	3.853	3.225	3.694	3.051	3.862	17.269	19.063	36.332
Totale	14.519	14.760	12.099	12.680	13.083	14.193	11.847	13.515	10.932	13.578	62.478	68.725	131.203

3) SCREENING colon. Route 1: Occult Blood + colonoscopy, Phase C: pc to invite to colonoscopy every two years (assuming a minimum 3% pos.test Immunol.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	60	57	47	47	52	55	49	55	43	54	251	267	519
Usl 2	170	178	142	150	156	171	141	159	125	152	733	809	1.543
Usl 3	87	87	74	75	74	84	68	81	69	86	372	413	785
Usl 4	118	121	101	108	110	116	97	111	92	116	518	572	1.090
Totale	436	443	363	380	392	426	355	405	328	407	1.874	2.062	3.936

4) SCREENING colon. Route 1: Occult Blood + colonoscopy, Phase C: pc to invite to colonoscopy every two years (assuming a maximum 5% pos. Immunoassay.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	101	94	78	78	87	92	82	92	72	90	419	446	865
Usl 2	283	296	236	250	260	285	236	265	208	253	1.222	1.349	2.571
Usl 3	145	145	123	126	124	140	113	135	115	143	620	688	1.308
Usl 4	197	202	168	181	184	193	161	185	153	193	863	953	1.817
Totale	726	738	605	634	654	710	592	676	547	679	3.124	3.436	6.560

5) SCREENING colon. Route 1: Occult Blood + colonoscopy; Step D: 2 years on expectations accessions to colonoscopy (75% to 3% accessions pos.test Immunol.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	45	42	35	35	39	42	37	41	32	40	189	201	389
Usl 2	127	133	106	112	117	128	106	119	93	114	550	607	1.157
Usl 3	65	65	55	57	56	63	51	61	52	64	279	310	589
Usl 4	89	91	76	81	83	87	73	83	69	87	389	429	817
Totale	327	332	272	285	294	319	267	304	246	305	1.406	1.546	2.952

6) SCREENING colon. Route 1: Occult Blood + colonoscopy; Phase D: 2 years on expectations accessions to colonoscopy (75 accessions% on 5% pos.test Immunol.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	75	71	58	58	65	69	62	69	54	67	314	334	648
Usl 2	212	222	177	187	195	214	177	199	156	190	917	1.012	1.928
Usl 3	109	109	92	94	93	105	85	101	86	107	465	516	981
Usl 4	148	152	126	135	138	144	121	139	114	145	648	715	1.362
Totale	544	553	454	476	491	532	444	507	410	509	2.343	2.577	4.920

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7) COLON SCREENING
Rett. Route 1: Occult Blood + colonoscopy; Step E1: Estimates pc with precancerous lesions (20% to 3% colonoscopies pos.test Immunol.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	9	8	7	7	8	8	7	8	6	8	38	40	78
Usl 2	25	27	21	22	23	26	21	24	19	23	110	121	231
Usl 3	13	13	11	11	11	13	10	12	10	13	56	62	118
Usl 4	18	18	15	16	17	17	15	17	14	17	78	86	163
Totale	65	66	54	57	59	64	53	61	49	61	281	309	590

8) SCREENING colon.
Route 1: Occult Blood + colonoscopy, Phase E1: Estimates pc with precancerous lesions (20% to 5% of colonoscopies pos.test Immunol.)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	30	28	23	23	26	28	25	27	22	27	126	134	259
Usl 2	85	89	71	75	78	85	71	79	62	76	367	405	771
Usl 3	43	44	37	38	37	42	34	40	34	43	186	206	392
Usl 4	59	61	51	54	55	58	48	55	46	58	259	286	545
Totale	218	221	181	190	196	213	178	203	164	204	937	1.031	1.968

