

Information Technology Services - Medicine

Monthly Report

April 1997

Highlights and milestones

- Usage data from the Clinical Reporting System (CRS) were added to this report for the first time.
- Interactive searching of the Basis (Biomed) version of Current Contents was terminated, in a first step toward replacing that version of Current Contents with the Ovid version.
- Use of all major institutional resources continues to increase compared to last year.
- Use of Library NetMenu workstations has stabilized compared to last year.
- Overall use of the Help Desk has not changed significantly from March to April.
- There were major increases in calls to the Help Desk from March to April for new orders (76%, with increases in almost all types of orders) and administrative system problems (61%, primarily due to increases in calls about the AS/400, Project X and APS Bullet).
- Resolution of PC/printer problems and email/scheduling problems by the next day increased by 5 or more percentage points from March to April. Administrative systems problems, status requests and billing issues showed decreases in next-day resolution by 5 or more percentage points.
- Resolution of network problems, new orders, and administrative systems problems by the Help Desk decreased by 5 or more percentage points from March to April.
- The number of unique hosts (individual and mainframe computers) connecting to the Web has more than doubled from April 1996; the number of page requests has more than tripled.
- Technology Operations replaced the old Web server with a new one. RealAudio was installed on the new server
- There were no significant delays in electronic mail.
- Evaluation and Planning completed the Dynamic Host Configuration Protocol pilot. Administrative procedures are being developed.
- Evaluation and Planning, Desktop Support and Yale Telecommunications re-engineered the client network order process.

Information Technology-Medicine Monthly Report

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Applications

<u>Type of application</u>	<u>this month</u>	<u>Apr-96</u>	<u>% change</u>
CINAHL	487	311	57%
Core Biomedical Collection	1,210	165	633%
Clinical Reporting System (CRS)	730	458	59%
accesses per user per month	9	11	-15%
Current Contents	3165*	554	225%
Electronic mail (# messages sent)	572,553	337,167	70%
messages per user per day	3.6	-	-
HealthSTAR	533	218	144%
Medline	18,577	10,935	70%
searches per active user per month	6.1	-	-
Medical Center World Wide Web			
Medical Center home page	44,801	8,906	403%
Hospital home page	1,679	880	91%
School of Medicine home page	8,117	3,227	152%
Medical Library home page	13,860	6,382	117%

*As of 8/96, Current Contents usage includes automatic searches

Background information

Personal computers as of 11/96	
Electronic mail users as of 6/96	
Networked computers as of 3/97	
Full-time faculty, 1996-97	
Full-time faculty, 1996-97	
Medical & graduate students, 1996-97	
Residents & postdocs, 1996-97	
Full-time staff, 1996-97	
Nursing staff, 1996-97	
Number of beds, 1996-97	

Schools of Hospital Medicine & Nursing

2,200	7,000
1,000	4,089
1,575	3,625
-	1,370
-	1,370
-	1,155
440	1,090
3,625	2,230
1,312	-
900	-

z

Help Desk

	change from		<u>Type of call</u>	# of calls change from		resolved by Help Desk change from		resolved next day change from	
	<u>this month</u>	<u>last month</u>		<u>this month</u>	<u>last month</u>	<u>this month</u>	<u>last month</u>	<u>this month</u>	<u>last month</u>
Total calls	2577	5%	PC/printer	504	24%	58%	0%	82%	8%
Calls per day	117	0%	Network	456	1%	77%	-9%	84%	5%
% of ITS-Med clients using Help Desk	26%	-4%	New order	420	76%	42%	-28%	37%	-3%
# of callers	904	-5%	Email/Schedulin	287	-26%	95%	3%	90%	6%
# of Yale affiliates using Web page	468	-4%	Info	267	25%	100%	0%	97%	-1%
# of new network connects (approx.)	93	69%	Transfer	261	-12%	99%	-1%	99%	1%
			Admin systems	159	61%	51%	-18%	71%	-9%
Departments accounting for 5% or more of all calls			Status queries	152	-22%	95%	-3%	94%	-5%
	Internal Medicine		Billing	67	37%	82%	0%	55%	-17%
	Surgery								
	Pediatrics								

