



FROM THE EXECUTIVE DIRECTORS DESK

Welcome to VHI! We are the pro-active, private and nonprofit legal repository of Virginia's licensed hospital Patient Level

Data Base System (PLDB). Since 1993 VHI has collected, analyzed and distributed the public use files (PUFs) as valuable health care information tools. Those who have used these flexible, easy to manipulate files under license to VHI have been satisfied with the results and many continue to obtain quarterly or yearly updates.

- This revised product directory has been redesigned to give you a brief background on the 780,000 discharges and over 3 million entries that comprise the data sets you will be licensing.
- Included are
 - A record layout of the PUF PLDB
 - A detailed data dictionary describing all aspects of available fields
 - A description and record layout of the five support files
 - Licensing Agreements, and
 - An Order Form

Because many of VHI's customers have multiple staff, department and location needs, VHI offers multi-site licenses. Some users generate revenue from reports derived from VHI's PLDB, so if you have potential multi-site or distribution opportunities, please see the appropriate section of the license agreement. VHI is proud to describe these products in the directory that follows and believe you will find this information important to you now and in the future.

Michael D. Lintelberg

ONE LICENSE WITH EITHER INDIVIDUAL,



MULTI-SITE WORKSTATION OR NETWORK INSTALLATION PERMISSIONS,



OR COMMERCIAL FEE OPTIONS



OVERVIEW AND VHI BACKGROUND

Virginia Health Information represents a partnership between the Commonwealth of Virginia and a coalition of all parties with a stake in health care. Through this public/private partnership, VHI is responsible for the collection, analysis, and dissemination of patient level data in the Commonwealth of Virginia. On July 1, 1993, hospitals in Virginia began collecting their inpatient discharge data. All hospitals submit their data to VHI in a standard format. After extensive editing and processing, VHI makes this data available to interested parties.

Virginia is the thirty-eighth state to pass legislation mandating the collection of patient level data. VHI turned this fact into a resource by studying other state programs and incorporating their successes into a plan for data collection and dissemination. As a new requirement, there have been many challenges for hospitals to submit complete and valid information. This challenge has been met, embraced, and supported by hospitals.

This catalogue contains descriptions of data products currently available. The design of these products has been to maximize the utility of this data and simultaneously maintain the confidentiality of individual patients. Data files can be licensed in two different formats on CD-ROM. VHI's effort has been aided by many people representing the groups that founded Virginia Health Information; businesses, consumers, hospitals, insurers, physicians, and state organizations. These data products are dynamic and will change to reflect availability of data elements not yet included in the data set.

DESCRIPTION OF DISCHARGE DATA FILES

PUBLIC USE FILE-PUF1 PATIENT LEVEL DATA

RESEARCH FILE-RES1 PATIENT LEVEL DATA

These files contain all submitted processed and verified inpatient hospital discharges in the Commonwealth of Virginia. Collected quarterly, the basis for these data is hospital-submitted billing claims forms. These forms are the National Uniform Billing (UB) 82 and 92. The UB-92 replaced the UB-82 and was phased in during 1993 and 1994.

GENERAL TYPES OF DATA FOUND ON THE DISTRIBUTION FILES

ADMINISTRATIVE data includes from where the patient originated, the urgency of the admission, when the patient was treated, and the hospital in which care was provided.

CLINICAL data available provides up to nine diagnoses and six diagnostic or surgical procedures. Virginia Health Information calculates the patient's length of stay as well as the number of days a patient is hospitalized before and after the reported principal procedure. Using the diagnosis codes, values are created which note if the patient has any reported comorbid conditions. These conditions are not the primary reason for the hospital stay but have been found to influence the length of time the patient is hospitalized, total charges, and other factors. A complication indicator is also calculated. The field patient status reports whether the patient was discharged to return home, transferred to another hospital, expired, or was discharged to another facility's care.