9) SCREENING colon.
Route 1: Occult Blood + colonoscopy; Step E2: Estimation biennial biopsies x anat. pat. (50% 3% biopsies assumptions pos.test immunological)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	30	28	23	23	26	28	25	27	22	27	126	134	259
Usl 2	85	89	71	75	78	85	71	79	62	76	367	405	771
Usl 3	43	44	37	38	37	42	34	40	34	43	186	206	392
Usl 4	59	61	51	54	55	58	48	55	46	58	259	286	545
Totale	218	221	181	190	196	213	178	203	164	204	937	1.031	1.968

10) SCREENING colon.
Route 1: Occult Blood + colonoscopy; Step E2: Estimation biopsies x anat. Patola. (50% of biopsies pos.test immunological hypothesis 5%)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	38	35	29	29	32	35	31	34	27	34	157	167	324
Usl 2	106	111	88	94	97	107	88	99	78	95	458	506	964
Usl 3	54	54	46	47	46	52	43	51	43	54	232	258	490
Usl 4	74	76	63	68	69	72	60	69	57	72	324	357	681
Totale	272	277	227	238	245	266	222	253	205	255	1.171	1.289	2.460

11) SCREENING colon.
Route 1: Occult Blood + colonoscopy, Phase F: biennial expected cancer cases (2% pre-cancerous lesions detected at colonoscopy)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

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	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	0	0	0	0	0	0	0	0	0	0	1	1	2
Usl 2	1	1	0	0	0	1	0	0	0	0	2	2	5
Usl 3	0	0	0	0	0	0	0	0	0	0	1	1	2
Usl 4	0	0	0	0	0	0	0	0	0	0	2	2	3
Totale	1	1	1	1	1	1	1	1	1	1	6	6	12

12) SCREENING colon.
Route 1: Occult Blood + colonoscopy, Phase F: biennial expected cancer cases (2% pre-cancerous lesions detected at colonoscopy)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	1	1	0	0	1	1	0	1	0	1	3	3	5
Usl 2	2	2	1	1	2	2	1	2	1	2	7	8	15
Usl 3	1	1	1	1	1	1	1	1	1	1	4	4	8
Usl 4	1	1	1	1	1	1	1	1	1	1	5	6	11
Totale	4	4	4	4	4	4	4	4	3	4	19	21	39

13) SCREENING colon.
Route 2: colonoscopy every 10 years, Phase A: the annual number of calls
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	402	378	311	311	347	370	328	367	287	359	1.676	1.783	3.458
Usl 2	1.133	1.185	944	1.000	1.039	1.139	942	1.059	830	1.013	4.888	5.397	10.285
Usl 3	579	581	491	503	495	559	454	539	459	571	2.478	2.753	5.231
Usl 4	790	809	674	722	736	771	645	739	610	772	3.454	3.813	7.266
Totale	2.904	2.952	2.420	2.536	2.617	2.839	2.369	2.703	2.186	2.716	12.496	13.745	26.241

14) SCREENING colon.
Route 2: colonoscopy every 10 years, Phase B: Annual number of colonoscopies with 17% adhesion hypothesis
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	68	64	53	53	59	63	56	62	49	61	285	303	588
Usl 2	193	202	160	170	177	194	160	180	141	172	831	917	1.748
Usl 3	98	99	84	86	84	95	77	92	78	97	421	468	889
Usl 4	134	137	115	123	125	131	110	126	104	131	587	648	1.235
Totale	494	502	411	431	445	483	403	460	372	462	2.124	2.337	4.461

15) SCREENING colon.
Route 2: colonoscopy every 10 years, Phase C: the annual number of positive colonoscopy (hypothesis 2%)
TARGET: RESIDENT YEAR 2000 - FOR CLASS 'AGE 50-74 YEARS OF' Sex and ASL

	50-54		55-59		60-64		65-69		70-74		totale		
	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	m.	f.	mf
Usl 1	1	1	1	1	1	1	1	1	1	1	6	6	12
Usl 2	4	4	3	3	4	4	3	4	3	3	17	18	35
Usl 3	2	2	2	2	2	2	2	2	2	2	8	9	18
Usl 4	3	3	2	2	3	3	2	3	2	3	12	13	25
Totale	10	10	8	9	9	10	8	9	7	9	42	47	89