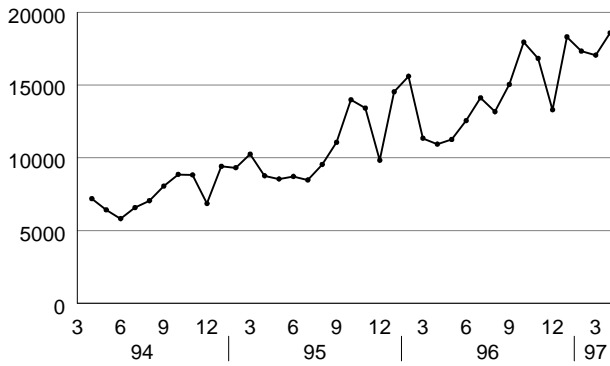
NetMenu workstations

<u>Type of application</u>	Library NetMenu # of connections			Hospital NetMenu # of connections			Nursing NetMenu # of connections		
	<u>this month</u>	<u>Apr-96</u>	<u>% change</u>	<u>this month</u>	<u>Apr-96</u>	<u>% change</u>	<u>this month</u>	<u>Apr-96</u>	<u>% change</u>
Medical Education	1,643	1,169	41%	-	-	-	-	-	-
Bibliographic databases & search tools	8,125	10,048	-19%	1,759	1469	20%	354	423	-16%
Full text & factual databases	244	568	-57%	2,131	1799	18%	23	25	-8%
Grant & research information	5	65	-92%	-	-	-	1	3	-67%
Clinical assistance	6	51	-88%	33	33	0%	6	1	500%
Email/news/networks	24,937	21,757	15%	9,601	6150	56%	507	619	-18%
Word processing & utilities	635	444	43%	1,403	1218	15%	-	-	-
Hospital information systems	-	-	-	25,144	18831	34%	-	-	-
Procedure recorders	-	-	-	408	371	10%	-	-	-
Total	35,595	34,102	4%	40,479	29,871	36%	891	1,071	-17%
connections per workstation	1,369	1,624	-16%	422	467	-10%	446	536	