DEMOGRAPHIC data describe the patient's age; in days for newborns, years for patients one year or older. Information on the patient's gender and race (when available) are also collected. A five-digit patient zip code as well as the Virginia health planning

region and district code, county code, and state of the patient's residence allow for geographic analysis at many levels.

FINANCIAL data includes total charges for the stay as well as a series of 14 calculated groupings by type of care. These groupings are as general as room and board and as specific as charges for anesthesiology.

PHYSICIAN data provides the Unique Physician Identification Number (UPIN) of the attending and operating (where principal procedure is reported) physician who are primarily responsible for the care received by any individual patient. This data is available for discharges on and after April 1, 1996, where a validation survey confirmed at least a 90% agreement rate of physicians providing care and the identifier reported by facilities.

Data files of UPINs with provider names may be obtained from the federal government. To acquire the raw data (in either printed or electronic form), please write:

Superintendent of Documents, U.S.
Government Printing Office
Attention: Electronic Products Sales
Coordinator
P.O. Box 37082
Washington, D.C. 20013-7082

Electronic Products Sales Coordinator may also be contacted by:

Phone: (202) 512-1530
Fax: (202) 512-1262
Email: gpoaccess@gpo.gov

The last posted price for the tape was \$125 (US). VHI expects the federal government to propose rules that will subsequently create a new provider (hospital, physician, and others) identifier called the National Provider Identifier (NPI). VHI will phase in use of the NPI replacing the UPIN which

will be discontinued. Actual dates are contingent upon HCFA's implementation schedule.

CLASSIFICATION SYSTEMS

To facilitate meaningful analysis of this data, Virginia Health Information provides two types of classification systems. The first of these systems, Diagnosis Related Groups (DRGs), was developed under contract for the federal government for use in classifying Medicare patients by resource use for reimbursement purposes. They are very useful for the analysis of care provided to elderly patients. A DRG is assigned to each discharge.

The All Patient Refined DRG (APR-DRG) classification system developed by 3M Company differs from the DRG system in two key ways. First, the APR-DRGs were designed to classify patients of all age groups. There are many more categories for children and infants in the APR-DRGs. Second, 3M provides indicators of the patient's severity of illness and risk of mortality. These indicators further classify patients using reported comorbid conditions, complications, age, and other available data.

Providing both classification systems allows the user more flexibility in the analysis of data. A day outlier threshold is also present in the DRG support file. This code enables you to identify cases with a very high length of stay. By providing this information, the user can choose to include or exclude outliers from analysis. Major Diagnostic Categories (MDC) are also assigned and available. MDCs categorize patients into larger groups than either DRGs or APR-DRGs.

SUPPORT FILES

Five support files are included with each order to facilitate the use of Virginia's

patient level data. A record layout for each support file may be found in Appendix A.

DRG Files

Provided for both the HCFA DRGs and 3M's All Patient Refined DRGs. These files include the DRGs with an English description and other relevant information.

Geographic File

Connects zip codes to their corresponding health planning regions, and districts and city/county codes and is essential in geographic analyses. This file is very useful in studying patient origin or geographic differences in patterns of care.

Hospital File

Provides basic hospital data including name, address, identifier, teaching status, IRS profit/nonprofit designation, as well as the number of licensed and staffed beds, discharges submitted by quarter, and discharges on the tape after editing.

Payer File

Lists the VHI payer code with its associated English description for the field.

DATA QUALITY

PROCEDURES

VHI edits all data at the record level for integrity. Certain records are automatically excluded from tapes. These are records which contain a "fatal" error. A "fatal" error is any record with an error in:

- admission date
- discharge date
- patient status at discharge
- date of birth
- principal diagnosis, or
- principal procedure.

Duplicate records are also excluded. To assist in projecting actual volume of discharges by quarter, both the number of records submitted and the number of records written to file are made available on tape and can be found in the hospital file. For other fields in error, VHI has collapsed invalid entries into "unknown" or designated error values. We believe this allows for maximum use of the data while affording exclusions of records with serious errors.