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D) Finally was acquired as a basis for estimating resources and absorbed by development of colorectal CR scheme in Umbria, the cost analysis conducted in Region Tuscany on the screening program of ASL 10 of Florence. On this occasion it was estimated through an analytical evaluation of the cost of the individual steps and activities related to the biennial testing for fecal occult blood, an average cost around pariah Euro 118,610 per 10,000 people invited (based on percentage of membership expectations and epidemiological characteristics of the disease), with a cost per adenoma identified that ranged between Euro 1975 and 2150, while the cost per cancer detected to lie between 4750 and Euro 7.000,00.
Assuming that population to be screened every year in the first round is equal to 131,203 residents, we would have an annual cost of Euro 1,556,000, a figure which at first approximation is considered indicative of the cost of activation in Umbria, although potentially overstated by at least two factors: - the lowest cost related to those citizens who choose to make a pancolonscopia every 10 years - the share of costs already incurred in any case the SSR for a share made in pancolonscopie diagnostic questions on Umbrian citizens would no longer be necessary and that once activated the bidding procedure on. On this basis it is estimated that 1.5 million Euro to represent a good first approximation of the annual cost of the entire procedure screening.

Annex 1.2.2) DGR 1021 of 22.6.2005 "Organization of Screening colorectal cancer – the path"

Introduction

This document refers to the activation of a screening program for colorectal cancer at a regional level by testing for occult blood fecal and has the following objectives: to define the various stages of organizational path that companies should actively offer a healthier population for prevention secondary identify the fundamental characteristics of information system and indicators for monitoring and evaluation of the program describe the state of
current progress of regional process of implementation of the screening schedule activities and the time required for initiating effective screening, identifying responsibilities for the implementation of activities to start screening and the stages of organization. Legislative, regulatory guidelines and reference DGR 941/2004: Activation screening for colorectal cancer; Health Plan Regional 2003-2005; National Program for the Guidelines: "Guidelines on Screening, early diagnosis and multidisciplinary treatment of colorectal cancer".

Overall objective of the program and quality objectives

General objectives:

- Ensure every two years to the whole population in the region in band age 50-74 years, the active offer of the screening test and any insights that then make necessary;
- Ensure equity in access to effective care and reduce avoidable mortality organ specification;

Quality objectives:

- Guarantee citizens a positive diagnostic-therapeutic complimentary in quality assurance in all its stages through the application of defined protocols and trained staff;

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- Monitor the quality of the various stages of the monitoring, evaluation and maintaining optimal levels of all the performance characteristics that can be measured and controlled;
- Ensure the quality and transparency required in the relationship between structure / user.

Organizational pattern
The screening program for early detection of colorectal cancer is a Preventive action is active in inviting all residents in Umbria aged between 50 and 74 years to carry out a test for fecal occult blood every two years to conduct a study of colonoscopy in case of positive response to screening test, the program also provides the ability to insert in the course of screening those who do not receive a letter of invitation (accession spontaneous), provided that the target age group. The entire process can be divided into three basic stages that are described below with flowcharts.

STEP 1

1. SELECTION TARGET POPULATION MANAGEMENT AND ENTERTAINMENT EXTRACT registry lists by the city council REGIONAL HEALTH AND AGGREGATE FOR ASL and doctor at the moment of UPLOADED THE POPULATION TARGET

2. EXCLUSION OF PARTIES elegance through linkage with SDO FLOW, FLOW OUTPATIENT SERVICES AND DATA RTUP[1]

3. ENTER A LIST SCREENING CENTRES

4. PLANNING OF CALLS AND DISTRIBUTION OF SCREENING TEST for the biennium

5. ENTER LETTER OF INVITATION AND TEST KIT FOR THE IMPLEMENTATION OF THE POSTEL SERVICE THROUGH

6. **EXECUTION OF TEST[2]**

The invitation includes sending via Post a personal letter of invitation, signed by the their GPs (Family Doctor), the kit for occult blood and a brochure in which provides all necessary information about the program and path implementation of screening and testing, storage times and sent to the reading center.