Institutional Resource Usage

MEDLINE

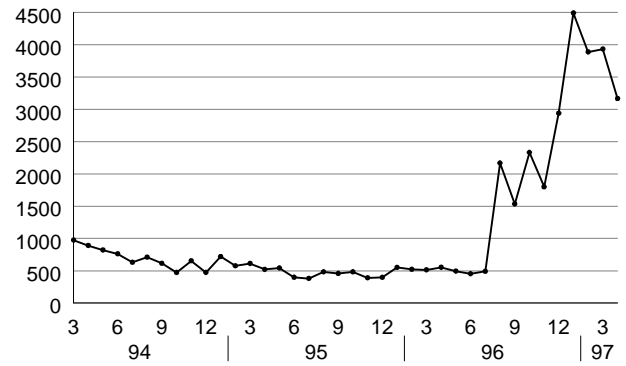
number of sessions per month



source: MEDLINE usage data

Current Contents

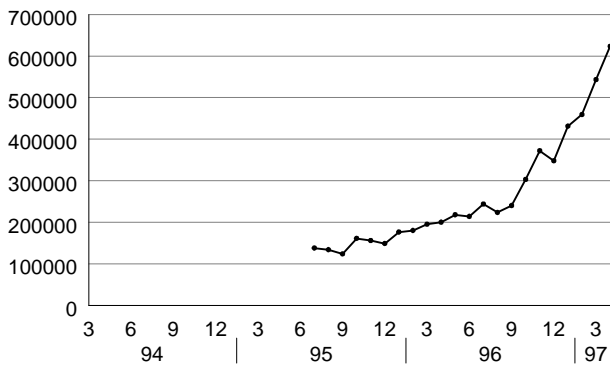
number of connections per month



source: Current Contents usage data

Medical Center Web server

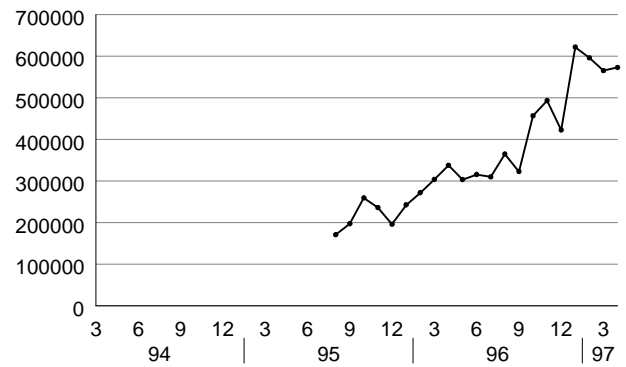
number of pages per month