Hospitals occasionally experience problems with data submission for particular quarters. These problems include incomplete submission, invalid entries in certain fields, as well as total corruption of data. VHI analyzes these situations and makes a decision to exclude or include the data while describing the problem in the User's Manual. Once an order is received, the file(s) is shipped with descriptions by discharge quarter of the problems encountered by hospital. If knowledge of this is necessary in advance, please contact VHI.

The following tables list hospitals which had problems with complete or accurate data submission for the discharge quarter indicated. While some hospitals resubmitted data, those listed below were unable to resolve the problems noted.

1998 Table of Inaccurate or Incomplete Data Submissions					
Hospital Name	MPN	1Q98	2Q98	3Q98	4Q98
Charter Springwood	494020			Closed	Closed
Portsmouth General Hospital	490074				Closed
Norfolk Community Hospital	490030			Closed	Closed
ValueMark West End	494026			No Data	No Data

Dickenson County Hospital changed MPN from 490131 to 490132 effective with discharges January 1998. CentraHealth changed MPN from 490095 to 490021 effective with discharges April 1998. Norfolk Community Hospital (490030) and Charter Springwood (494020) have closed and will have no discharges on or after 3q98. Portsmouth General Hospital (490074) has closed and will have no discharges on or after 4q98.

1997 Table of Inaccurate or Incomplete Data Submissions*					
Hospital Name	MPN	1Q97	2Q97	3Q97	4Q97
Dominion Hospital	494023	No data			
National Hospital Medical Center	490014	No data			
Newport News	490035	No data	No data	No data	No data

Beginning with discharges on and after October 1, 1997, Carilion Roanoke Community (490100) and Carilion Roanoke Memorial (490024) hospitals' discharges will be reported under Carilion Medical Center (490024). The following hospitals were closed or merged with other facilities in 1996 and will no longer appear in Virginia Health Information's Inpatient Level Database: Gill Memorial EENT (490083), Johnston Willis Hospital (490028), and Lewis Gale Psychiatric (494015).

1996 Table of Inaccurate or Incomplete Data Submissions*					
Hospital Name	MPN	1Q96	2Q96	3Q96	4Q96
Cumberland Hosp	493300	No data	No data		
Gill Memorial EENT	490083			No data	
Johnston Willis	490028	Low Discharges	No data		
HealthSouth Medical Center	490015				Low Discharges
Lewis Gale Psych	494015	Low Discharges	No data		
Newport News	490035	No data	No data	No data	No data
Norfolk Psychiatric	494012		No data		
Vencor-Arlington	490073	No data	No data		

Gill Memorial EENT (490083) was closed June 30, 1996, and will have no discharges after 2q96. Johnston Willis Hospital (490028) was merged with Chippenham Hospital (490112) and will have no discharges after 1q96. Lewis Gale Psychiatric (494015) was merged with Lewis Gale Hospital (490048) and will have no discharges after 1q96. Norfolk Psychiatric Institute (494012) was closed on April 1, 1996, and TPI-Norfolk (494011) was renamed Norfolk Psychiatric Institute.

1995 Table of Inaccurate or Incomplete Data Submissions*					
Hospital Name	MPN	1Q95	2Q95	3Q95	4q95
Alleghany Regional	490126	System failure, no data, available on diskette at no cost to 1Q95 licenses			
Bristol Regional	440012				No data
Centra Health	490095	Low d/chgs in March 1995			
Cumberland	493300			No data	No data
Giles Memorial	490085	Low d/chgs in March 1995			
Loudoun Hospital	490043	Low d/chgs in 1/95 and 2/95			
Newport News	490035				No data
Obici Memorial	490044				No d/chgs in 11/95
Page Memorial	490047		No data		
Southampton	490012	No detailed charges, total charges only			
TPI-VA Beach	494013		No data	No data	No data
Vencor-Arlington	490073		Low d/chgs 5/95 and 6/95	No data	No data
Wythe County	490111	Low d/chgs in March 1995			

*Check PROVIDER.SDF file for additional information on number of records submitted versus loaded into files. TPI-Va Beach closed in January 1995 and will not have discharges after 1Q95. Bristol Regional Medical Center (MPN 440012) began submitting data in 3Q95. This facility is located in Bristol, Tennessee. Although they treat a substantial number of Virginia residents, you may wish to remove those discharges from state calculations. 3Q95 is also the first quarter VHI received data from Colonial Hospital (MPN 494027).

