Provincial Health Services Authority - BCCDC

2002/03 Budget Management Plan ($millions)

	Total
2001/02 Projected Expenditures	56.6

2001/02 Projected "Structural" Surplus/Deficit before restructuring and 1-time costs	1.0
1-time costs	-
Restructuring Costs Recognized in 2001/02	(0.8)
2001/02 Revised Projection	0.20

(note: Do not include MOHS's proposed funding to cover this years deficit)

	2002/03		2003/04		2004/05	
	$	FTE's	$	FTE's	$	FTE's
Projected Surplus / (Deficit) Prior to Management Reduction Strategies	(2.2)		(1.2)		(0.7)	
	-					
Management Reduction Strategies:	-					
	-					
Revenue Generation	-					
1. Additional funding from MoHS	0.8					
2. Life support - drugs	-					
3. Patient Charges	-					
4. Other	0.2		0.1		0.1	
General Efficiencies (non-clinical)	-					
1. Exec/Admin (CEO, direct reports, exec)	-					
2. Shared Services	-					
3. Outsourcing	-					
4. Business Systems	-					
5. Workplace Initiatives	0.2	2.0	0.2	2.0	0.1	1.0
Best Practices (clinical)	-					
1. Alternatives to Care						
2. Clinical Efficiencies	1.1	8.0	0.9	13.5	0.5	11.0
3. Environmental & Protection	-					
4. Bed Consolidations (no access reduction)	-					
	-					
	-					
Program Adjustments/Closures	-					
1. Bed Reductions						
2. Facility/bed conversions						
3. Facility Closures						
4. Program Consolidation	-					
5. Program Reduction	-					
6. Selected Programs	-					
7. Selected Sites	-					
	-					
Total Management Reduction Strategies	2.2	10.0	1.2	15.5	0.7	12.0
Strategies as a % of 2001/02 Expenditures	0.0		0.0		0.0	
Revised Projection Surplus (Deficit)	-		-		(0.0)	

Provincial Health Services Authority

Detailed Three Year Plan and Impact Analysis
Fiscal Years 2002/03, 2003/04, 2004/05

BC Centre for Disease Control
Specific Reduction Strategies
Total 3 Year Reductions - $3,300,000

REVENUE GENERATION

1. **Increase revenue generation** – 3 Year Total - $400,000

   - *Time Line*
     - 02/03 - $ 200,000
     - 03/04 - $ 100,000
     - 04/05 - $ 100,000
     -
   - *Description*
     - Increase revenue centre wide. TB Control will charge for Skin Testing, excluding those for close contacts or those recommended by policy and for Immigration Consults. Labs will rent out part of the Level 3 lab, charge for Immigration and Insurance testing, and charge Federal Corrections for RCMP testing. Other sources of revenue generation will also be explored.

SUPPORT SERVICES

1. **Centre-wide Administration** – 3 Year Total - *$420,000*
   - *Timeline:*
     - 02/03 - $150,000
     - 03/04 - $200,000
     - 04/05 - $ 70,000
     -
   - *Description*
     - Corporate services restructuring, including shared services.

   - *Human Resources*
     - 02/03 – 2.0 FTEs
     - 03/04 – 2.0 FTEs
     - 04/05 – 1.0 FTEs

BEST PRACTICES -CLINICAL

1. **Diagnostics** – 3 Year Total - $1,360,000

   - *Time Line*
     - 02/03 - $460,000
     - 03/04 - $470,000
     - 04/05 - $430,000
     -
   - *Description*
     - Reduction of Laboratory Services Costs by implementing reduction to staff (including 3 scientists, and 1 microbiologist) and supplies. Will partnership with other Laboratories, both Hospital and Private Labs, to reduce the cost of Laboratory testing for the Province. Cost for contracting out will offset some of the salary savings. As discussions and decisions are made on Laboratory Restructuring in the Province the estimated FTE impact may change, but the $1,360,000 savings over the three years is anticipated to occur.

- *Human Resources*
  - 02/03 – 6.0 FTEs plus 3 Scientists and 1 Microbiologist on Contract
  - 03/04 – 11.0 FTEs
  - 04/05 – 11.0 FTEs

- *Access and Quality*
  - No significant changes in quality and access to laboratory services.