source: WEB usage data

Electronic mail

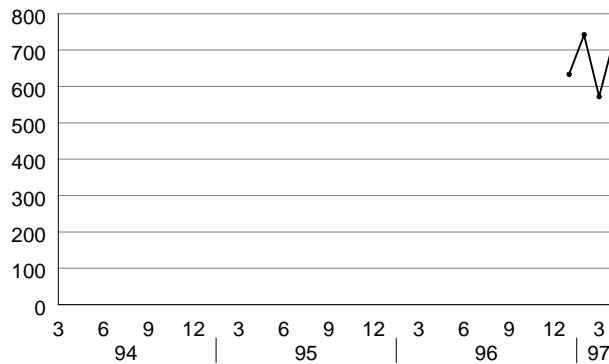
number of messages per month



source: PMDF usage data

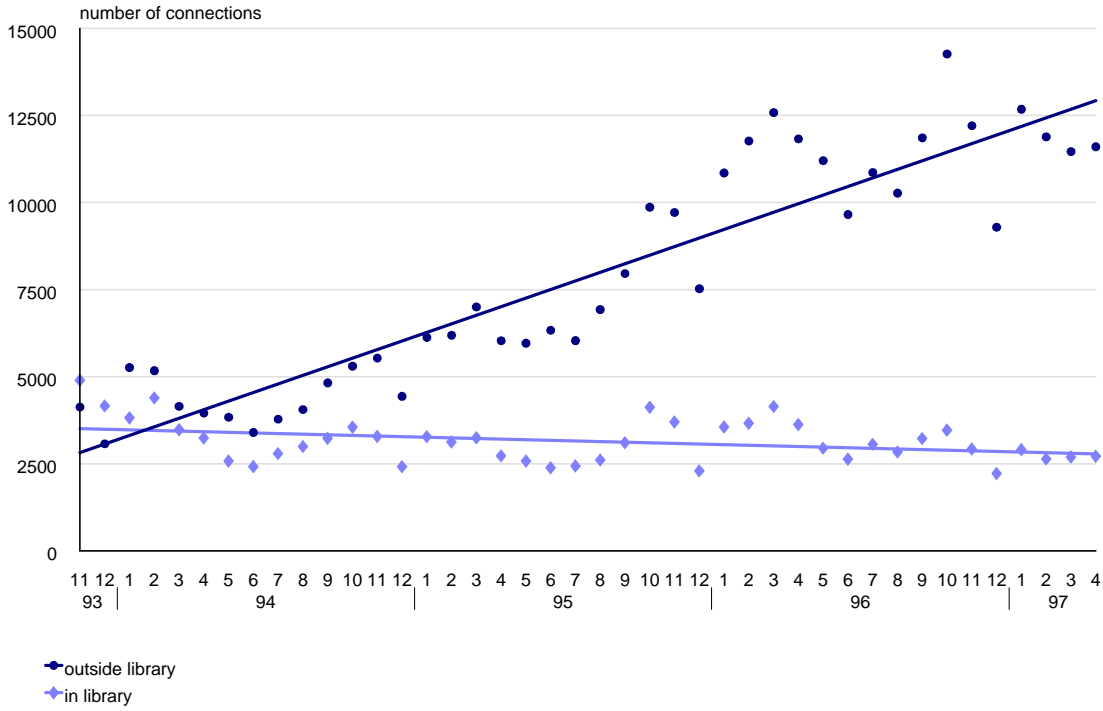
Clinical Reporting System

number of accesses per month

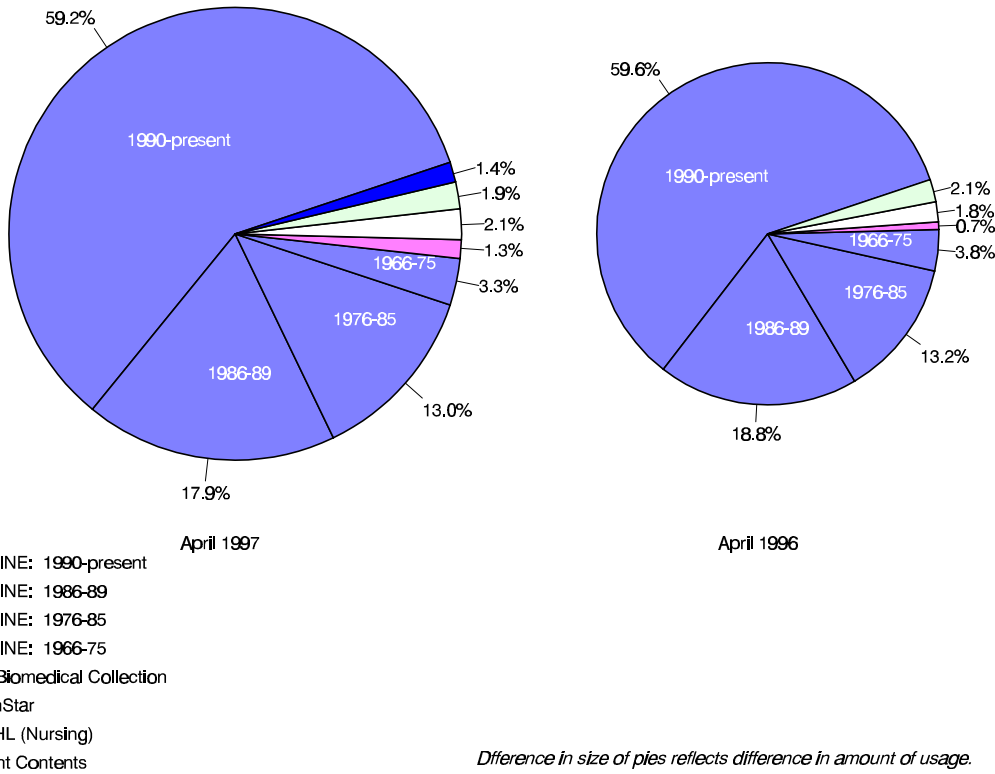


OVID usage

OVID usage over time
includes MEDLINE, CINAHL, HealthStar, and Core Biomedical Collection