1994 Table of Inaccurate or Incomplete Data Submissions*					
Hospital Name	MPN	1Q94	2Q94	3Q94	4Q94
Arlington Hospital	490050	No Data	High % of same day d/chgs (LOS=0)	High % of same day d/chgs (LOS=0)	
Culpeper Memorial	490019			Low # d/chgs in Sept	Low # d/chgs in Dec
Franklin Memorial	490089			Low # d/chgs in Sept	Low # d/chgs in Dec
Health South Medical Center	490015			Low # d/chgs in Sept	
John Randolph	490020	No Data	No Data		
Loudoun Hospital Center	490043			Low # d/chgs in Sept	
Louise Obici	490044		No Data		
Norfolk Community	490030	No Data			
Northampton-Accomack	490037	Low # of D/Chgs in Jan & Feb			
Norton Community	490001		No Data		

Psychiatric Institute of Richmond	494026			No Data	
Rehabilitation Hospital of VA	493028				No Data
Retreat	490071		Low # of D/Chgs		
Roanoke Memorial Hospital	490024			Low # d/chgs in Sept	Low # d/chgs in Dec
Snowden	494028	No Data			
Southampton Memorial	490092			No detailed chgs; Total chgs only	No detailed chgs; Total chgs only
St. Mary's Hospital-Richmond	490059			System error caused unusual # of errors in 2nd procedure code (Px2)	
TPI-Norfolk	494011				No Data
TPI-Virginia Beach	494013				No Data
University of Virginia	490009	Low # of D/Chgs			
Wythe County Community	490111		Low # of D/Chgs in June	Low # d/chgs in Sept	Low # d/chgs in Dec

1993 Table of Inaccurate or Incomplete Data Submissions*			
Hospital Name	MPN	3Q93	4Q93
Arlington	490050	No Data	No Data
John Randolph	490020	No Data	No Data
Norfolk Community	490030	No Data	No Data
Roanoke Memorial	490024	Low # of D/Chgs in Sept	
Rockingham Memorial	490004		No Data for Nov or Dec
Shenandoah County	490006	Low # of D/Chgs in Aug	
Snowden	494028		Low # of D/Chgs
Wise Appalachian	490010	No Data	

ORDERING

INFORMATION

To order the Public Use File-PUF1 or the Research Use File-RES1, complete the appropriate license agreement and order

form found in Appendices B and C. Enclose payment in full, and mail to Virginia Health Information. Note: Sales tax should be added to orders for individual or multi-site licenses only. Taxes apply only to in-state sales.