NOTE - must also be excluded from the screening program, once identified, the subject to increased risk, but the means of identifying such persons and the path-depth diagnostic and therapeutic, will be defined by a group of work created ad hoc.

STEP 2
IMPLEMENTATION AND INTERPRETATION OF RESULTS

[1] Exclusion criteria include: occult blood test performed by less two years, endoscopy performed less than 10 years, history of colon cancer rectum; patients with serious debilitating or terminal illnesses, serious psychiatric patients, death or transfers
[2] The test used is that immunological latex agglutination quantitative, with cutoff of 100 ng / ml, to be performed at home by those responding to a single sample faeces without dietary restrictions and provides for automated reading

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Citizen test at home		no	recall after 3 months from first call[3] *
yes		yes	enter recall
kit with priority mail accession to lure the center of reading of asl			no
test done correctly		no	recall for technical reasons[4]
			enter the list not responders gps for possible recovery
yes			
reporting test			
positive		negative	
recall	gp	letter negative response	
second level diagnostic		control after 2 years	

NOTE: It 's recommended that meetings for the deepening of endoscopic Screening is carried out under endoscopic centers specifically reference identified by businesses and in sessions.
Legend: structures that have responsibility are:
Local Health Screening Center
ASL Lab
II° Level facilities are: ASL and Hospital

STEP 3 –
SECOND LEVEL DIAGNOSTIC

recall for depth accession	no	trails end[5] *

[3] If the subject does not send the kit to the reading center within 3 months after the screening center shall send a reminder and to invite the subject to make test kit already submitted or collected at health centers and can be expected to Return the kit in case people do not want to adhere to screening.
[4] People with inadequate outcome are invited to repeat the test by a letter (or phone) and resubmit the kit (or collection from pharmacies or health centers) Entities successful they are contacted, preferably by telephone, informed of the need to insights by colonoscopy, companies must organize a path involving GPs for intervention and counseling to ensure the person test positive
ease of access for the completion of screening facilities specially identified at the enterprise level.

[5] For positive individuals do not comply must be a custom rescue, Screening Center that will be implemented directly or by sending to the list of non-GPs participating in Level II

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yes			
execution colonoscopy			
full review		no	other controls[6]
yes			
reporting biopsy and histology			
positive for adenomas or ccr	negative for adenomas or ccr		
Proposal therapeutic plan[7]	included in the screening program, recall at 10 years		

Legend: structures that have the responsibility:
Local Health Screening Center
II° Level facilities are: ASL and Hospital
Pathology

EPIDEMIOLOGICAL INFORMATION SYSTEM AND EVALUATION

The information system for the evaluation process and outcome of the program Screening requires the compatibility and integration between the technology systems support such as software management of the screening program files of the health regional or business, the procedure post, the computer system read / reporting laboratory, for reporting of pathology and endoscopy. The network computer provides a server for each company that manages all data related to screening as specified in Annex A, each company must screening program record for each person involved a minimum set of variables, as reported
Annex B. The epidemiological evaluation of process and outcome providing for the establishment of regional level of an annual report by the calculation of key indicators identified.
And 'provided a link to the RTUP for the calculation of some indicators of outcome and any other investigation.

[6] In cases of incomplete colonoscopy is recommended in the absence of contraindications clinics, making a double contrast colon RX;
[7] The next step to include the correct positive diagnosis of staging and therapy until delivery of the subject for the operator is in charge of the follow up. At the end of the diagnostic documentation is delivered to the subject containing diagnostic conclusions, any treatment performed and the Board of control. It 'must be close liaison between Central Screening - Laboratory (The level) and corporate Endoscopy Services (Level II) for the return of information concerning the detailed diagnosis and treatment in the manner identified by
Regional Reference Center for Oncology (Cancer folder) to the second level must be received by the results of histological and Pathology treatments for inclusion in the database and sending the screening center. It provides the retrieval of information on Level II and III players who log structures extra-regional mobility through the flow of health (SDO).