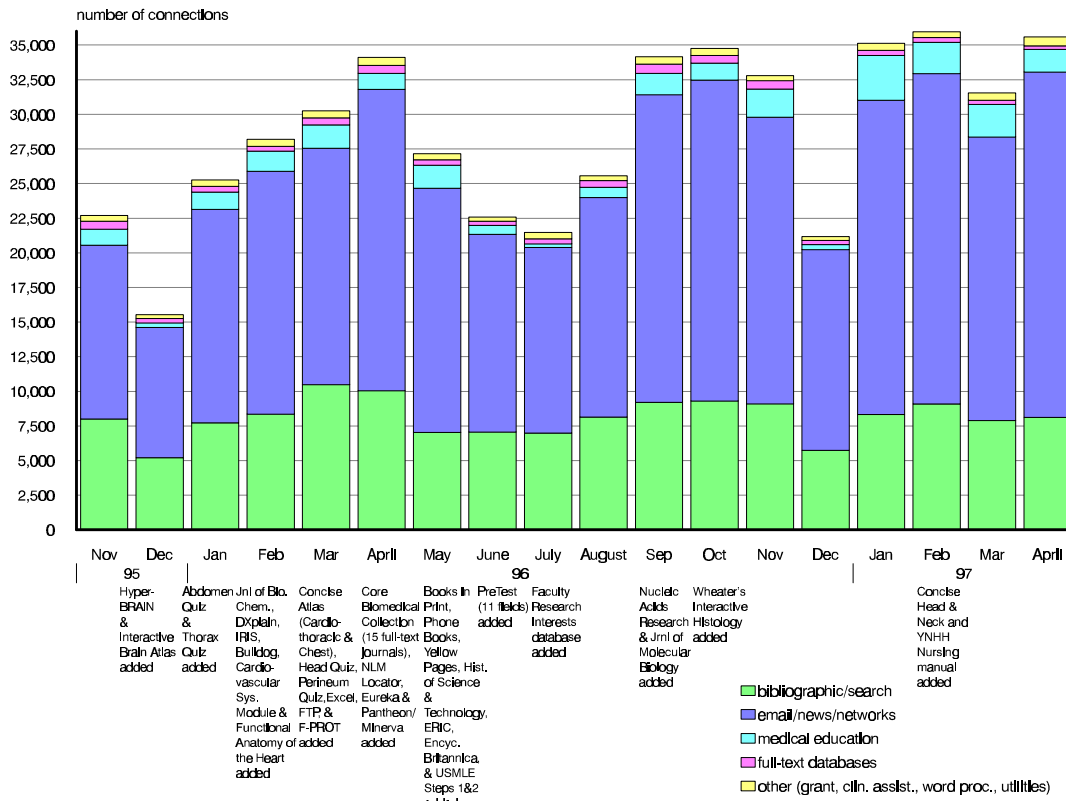
OVID usage
Breakdown of databases



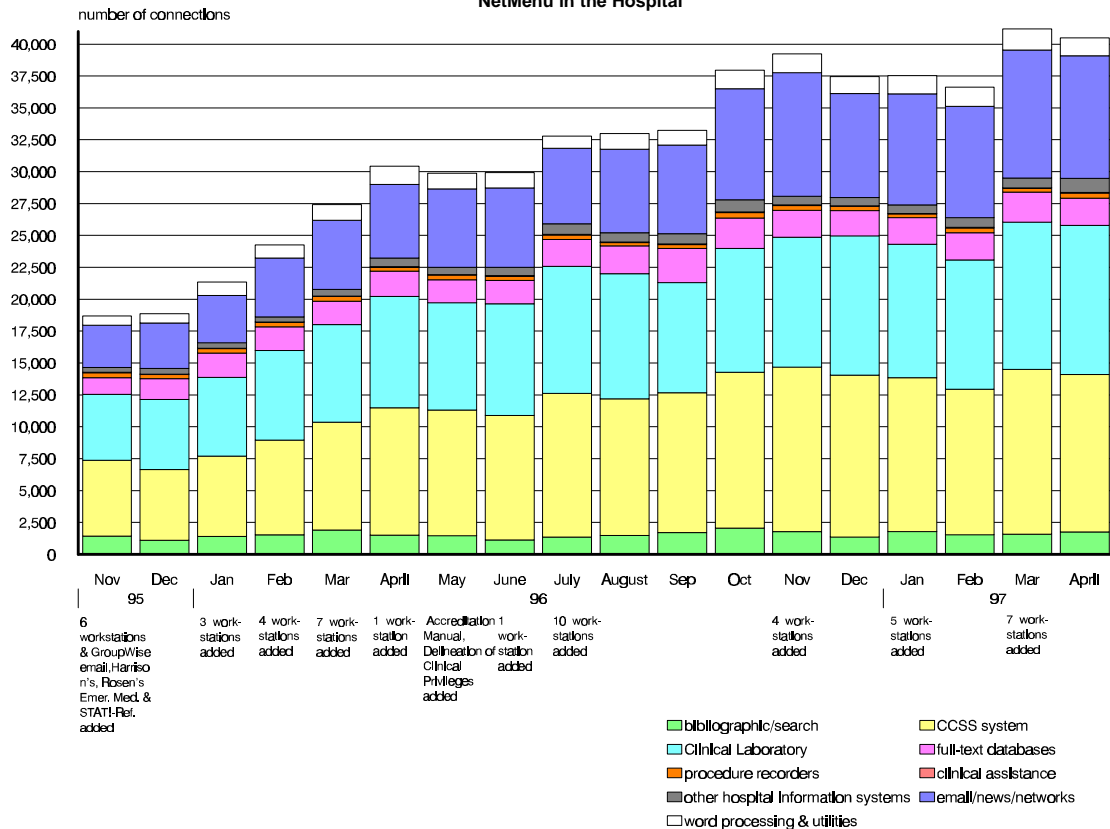
Difference in size of pies reflects difference in amount of usage.

NetMenu workstation usage

NetMenu in the Medical Library



NetMenu in the Hospital



Overall usage for selected databases

	<u>Apr-96</u>	<u>May-96</u>	<u>Jun-96</u>	<u>Jul-96</u>	<u>Aug-96</u>	<u>Sep-96</u>	<u>Oct-96</u>	<u>Nov-96</u>	<u>Dec-96</u>	<u>Jan-97</u>	<u>Feb-97</u>	<u>Mar-97</u>	<u>Apr-97</u>
Summary													
Current Contents*	554	494	454	491	2167*	1534*	2331*	1798*	2,937	4,489	3,886	3,931	3,165
MEDLINE	10,935	11,259	12,549	14,114	13,163	15,035	17,947	16,825	13,296	18,307	17,329	17,053	18,577
Medical Center Web server	200,197	218,039	213,995	243,844	223,670	240,165	303,126	372,135	347,928	431,339	459,226	543,310	623,284
Electronic mail messages sent	337,167	302,991	315,220	309,517	364,477	322,377	456,571	492,880	422,342	621,590	595,748	564,961	572,553