APPENDIX A—RECORD LAYOUTS

DATA RECORD LAYOUT

Public Use File-PUF1 Patient Level Data October 1, 1998 to Present							
Field Name	Label	Length	Format	From	To	Description	
1	MPN	Hospital ID Number	6	A	1	6	Medicare Provider Number
2	Ageday	Age in Days	3	N	7	9	Age in Days up to 365 Days
3	Age	Age in Years	3	N	10	12	Age in Years for Individuals >= 1 Year Old
4	Sex	Sex	1	A	13	13	Values: M (Male), F (Female), U (Unknown)
5	Race	Race	1	A	14	14	Values: 0 (White), 1 (Black), 2 (Other), 3 (Asian), 4 (Am. Indian), 5 (Hispanic), 6 (Blk. Hispanic), 9 (Unknown)
6	QYA	Quarter/Year of Admission	3	A	15	17	Example: 393 = Third Quarter 1993
7	QYD	Quarter/Year of Discharge	3	A	18	20	Example: 194 = First Quarter 1994
8	Asrce	Admit Source	1	A	21	21	UB-92 form locator 20; Values: 1 (Physician Referral), 2 (Clinic Referral), 3 (HMO Referral), 4 (Transfer from Hospital), 5 (Transfer from SNF), 6 (Transfer from other Health Care Facility), 7 (Emergency Room), 8 (Court/Law Enforcement), 9 (Unknown)
9	Atype	Admit Type	1	A	22	22	UB-92 form locator 19; Values: 1 (Emergency), 2 (Urgent), 3 (Elective), 4 (Newborn), 9 (Unknown)
10	Zip	Patient Zip Code	9	A	23	31	U.S. Postal Service Zip Codes
11	LOS	Length of Stay	3	N	32	34	Note: If Adate = Ddate, LOS = 0; Subtract Units from Rcode 180-189
12	Pstat	Patient Status	2	A	35	36	UB-92 form locator 22; Values: 1 (Home or Self Care), 2 (Transferred to another Hospital), 3 (Transferred to a SNF), 4 (Transferred to an ICF), 5 (Transferred to another type of institution), 6 (Home Under Care of Home Health Service Organization), 7 (Left), 8 (Home under IV Provider), 20 (Expired)
13	DX1	Principal Diagnosis Code	5	A	37	41	ICD-9-CM code
14	DX2	1st Secondary Diagnosis Code	5	A	42	46	ICD-9-CM code
15	DX3	2nd Secondary Diagnosis Code	5	A	47	51	ICD-9-CM code
16	DX4	3rd Secondary Diagnosis Code	5	A	52	56	ICD-9-CM code
17	DX5	4th Secondary Diagnosis Code	5	A	57	61	ICD-9-CM code
18	DX6	5th Secondary Diagnosis Code	5	A	62	66	ICD-9-CM code
19	DX7	6th Secondary Diagnosis Code	5	A	67	71	ICD-9-CM code
20	DX8	7th Secondary Diagnosis Code	5	A	72	76	ICD-9-CM code
21	DX9	8th Secondary Diagnosis Code	5	A	77	81	ICD-9-CM code
22	PX1	Principal Procedure Code	4	A	82	85	ICD-9-CM code
23	PX2	1st Secondary Procedure Code	4	A	86	89	ICD-9-CM code
24	PX3	2nd Secondary Procedure Code	4	A	90	93	ICD-9-CM code
25	PX4	3rd Secondary Procedure Code	4	A	94	97	ICD-9-CM code