- *Utilization Management*
  - Reduction in laboratory services costs through utilization reviews and review opportunities for private sector relationships, and other revenue generation opportunities.

2. **STD Control** – 3 Year Total - $ 500,000

- *Time Line*
  - 02/03 - $300,000
  - 03/04 - $100,000
  - 04/05 - $100,000
  -
- *Description*
  - Support to agencies and health authorities for STD Control, research and education will be reduced. The Outreach program will discontinue providing primary care and leave it to the Agencies who's mandate it is. The focus will be to rapid response to outbreaks, and for cutting edge public health research.
  -
- *Human Resources*
  - No major impact to staffing. There is a possible reduction of a couple of employees during the three year period.
  -
- *Access and Quality*
  - No impact. If financial savings are difficult to reach in other areas, clinic hours may have to close during the evening and on Saturday.
  -

3. **TB Control** – 3 Year Total - $ 220,000

- *Time Line*
  - 02/03 - $ 90,000
  - 03/04 - $130,000
  -
- *Description*
  - Reduction based on restructuring of support staff and the implementation of the PHIS system.
  -
- *Human Resources*
  - 02/03 – 2.0 FTEs
  - 03/04 – 2.5 FTEs
  -
- *Access and Quality*
  - No impact. If financial savings are difficult to reach in other areas, clinic hours may have to be reduced.

4. **Biological Management** – 3 Year Total - $400,000

- *Time Line*
  - 02/03 - $200,000
  - 03/04 - $200,000
  -
- *Description*
  - Fully implement best practice of biological management by controlling distribution of biologicals to the field, ensuring products are returned by the field and credits are received by the suppliers for expired, damaged or overstock vaccines.

  - There is a risk that vaccine programs, our number one priority, will need to be restricted if cost increases are more than 2% each year. If that were the case some adult programs would be reduced rather than decreasing the infant or children programs

- *Human Resources*
  - No impact to staffing
  -
- *Access and Quality*
  - No impact. If demand increases alternatives would be reviewed.

MAJOR FUNDING CONCERNS

1. Funding for Physician/Pathologists salary increases. Salary increase is not currently in the budget.

2. Increase demand for biological/drug could be a challenge to offset over the next three years, as well as any expansion of the vaccine program.

3. Disease Outbreaks - Hopefully the Ministry will continue to fund the additional vaccines and related cost related to any major communicable disease outbreak

4. To find funds for all Capital Items will be a challenge or maybe impossible. The Capital Funding will be extremely difficult to manage. The current 3 Year Plan submitted to the Ministry, which was not approved, included $1,737k, $3,650k, and $2,760k for the three years.

5. BCCDC is still anticipating funds for the underfunding of wage agreements due to incorrect reporting by the Vancouver Coastal Health Authority. Funding is also required for current HEABC reclassifications with retros as far back as Sep 97.

TOTAL ESTIMATED FTES AFFECTED

Staffing at BCCDC will be reduce by about 10 FTEs, 3 scientists and 1 microbiologist in 2002/03, 15.5 FTEs in 2003/04, and 12 FTEs in 2004/05. The reductions will be throughout the organization. As discussions and decisions are made on Laboratory Restructuring in the Province the estimated FTE impact may change. Currently the estimated reduction of FTEs in Labs is 6 FTEs in 02/03,and 11 FTEs in both 03/04 and 04/05.

ASSUMPTIONS:

1. In 2001/02 BCCDC will expense approximately $800k to cover severance costs for impacted positions during the 02/03 fiscal year.
2. BCCDC to receive funding in 2002/03 to partially address wage escalation. Preliminary forecast for BCCDC is estimated at $817k.
3. Assume zero funding increases for 2003/04 and 2004/05
4. Authorities are required to break-even over the 2-year period 2002/03 and 2003/04. Therefore any deficit incurred in the first year (which the MOHS will allow) must be offset by a corresponding surplus in the second year. 2004/05 will operate at a balanced budget.
5. The new capital funding policy issued by the MOHS will require future operating, debt service and amortization of capital expenditures to be covered within the PHSA operating budget allocation. Assume no effect to BCCDC.
6. Physician cost increments under the arbitration will be covered under a different envelope. BCCDC is assuming Pathologists increases will also be covered.
7. Projections include the "unfunded" sick/severance provision.
8. The following inflation estimates for non-wage expenditures have been used by BCCDC
   2002/03 2.0%
   2003/04 2.0%
   2004/05 2.0%
9. No compensation increases are projected for 2004/05
10. Assume no growth in MSP revenue for the 2002/03 to 2004/05 years.
11. PHSA has provided a 1% contingency funds by not allocating $10,000k of the new MOH funding for 2002/03 to the agencies.
12. Assume no funding is available for the related cost of restructuring or downsizing.
13. Assume the OOS (out of scope) compensation increases at 0%.
14. Assumes no increase in demand/ volumes.

ACTIVITY: Population Health and Wellness - BC Centre for Disease Control

BC Centre for Disease Control

The British Columbia Centre for Disease Control's (BCCDC) primary purpose is to serve as a co-ordinating body for the prevention, detection and control of "reportable" communicable disease as specified in the *Health Act*, Communicable Disease Regulations, and the *Venereal Diseases Act.* Registries are maintained by BCCDC for reportable cases of communicable disease.

The British Columbia Centre for Disease Control monitors, evaluates and reports on communicable disease; develops and recommends policies and procedures for control of communicable diseases; provides diagnostic clinic services for sexually transmitted diseases, HIV and tuberculosis; conducts specialized diagnostic, reference and referral laboratory testing; provides consultation, training and education services; provides pharmaceutical services, and arranges for the distribution of vaccines and other biologicals in the province. Program services includes Laboratory Services, Sexually Transmitted Disease (STD/AIDS) Control, Tuberculosis Control, BC Hepatitis Services, Epidemiology Services, and Pharmacy.

Laboratory Services

Laboratory Services provides state-of-the-art diagnostic, reference and referral microbiology testing, consultation, research and education to support the control of communicable disease in British Columbia.

Laboratory Services include medical advice and consultation, laboratory testing for disease caused by bacteria, fungi, parasites, viruses or other communicable agents, and the related services of immunology, serology, and environmental microbiology.

KEY FUNCTIONS

Laboratory Service Activities, 1997/98 – 2000/01					
	1997/98	**1998/99**	**1999/00**	**2000/01**	**2001/2002* Estimate**
Laboratory Reports	677,346	638,537	668,541	693,372	889,437
Workload Units	10,706,282	11,667,649	14,673,109	15,474,617	15,719,956

Note: Each Laboratory Report is based on a different number of tests, each of which has a predetermined workload activity. Laboratory report numbers do not include external contract tests.

- Electronic reporting of laboratory results to health authority staff, physicians and health care institutions, results in faster laboratory testing turnaround times and quicker reporting results.

% Total Workload Units Per Laboratory Section, 2000/01	
Laboratory Section	**% of Workload Units**
General Bacteriology	14.3
Non-Viral Serology	17.8
Virology	33.0
Parasitology	5.0
Environmental Bacteriology	9.9
Enteric Bacteriology	5.7
TB Mycology	14.3
TOTAL	**100%**

* 2001/2002 Laboratory reports counting method was changed. Copies of reports to multiple physicians are now included.

BC Hepatitis Services

Established in January, 2001, to co-ordinate implementation of new programs, BC Hepatitis Services provides an integrated approach to dealing with the issues of hepatitis prevention and control.

By focussing on facilitation and co-ordination of the activities of service agencies and community groups, BC Hepatitis Services helps to eliminate needless duplication of effort and works to ensure equity of access to services for all British Columbians. Working with partners in the community, in institutions and at all levels of government, and with other divisions within BCCDC, BC Hepatitis Services supports community and professional education, state of the art diagnosis, tertiary prevention initiatives and research.

Information is our primary tool. Development of secure, confidential databases accessible, with the informed consent of the subjects, to those who need information to improve care and prevention measures and for research purposes is a goal of the division.