Details: OVID

1966-75 search sets	4,280	4,264	4,314	4,447	5,243	5,101	4,805	5,091	3,823	5,349	5,818	5,752	5,530
1976-85 search sets	14,996	16,766	16,462	20,241	19,270	20,888	19,234	18,694	15,755	20,618	21,255	22,001	21,843
1986-89 search sets	21,324	24,559	23,762	30,139	27,276	30,458	29,425	27,587	23,185	31,520	29,664	30,687	29,999
1990-present search sets	67,533	72,710	78,495	90,799	79,185	100,386	106,766	96,388	76,264	102,575	105,377	96,592	99,365
Core Biomedical Collection searc	789	945	1,922	3,725	2,351	2,520	2,043	1,870	1,912	2,197	1,841	1,960	2,152
HealthStar search sets	2,066	966	815	946	1,077	2,488	3,945	3,709	2,129	2,301	4,321	2,247	3,502
nursing search sets	2,366	2,078	1,612	1,541	1,075	2,828	3,795	3,543	1,972	2,904	3,645	2,703	3,175
access method: telnet sessions	-	-	-	-	-	-	-	-	11,725	15,781	14,668	13,785	14,558
access method: Web sessions	-	-	-	-	-	-	-	-	1,381	2,325	2,231	2,900	3,672
access method: Z39.50	-	-	-	-	-	-	-	-	-	215	434	363	323

Details: Current Contents

Current Contents total*	554	494	454	491	2,167	1,534	2,331	1,798	2,937	4,489	3,886	3,931	3,165
Ovid version	-	-	-	-	-	-	-	-	1,633	2,413	2,181	2,227	2,372
Basis version, interactive sessior	-	-	-	-	-	-	-	-	196	289	229	221	37
Basis version, automatic searche	-	-	-	-	-	-	-	-	1,108	1,787	1,476	1,483	756

*Current Contents usage includes automatic searches as of 8/96 and Ovid access as of 12/96

Medical Center Web usage report, April 1997

Top 10 pages accessed by Yale users

<u>this month</u>	<u>last month</u>
Medical Center	Medical Center
Medical Library	Medical Library
School of Medicine	School of Medicine
MedMenu	MedMenu
Server search	Medical Library's Internet search page
Desktop Support	Server search
Medical Library's Internet search page	Desktop Support
MedMenu's informational page about OVID	MedMenu's informational page about OVID
Scientific Affairs and Grant & Contract Administration	Scientific Affairs and Grant & Contract Administration
Medical Library's other Yale sites page	Course evaluations data entry page

Top 10 pages accessed by external users

<u>this month</u>	<u>last month</u>
Center for Advanced Instructional Media	Center for Advanced Instructional Media
Medical Center page	Medical Center page
School of Medicine	School of Medicine
Server search	Server search
School of Medicine's admissions viewbook	Medical Library
Medical Library	School of Medicine's admissions viewbook
Emerging Infections Information Network	Child Study Center's Autism/PDD Clinic
Child Study Center's Autism/PDD Clinic	Academic departments page
Yale-New Haven Hospital	Yale-New Haven Hospital
Academic departments page	Emerging Infections Information Network

	<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>
Server total	623,284	200,197	211%
Who connected			
Yale	152,671	33,575	355%
other US educational institutions	70,002	34,193	105%
US government & military	6,604	3,068	115%
US commercial institutions	110,928	42,013	164%
US non-profit organizations	5,364	2,616	105%
Major online service providers	74,588	17,368	329%
International	92,981	28,062	231%
# of unique hosts connecting	67,234	29,708	126%
Medical Center	41,023	8,906	361%
Yale-New Haven Hospital	1,613	880	83%
School of Medicine	7,125	3,227	121%
School of Nursing	682	-	-
Major resources			
School's organizational chart	39	-	-
Computing page	520	153	240%
Core research facilities page	181	151	20%
Education page	416	255	63%
Emerging Infections Information Network	2,007	1,295	55%
Faculty Research Interests database	891	520	71%
Medical Library	12,820	6,382	101%
MedMenu	3329	1190	180%
Scientific Affairs and Grant & Contract Ad	1,346	338	298%
School of Medicine application	1,039	252	312%
Yale Faculty Practice	518	-	-
Service departments			
Academic Computing	94	-	-
Biomedical Communications	310	326	-5%
C/AIM	4,584	3,824	20%
Center for Cell Imaging	356	172	107%
Desktop Support	1378	92	1398%
Medical Administrative Systems	66	339	-81%