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INDICATORS OF QUALITY AND RESULTS OF THE PROGRAM
Coverage (percent target population invited)
Participation rate (the I invitation and reminder)
Proportion of inappropriate tests Range tests negative (data reading) - report (reply) rate of positive test for fecal occult blood (Send a colonoscopy)
Interval positive test - sending in depth
Membership colonoscopy for cancer detection rate for adenoma detection rate (advanced / high risk) * PPV PPV for cancer adenoma (advanced / high risk) and
Location histological type of lesion distribution in stages of screen-detected cancers
Percentage of complete colonoscopies
Complications of colonoscopy interval indication and surgical intervention rate of interval cancers * Advanced adenoma: maximum diameter ≥ 1 cm or with villous or tubulo-villous histology, dysplasia or severe adenoma with high risk adenomas or advanced adenomas presence of three or more.

PROGRAMME OF ACTIVITIES 'FOR THE START OF SCREENING Colorectal: STATE PROGRESS AND CURRENT ACTIVITIES 'planned by 2005.
In the second year of operation of the Plan 2003-2005 was launched planning activities for the initiation of colorectal screening program, the actual commencement of program with calls to the people is planned for 1 January 2006. 30 April 2005, the progress of regional activities is as follows: It established an Organizing Committee / evaluation through the identification by the Companies Health and hospital organizational referents for the first and the second level of referents epidemiological and laboratory, and a committee composed of clinical contact for endoscopy, pathology, surgery, oncology, has been submitted and discussed with members of the committees an initial proposal on the path
organization for the screening have been identified in accordance with the Companies, the firm software provider for managing the screening program, and 'sought the detection by the Company of locations Screening Centers and Laboratories, and the Centers for Level II. The planning of activities for the launch of colorectal screening program by 2005 provides the following steps: By the end the first half of 2005 is expected to formalize the organizational course finalized the acquisition of software by businesses and the definition
Agreement with the Italian Post Office by the Region in the second half of 2005 Companies, in cooperation with the competent services of the Region, to put point the software architecture management, develop content, methods and tools for campaign and training. The first round of screening will be considered for testing, monitoring and evaluation annual biennial allow any adjustments or changes concerning the organization of program. For this reason, the agreement with the Italian Post Office, managed by individual companies will be concluded on the basis of a regional agreement, subject to evaluation conclusion of the first round. As for clinical protocols for the more detailed diagnosis, treatment and follow-up of test positive individuals screening and high-risk and quality criteria on which identify the structures of reference for the second level, the reference document is represented by the Guidelines on screening, early diagnosis and treatment multidisciplinary cancer colorectal Agency for Regional Health Services; in the above fields will therefore initiated several working groups, coordinated by Head of the Regional Reference Center for Oncology and made from referents for clinical screening, which will aim to implement the guidelines reference and verify its applicability to the regional level.

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ANNEX A)
DATA MANAGED BY THE COMPANY SERVER
Subjects eligible bachelor Invitations to non-responders to the invitation Subjects recalled after 3 months non-responders to the second call results of the screening test negative subjects
Subjects positive to be sent to Level II Subjects with inadequate test results of the Level II Subjects undergoing surgical treatment
Histological examinations for the endoscopic treatment and / or surgical

ANNEX B)
MINIMUM SET OF VARIABLES TO BE RECORDED FOR EACH INDIVIDUAL
Screening tests
Name and surname entity called
Subject identification code (tax code)
Date and place of birth
Sex
Place of residence address and ZIP code
Details
Exclusion Code
Submit Date
Kit items unusual for postal reasons
Specimen Collection Date
Acceptance date sample date reminder
Date reading screening tests
Screening Test Result
Reply mail or telephone
Medical Reference
Barcode and / or examination number