26	PX5	4th Secondary Procedure Code	4	A	98	101	ICD-9-CM code
27	PX6	5th Secondary Procedure Code	4	A	102	105	ICD-9-CM code
28	PRLOS	Pre-Op LOS	3	N	106	108	PX1date - Adate
29	PSLOS	Post-Op LOS	3	N	109	111	Ddate - PX1date
30	DRG	DRG Code	3	A	112	114	DRG as per HCFA
31	MDC	MDC Code	2	A	115	116	MDC as per HCFA
32	APRDRG	APRDRG Code	5	A	117	121	3M All Patient Refined DRG Code
33	Tchg	Total Charges	7	N	122	128	NOTE: For all charges, if value is > 7 digits, default to 9999999
34	RBchg	Room and Board Charges	7	N	129	135	100-171
35	RCchg	Routine Care Charges	7	N	136	142	176-199,220-232,235-239,500-529,550-569,650-659, 910-919, 990-999
36	SCchg	Special Care (Intensive Care)	7	N	143	149	172-175, 200-219, 233-234
37	Aneschg	Anesthesiology Charges	7	N	150	156	370-379
38	Phrchg	Pharmacy Charges	7	N	157	163	250-269
39	Radchg	Radiology Charges	7	N	164	170	320-339, 400-409
40	MRICT	MRI/CT Charges	7	N	171	177	350-359, 610-619
41	NMchg	Nuclear Medicine Charges	7	N	178	184	340-349
42	CLchg	Clinical Lab Charges	7	N	185	191	300-319
43	LDchg	Labor/Delivery Room Charges	7	N	192	198	720-729
44	ORchg	Operating Room Charges	7	N	199	205	360-369, 490-499, 710-719
45	Oncchg	Oncology Charges	7	N	206	212	280-289
46	MSSchg	Med/Surg Supplies Charges	7	N	213	219	270-279
47	Othchg	Other Charges	7	N	220	226	All Other Revenue Codes
48	Payer	Payer Type I	2	A	227	228	VHI Payer Codes
49	Cnty	County Code	3	A	229	231	U.S. Postal Service County Code
50	HPR	Health Planning Region	1	A	232	232	Va. Health Planning Region Codes
51	HPD	Health Planning District	2	A	233	234	Va. Health Planning District Codes
52	Comp	Complication Code	1	A	235	235	1 = Complication Present
53	CCA	Cancer CoMorbidity	1	A	236	236	1 = Comorbidity Present
54	CCV	Chronic Cardiovascular Disease	1	A	237	237	1 = Comorbidity Present
55	CLV	Chronic Liver Disease	1	A	238	238	1 = Comorbidity Present
56	CRN	Chronic Renal Disease	1	A	239	239	1 = Comorbidity Present
57	CDI	Chronic Diabetes	1	A	240	240	1 = Comorbidity Present
58	COP	Chronic Pulmonary Disease	1	A	241	241	1 = Comorbidity Present
59	CCE	Cerebrovascular Degeneration	1	A	242	242	1 = Comorbidity Present
60	Filler	Filler1	9	A	243	251	
61	State	Patient State	2	A	252	253	Not available for discharges prior to July 1, 1994
62	Ecode	External Injury Code	5	A	254	258	ICD-9-CM Diagnosis Code not available for discharges prior to July 1, 1994
63	InfBWT	Infant Birth Weight	4	N	259	262	Weight in Grams not available for discharges prior to July 1, 1994

64	VHIKey	Key Number	10	A	263	272	Unique Record Identifier not available for discharges prior to July 1, 1994
65	APHY	Attending UPIN	8	A	273	280	Attending Physician UPIN not available for discharges prior to April 1, 1996
66	OPHY	Operating UPIN	8	A	281	288	Operating Physician UPIN not available for discharges prior to April 1, 1996
67	Filler	Filler 2	8	A	289	296	
68	Filler	Filler 3	8	A	297	304	
69	AUWarn	Attending UPIN Warning	1	A	305	305	Values: 0=UPIN is valid format and appears in HCFA UPIN table, 1= UPIN is valid format only
70	OUPWarn	Operating UPIN Warning	1	A	306	306	Values: 0=UPIN is valid format and appears in HCFA UPIN table, 1=UPIN is valid format only
71	RAT	Readmission and Transfer	1	A	307	307	1=Record is eligible for inclusion in the Readmission and Transfer File
72	Filler	Filler 4	10	A	308	317	
73	CRLF		2	N	318	319	End of Record

SUPPORT FILE RECORD LAYOUTS

Record Layouts and Data Descriptions for the following files: APRDRG, PAYER, DRG, PROVIDER, and GEOG are found below.

APRDRG.SDF Record Layout				
Description	Start	Stop	Length	Comments
APRDRG Value	1	3	3	3M value of APRDRG
Filler	4	4	1	
APRDRG Description	5	70	66	3M description of APRDRG
Filler	71	71	1	
APR MDC value	72	73	2	99 - Unassigned

PAYER.SDF Record Layout				
Description	Start	Stop	Length	Comments
Payor Value	1	2	2	VHI payor code
Filler	3	3	1	
Description	4	25	22	Text of payor/payor type