	<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>
Academic Departments*			
Anesthesiology	389	234	66%
BBS	348	-	-
Boyer Center for Molecular Medicine	648	186	248%
Cancer Center	591	263	125%
Cell Biology	610	311	96%
Cellular & Molecular Physiology	269	126	113%
Child Study Center	475	-	-
Comparative Medicine	82	24	242%
Dermatology	605	240	152%
Diagnostic Radiology	815	162	403%
Epidemiology & Public Health	1549	982	58%
Genetics	816	383	113%
History of Medicine	117	48	144%
Immunobiology	275	-	-
Internal Medicine	307	236	30%
Laboratory Medicine	189	95	99%
Neurobiology	691	291	137%
Neurology	414	175	137%
Neuroscience Program	240	-	-
Neurosurgery	129	-	-
Obstetrics & Gynecology	286	151	89%
Ophthalmology	570	380	50%
Orthopaedics & Rehabilitation	153	-	-
Pathology	679	398	71%
Pediatrics	312	-	-
Pharmacology	284	119	139%
Physician Associate Program	424	-	-
Psychiatry	808	605	34%
Surgery	315	166	90%
Therapeutic Radiology	-	-	-

*Molecular Biochemistry & Biophysics and the Center for Medical Informatics are not listed because they reside on other servers.

Details for NetMenu Hospital usage

<u>Application</u>	total # of connections		
	<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>
Hospital information systems	25144	18831	34%
CCSS	12338	9854	25%
ChartView	528	109	384%
Clinical laboratory	11694	8405	39%
Diagnostic Imaging	172	150	15%
EPIC	242	195	24%
Surgical Pathology	170	118	44%
Bibliographic databases and search tools	1759	1469	20%
CINAHL	146	121	21%
Health Planning and Administration	29	60	-52%
MEDLINE	1498	1207	24%
Yale Library Catalog (OPAC)	86	81	6%
Word processing & utilities	1403	1218	15%
Clinical Workstation locations	45	85	-47%
Format disk	37	35	6%
Virus scan	24	32	-25%
Wordperfect	1297	1066	22%
Clinical assistance	33	33	0%
Coag Advisor	33	33	0%

<u>Application</u>	total # of connections		
	<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>
Full text and factual databases	2131	1799	18%
Delineation of Clinical Privileges	18	-	-
Harrison's	349	340	3%
JCAHO Accreditation Manual	8	-	-
Little Brown Handbooks	180	186	-3%
Merck Manual	62	101	-39%
Micromedex	1104	655	69%
New England Journal of Medicine	183	244	-25%
Red Book on Pediatric Infections	34	29	17%
Rosen's Emergency Medicine	41	45	-9%
STAT!-Reference	101	127	-20%
YNHH Physician Phone Book	51	72	-29%
Email/news/networks	9601	6150	56%
Biomed Email	813	665	22%
GroupWise Email	2111	761	177%
Internet access	6677	4724	41%
Procedure recorders	408	371	10%
Medicine	111	80	39%
Ob/Gyn	114	175	-35%
Surgery	183	116	58%