Further diagnostic
Examination date identifier of the individual
Day colonoscopy examination
Operator code colonoscopy
Quality of the endoscopy: Optimal, Fair, adequate, impossible inappropriate, can not
Record any biopsy and polypectomy
Registration complications (optional): post-polypectomy bleeding, other drilling
Recording any other diagnostic investigations: polyps (number) for each polyp indicate:
Head diameter endoscopic gross appearance (sessile or pedunculated)
Histology (histological type and grade of dysplasia)
therapy performed (endoscopic / surgical)
Cancer Therapy Histology performed at the macroscopic appearance
Staging
Diagnostic Conclusions

Survey 2006

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Those who have carried out a test for colorectal cancer according to the guidelines?
• 27% of respondents between 50-69 years report to have done the research of occult blood (11%) or sigmoidoscopy (9%) or both tests (8%) as a preventive measure.
• The percentage is significantly higher among men, while no significant differences are observed by age and education level.
• 17% had one of these two investigations in the last two years as recommended.

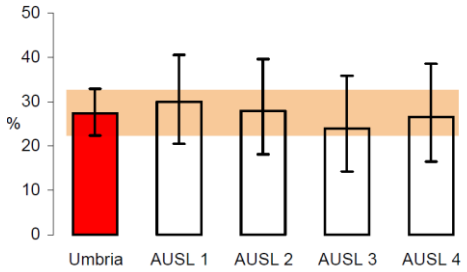
Screening cancro colon retto (50-69 anni)

Caratteristiche		% di persone che hanno eseguito un test* per motivi preventivi
Totale		**27,3** (IC95%:22,4-32,9)
Classi d'età	50 - 59	23,7
	60 - 69	31,9
Sesso ^	Uomini	33,6
	Donne	20,6
Istruzione**	Bassa	28,0
	Alta	26,2

* sangue occulto o sigmoidoscopia
** istruzione bassa: nessun titolo, licenza elementare licenzia media inferiore; istruzione alta: da scuola media superiore
^ le differenze risultano statisticamente significative (p<0,05)

- There are no significant differences between the different AUSL.

Persone che hanno eseguito almeno un test per motivi preventivi (50-69 anni)



Survey 2009

- 47% of people (range of 50-69 years) reported having carried out an examination for early detection of colorectal cancer, according to the guidelines (occult blood test every two years or colonoscopy every five years).
- The estimated coverage is slightly above the level of coverage "acceptable" (45%) and still far from the "desirable" (65%).
- Making an early diagnosis of colorectal cancer is higher among 60-69 and those who report fewer economic difficulties.

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- An analysis by appropriate statistical technique (logistic regression) the effect of each factor in the presence of all others, remains the significance for age and instead highlights the association with the school as having the qualifications.

Diagnosi precoce delle neoplasie Colon-retto secondo le Linee Guida (50-69 anni)
Umbria - PASSI 2009 (n=554)

Caratteristiche	Sangue occulto / colonscopia ° %	*(IC95%)*
Totale	**46,7**	*42,5-51,0*
Classi di età		
50 - 59	39,2	*33,3-45.1*
60 - 69	53,9	*47,9-59,8*
Sesso		
uomini	43,2	*37,2-49,2*
donne	50,1	*44,2-56,1*
Istruzione		
nessuna/elementare	45,7	*38,0-53,3*
media inferiore	44,5	*36,6-52,4*
media superiore	51,4	*43,7-59,1*
laurea	42,9	*30,4-55,4*
Difficoltà economiche		
molte	35,2	*23,4-47,0*
qualche	45,7	*39,2-52,3*
nessuna	50,7	*44,5-56,9*
Cittadinanza		
italiana	47,1	*42,8-51,4*
straniera	37,4	*13,8-60,9*

° in assenza di segni o sintomi
* p<0,05

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