KEY FUNCTIONS

Activity	Jan 2001 - Mar 2001
Establishment of co-ordinating structure – BC Hepatitis Services	complete
Meetings of Provincial Hepatitis Advisory Group (PHAC)	2
Meetings with Community Representatives	11
Joint Application design session for informatics mapping	1
Development of BC Hepatitis Services website, stage 1	completed
Standing committee for guideline review	established
Pilot clinical care management database, including molecular testing, for outcomes evaluation	complete
Initiation of Universal Infant Immunization Program	complete
Initiation of immunization program for children at higher risk	complete

Sexually Transmitted Disease (STD/AIDS) Control

Sexually Transmitted Disease (STD/AIDS) Control co-ordinates province wide efforts to reduce the spread of sexually transmitted diseases (STD's) such as HIV/AIDS, gonorrhea, syphilis, pelvic inflammatory disease, and chlamydia, and to minimize their adverse health effects in British Columbia.

Support is provided to public health practitioners and physicians in the province through expert consultation and advice on the prevention, screening, diagnosis, treatment and case management of sexually transmitted disease and through the provision of education resource materials and specialized training. A "walk-in" clinic is available to the public for testing and treatment of STDs and a Street Nurse Program in Vancouver targets street-involved individuals such as injection drug users and those involved in the sex trade, and other high risk individuals such as the gay male population, aboriginals, and immigrants.

KEY FUNCTIONS

Patient Visits, 1994 – 2001, British Columbia

	1994	1995	1996	1997	1998	1999	2000	2001
STD Clinic	7,959	7,962	8,040	7,919	7,468	12,050	11,450	9883
ATEC Clinic	6,154	6,368	6,284	5,846	5,617			
Street Program	31,778	39,429	40,833	48,484	51,611	54,792	65,314	58227

- In 2001, there were 22,806 phone calls for STD and AIDS combined.

Number of Reported Cases of Communicable Disease, 1993 - 2001, British Columbia

	1993	1994	1995	1996	1997	1998	1999	2000	2001
AIDS	296	295	252	156	150	145	114	105	27
Gonorrhea	550	489	492	488	458	541	878	724	611
Infectious syphilis	16	17	18	18	50	112	127	96	177

Note: AIDS cases for include only those reported to date. Infectious syphilis includes the primary, secondary and early latent stages

- Modular STD training sessions for health care providers are provided at the regional level.
- The STD Core Program document has been accepted and supported by the Provincial Health Officer as a goal for provincial STD care.

AIDS – New and Cumulative Reports 1993 – 2001, British Columbia

	1993	1994	1995	1996	1997	1998	1999	2000	2001
New	294	291	251	156	146	144	111	88	27
Cumulative	1810	2105	2357	2513	2663	2808	2922	3027	3054

Tuberculosis Control

Tuberculosis (TB) Control serves as the provincial referral centre for tuberculosis prevention, control, treatment and case management. TB Control ensures early and prompt treatment of all newly diagnosed active cases and aims at a progressive reduction in the annual incidence rate of TB and the associated rate of mortality in British Columbia.

Clinics operating in Vancouver, New Westminster and Field Operations provide services to locations throughout the province. Clinics perform client diagnostic and survey screening consultations, concentrating on groups with high prevalence of disease such as immigrants, the socially and economically depressed, aboriginals, and particularly those with added risk factors such as substance abuse. Note: Capital TB Clinic is operated by Capital Health region and serves Capital population - Capital TB Clinic service statistics (patient visits, x-rays taken for immigration applicants and refugees, x-rays taken for community surveys) are not included below.

KEY FUNCTIONS

TB Control Service Statistics 1996 – 2001, British Columbia						
	1996	**1997**	**1998**	**1999**	**2000**	**2001**
# of active cases notified	321	416	337	332	290	385*
# of preventive drug treatments	742	1,035	808	732	1,238	611*
# of patient visits	40,483	36,775	26,441	27,064	27,470	27,881
# X-rays taken for immigration applicants	n/a	1,364	1,455	1,668	3,251	1,763
# X-rays taken for community surveys	n/a	572	376	296	180	246
# of active cases in status Native Indians (on and off reserves)	29	35	37	26	22	30*