Details for NetMenu Medical Library usage

<u>Application</u>	<u>total # of connections</u>			<u>Application</u>	<u>total # of connections</u>			<u>Application</u>	<u>total # of connections</u>		
	<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>		<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>		<u>Apr-97</u>	<u>Apr-96</u>	<u>% change</u>
Bibliographic databases and search tools	8125	10048	-19%	Full text and factual databases	244	568	-57%	Medical Education	1643	1169	41%
AIDSLINE	12	18	-33%	AIDSTrials/AIDSDrugs/DIRLINE	0	6	-100%	Abdomen Quiz	41	38	8%
Biosis	42	105	-60%	Academic Press Journals	7	-	-	Anatomic Explorer	19	32	-41%
Books in Print	8	3	167%	American Journal of Medicine	7	14	-50%	Anatomic Explorer CT	10	23	-57%
CINAHL	22	39	-44%	American Journal of Obstetrics	0	-	-	Animated Embryo	23	16	44%
Current Contents	48	112	-57%	American Journal of Surgery	4	8	-50%	Brainstem	112	105	7%
ERIC	2	3	-33%	Annals of Internal Medicine	3	10	-70%	Brainstem Quiz	5	-	-
Eureka	7	10	-30%	Archives of General Psychiatry	1	11	-91%	Brainstorm	268	209	28%
Expanded Academic Index	19	30	-37%	BMJ	2	6	-67%	Breath sounds	11	10	10%
Health Planning and Administration	2	18	-89%	Britannica Online	8	3	167%	Cardiac Angio	12	13	-8%
InfoFinder	105	198	-47%	Canadian Medical Association Journal	2	2	0%	Cardiac Auscultation	40	16	150%
MEDLINE	4807	5629	-15%	Circulation	1	12	-92%	Cardiac Echo	14	10	40%
PsycINFO	140	267	-48%	Electronic Journals	7	-	-	Cardiac MRI	8	4	100%
Science Citation Index	141	118	19%	Faculty Research Interests database	10	-	-	Cardiac Perfusion Imaging: SP	3	4	-25%
Search term lookup	3	19	-84%	FREIDA	33	66	-50%	Cardiac Perfusion Imaging: PI	4	0	-
Yale Library Catalog (OPAC)	2767	3473	-20%	GenBank	3	20	-85%	Cardiothoracic Image Quiz	11	9	22%
Email/news/networks	24937	21757	15%	History of Science & Technology	22	1	2100%	Cardiothoracic Imaging	13	1	1200%
Biomed Email	13823	13633	1%	Journal of Biological Chemistry	3	6	-50%	Concise Atlas - Cardiothoracic	9	7	29%
Bulldog Access	22	30	-27%	Journal of Bone & Joint Surgery	1	1	0%	Concise Atlas - Chest	7	1	600%
MEDINFO (Yale-New Haven gopher)	-	8	-	Journal of Clinical Investigation	1	3	-67%	Concise Atlas - Extremities	6	-	-
NIH gopher	-	41	-	Journal of Molecular Biology	1	-	-	Concise Atlas - Head & Neck	4	-	-
Pantheon/Minerva	3118	295	-	JAMA	6	17	-65%	Embryo images	18	21	-14%
World Wide Web	7949	7750	3%	Lancet	5	5	0%	EPS Review	4	9	-56%
YaleInfo	25	0	-	Legislate	0	18	-100%	Extremities Quiz	11	5	120%
word processing & utilities (CRL)	635	444	43%	Micromedex	7	7	0%	Forebrain (Syracuse)	11	10	10%
Epi Info	10	13	-23%	MMWR	1	12	-92%	Gross Anatomy Review	28	19	47%
Excel for Windows	49	41	20%	Network Entrez	3	9	-67%	HARP (Histological Anatomy Review)	6	8	-25%
Format disk	10	18	-44%	New England Journal of Medicine	4	24	-83%	Head Quiz	24	6	300%
FTP for Windows	53	0	-	NEXIS	67	195	-66%	Histology Quizbank	22	9	144%
Health Risk Appraisal	2	7	-71%	Nucleic Acids Research	0	-	-	Histology Video Review	8	9	-11%
Virus Scanner (F-PROT)	12	11	9%	OMIM/GDB	1	8	-88%	HyperCELL	5	3	67%
Wordperfect for Windows	499	354	41%	Pediatrics	1	11	-91%	Hyperheart	16	4	300%
				Phone Books	17	57	-70%	Interactive Brain Atlas	50	51	-2%
				Science	11	9	22%	Interactive Respiratory Physiology	8	-	-
				Scientific American Medicine Consult	4	9	-56%	KINEMAGE	4	3	33%
				YNHH Nursing Organization and Practic	1	-	-	Lazy Eye	9	11	-18%
				Grant and research information	5	65	-92%	MacBaby	34	38	-11%
				Community of Science	1	-	-	Microbiology Quizbank	59	111	-47%
				CT CRISP	1	26	-96%	Neuroanatomy Review	50	41	22%
				IRIS	3	19	-84%	Neuron Model: Tutorial	3	6	-50%
				Clinical assistance	6	51	-88%	Neuron Model: Current Clamp	2	4	-50%
				Coag Advisor	1	4	-75%	Neuron Model: Voltage Clamp	5	10	-50%
				Physician Data Query (PDQ)	5	24	-79%	Pathology Quizbank	407	223	83%
								Perineum Quiz	5	4	25%
								PreTest (11 different fields)	52	-	-
								Superhead	22	14	57%
								Thorax Quiz	14	8	75%
								USMLE Step 1	119	27	341%
								USMLE Step 2	25	11	127%
								Wheatler's Interactive Histology	2	-	-