*Projected

Cases of Active Tuberculosis 1992 - 2001, British Columbia										
	1992	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
# of Cases	335	346	332	312	321	416	337	332	290	385*
Cases per 100,000 pop'n	10.1	9.6	9.0	8.2	8.1	10.7	8.4	8.3	7.1	9.4*

*Projected

- In 2001, 84% of the total active cases of TB cases were foreign born (excluding 21 cases where country of birth is unknown).
- Those completing preventive treatment against infection becoming disease, can expect a near 100% benefit, and those completing an adequate course of treatment, can expect a near 100% cure without future relapse.
- Early diagnosis and preventive programs for high-risk immigrants and those with HIV infection, the highest factor for the progression of tuberculosis from infection to disease, will help reduce disease in these high-risk segments.
- Screening of all immigrant applications and refugee claimants from within the province ensures timely identification and exclusion of activity in this high-risk group.

Epidemiology Services

Epidemiology Services conducts surveillance, investigates and evaluates the occurrence of reportable and other communicable diseases in British Columbia such as vaccine preventable, enteric, zoonotic and invasive bacterial diseases, viral hepatitis, emerging pathogens and others.

Staff evaluate trends of communicable disease, determine conditions which may cause outbreaks, initiate control procedures for reducing the spread of the disease, and develop strategies to prevent outbreaks. Their findings are communicated to public health officials, institutions and communities.

Epidemiology Services is responsible for the development, implementation and evaluation of policy and programs for communicable disease prevention and control in British Columbia. Staff are the key source of consultation for those involved in communicable disease prevention, control and research. The Division is the provincial reporting centre for reportable cases of communicable disease.

A key strategy for controlling communicable disease in the province is the immunization of children and high risk groups against vaccine preventable disease. Immunization is a highly cost-effective intervention for preventing disease. Vaccines and other pharmaceuticals to support these and other disease control programs are acquired and distributed by the Division to the regional health authorities.

In conjunction with the University of British Columbia and Health Canada, Epidemiology Services is a training site for Federal Field Epidemiologists.

KEY FUNCTIONS

Reported Cases of Communicable Disease, 1994 – 2000, British Columbia

	1994	1995	1996	1997	1998	1999	2000	2001
Amebiasis	311	315	375	333	304	312	288	347
Campylobacteriosis	2996	2710	2595	2557	2771	2618	2569	2100
Diphtheria: Acute	0	1	0	0	0	1	0	0
Diphtheria: Carrier	0	0	0	2	0	0	0	1
Giardiasis	1376	1420	1281	1164	1080	1014	939	833
Haemophilus Infl. B: Meningitis (invasive)	4	1	3	2	0	1	1	2
Hepatitis A	261	378	481	360	385	349	137	96
Hepatitis B: Acute	233	233	224	221	194	143	113	98
Hepatitis B: Chronic carrier	1864	1947	2039	2381	2456	2660	2643	2494
Hepatitis B: Unknown/undetermined	1040	1217	925	501	494	466	191	236
Hepatitis C	1912	4662	6218	7840	3698	5089	4470	4421
Malaria	96	217	348	302	44	50	33	40
Measles: Rubeola (Red)	30	15	39	274	2	8	42	23
Meningococcal meningitis	25	16	20	19	7	20	12	20
Meningococcal septicemia	18	26	16	13	7	8	12	29
Mumps	47	35	46	139	18	19	17	25
Pertussis	395	438	959	724	369	543	1812	643
Rubella (German Measles)	36	26	19	5	4	3	2	2
Salmonellosis: Enteric	842	859	820	644	651	687	689	678
Salmonellosis: Other	20	11	7	2	9	25	11	9
Shigellosis	232	231	196	275	247	196	215	251

Note: Numbers may increase due to late reporting.

- Immunization is the most effective way to protect children from many communicable diseases.
- British Columbia meets or exceeds all National Advisory Committee on Immunization recommendations for immunization, except for pneumococcal immunization.

Pharmacy Services

The Provincial Pharmacy provides high-quality pharmaceutical services for all patients served by Sexually Transmitted Diseases, Tuberculosis Control and Epidemiology Programs. These services result in optimal patient outcomes in an environment that encourages excellence, teamwork, innovation and continuous improvement.

Pharmacy services include personal prescription services to all patients receiving treatment for tuberculosis and leprosy and client-related services for the release of drugs for sexually transmitted diseases. Since October 2001, pharmacy also manages the release of biologicals to public health affiliates. Up to December 15, 2000, Pharmacy Services was providing renal pharmaceutical care on behalf of the Provincial Renal Agency (PRA, formerly known as Kidney Dialysis Service, KDS). This program has now devolved to the regional community pharmacies and consequently, volumes were reduced from fiscal 2001/02.

KEY FUNCTIONS

Prescriptions Dispensed by Program Area, 1995/96 – 1999/00, British Columbia		
	2000/01	**2001/02**
Individual Treatment Units	8920	8572
Refills	22,355	14,383
New Prescriptions	11,122	4380
TOTAL	**42,397**	**27,335**

Note: Pharmacy has implemented a new computerized system in 2000/01 which accounts for prescriptions in a different manner then the previous method. Thus, figures of prescriptions dispensed by the pharmacy only start from the fiscal year 2000/01.

SUB-GOAL #1 (2002/07)	**Optimize immunization coverage of publicly funded infant and childhood immunization programs (target of 95% coverage at age 2 and kindergarten) for indicated vaccines.**			
OBJECTIVE (2002/03)	***Create utilization reports***			
	WHO	HOW	WHEN	EVALUATION MEASURE
	Pharmacy and Epidemiology	Create reports on childhood vaccination utilization rates; vaccines evaluated include diphtheria, tetanus, polio, hib, measles, mumps, rubella and hepatitis b.	1) Quarterly 2) Year to date	1) Number of vaccines shipped according to the various health regions 2) Cost associated with those shipments.
SUB-GOAL #2 (2002/07)	**Increase coverage of publicly funded adult immunization programs (target of 95% coverage) for indicated vaccines.**			
OBJECTIVE (2002/03)	***Create utilization reports***			
	WHO	HOW	WHEN	EVALUATION

				MEASURE
	Pharmacy and Epidemiology	Create reports on adult vaccination utilization rates; vaccines evaluated include pneumococcal, influenza, hepatitis A and hepatitis B.	1) Quarterly 2) Year to date	1) Number of vaccines shipped according to the various health regions 2) Cost associated with those shipments.
SUB-GOAL #3 (2002/07)	**Eliminate syphilis by 2006 and achieve better control of gonorrhea and chlamydia.**			
OBJECTIVE (2002/03)	***Create utilization reports***			
	WHO	HOW	WHEN	EVALUATION MEASURE
	Pharmacy and STD Control	Produce reports on utilization rates of azithromycin, doxycycline, bicillin, cefixime and ciprofloxacin.	1) Period 2) Year to date	1) Number of prescriptions filled 2) Cost 3) Projected costs for the year
SUB-GOAL #4 (2002/07)	**Increase uptake and compliance of drugs used for the prevention and treatment of tuberculosis (target completion rates of 100%).**			
OBJECTIVE (2002/03)	***Pharmaceutical Care***			
	WHO	HOW	WHEN	EVALUATION MEASURE
	Pharmacy and TB Control	Provide patient education of medications used for prevention and treatment of tuberculosis infection and reinforcement of compliance with these medications.	1) Quarterly 2) Year End	1) Questionnaires to evaluate the patient's knowledge regarding the medications 2) Compliance at the end of their treatment course.

Health Service Redesign Plan
Current and Proposed Service Levels

B.C. CENTRE FOR DISEASE CONTROL

INDICATOR	Utilization/Workload				% Change	% Change	Target as Identified by HA			Comments
	Fiscal Year			2001/2002			Fiscal Year			
	1998/1999	1999/2000	2000/2001	Projected Year End	98/99 to 99/00	99/00 to 00/01	2002/03	2003/04	2004/05	
Laboratory Reports	638,537	668,541	693,372	890,000	5%	4%	900,000	900,000	900,000	
Workload Units	11,667,649	14,673,109	15,474,617	15,720,000	26%	5%	16,000,000	16,000,000	16,000,000	