DRG.SDF Record Layout				
Description	Start	Stop	Length	Comments
DRG Value	1	3	3	HCFA DRG value
Filler	4	4	1	
DRG Description	5	42	38	English description
Filler	43	43	1	
MDC value	44	45	2	99 - Unassigned
Filler	46	46	1	
DRG Version	47	48	2	Version # of software
Filler	49	49	1	
DRG Weight	50	56	7	Implied decimal after 3rd position
Filler	57	57	1	
Outlier Threshold	58	60	3	Threshold in days, not present for discharges after 3q97

GEOG.SDF Record Layout *				
Description	Start	Stop	Length	Comments
Zip Code	1	5	5	U. S. Postal Service zip code
Filler	6	6	1	
District Code	7	8	2	VA Department of Health # for health planning district
Filler	9	9	1	
Region Code	10	10	1	# for health planning region
Filler	11	11	1	
County Code	12	14	3	County Code
Filler	15	15	1	
HPD Description	16	35	20	Text of District
Filler	36	36	1	
Region Description	37	58	22	Text of Region
Filler	59	59	1	
County Description	60	78	19	Text of County

PROVIDER.SDF Record Layout				
Description	Start	Stop	Length	Comments
Hospital Number	1	6	6	Medicare provider number
Filler	7	7	1	
Hospital Name	8	42	35	
Hospital Address	43	87	45	
Hospital City	88	102	15	
Hospital State	103	104	2	Abbreviation of state
Filler	105	105	1	
Hospital Zip	106	110	5	Hospital zip code
Filler	111	111	1	
Hospital Type	112	120	9	
Filler	121	121	1	
Licensed Beds	122	125	4	Number of licensed beds
Filler	126	126	1	
Staffed Beds	127	130	4	Number of staffed beds
Filler	131	131	1	
Tax Status	132	146	15	Description of tax status
Filler	147	147	1	
Teaching Status	148	177	30	Description of teaching status
Filler	178	178	1	
Q393 - # Submitted	179	185	7	# Records submitted to VHI
Q393 - # In File	186	192	7	# Records in Distribution file
Q493 - # Submitted	193	199	7	# Records submitted to VHI
Q493 - # In File	200	206	7	# Records in Distribution file
Q194 - # Submitted	207	213	7	# Records submitted to VHI
Q194 - # In File	214	220	7	# Records in Distribution file
Q294 - # Submitted	221	227	7	# Records submitted to VHI
Q294 - # In File	228	234	7	# Records in Distribution file
Q394 - # Submitted	235	241	7	# Records submitted to VHI
Q394 - # In File	242	248	7	# Records in Distribution file
Q494 - # Submitted	249	255	7	# Records submitted to VHI
Q494 - # In File	256	262	7	# Records in Distribution file
Q195 - # Submitted	263	269	7	# Records submitted to VHI

Q195 - # In File	270	276	7	# Records in Distribution file
Q295 - # Submitted	277	283	7	# Records submitted to VHI
Q295 - # In File	284	290	7	# Records in Distribution file
Q395 - # Submitted	291	297	7	# Records submitted to VHI
Q395 - # In File	298	304	7	# Records in Distribution file
Q495 - # Submitted	305	311	7	# Records submitted to VHI
Q495 - # In File	312	318	7	# Records in Distribution file
Q196 - # Submitted	319	325	7	# Records submitted to VHI
Q196 - # In File	326	332	7	# Records in Distribution file
Q296 - # Submitted	333	339	7	# Records submitted to VHI
Q296 - # In File	340	346	7	# Records in Distribution file
Q396 - # Submitted	347	353	7	# Records submitted to VHI
Q396 - # In File	354	360	7	# Records in Distribution file
Q496 - # Submitted	361	367	7	# Records submitted to VHI
Q496 - # In File	368	374	7	# Records in Distribution file
Q197 - # Submitted	375	381	7	# Records submitted to VHI
Q197 - # In File	382	388	7	# Records in Distribution file
Q297 - # Submitted	389	395	7	# Records submitted to VHI
Q297 - # In File	396	402	7	# Records in Distribution file
Q397 - # Submitted	403	409	7	# Records submitted to VHI
Q397 - # In File	410	416	7	# Records in Distribution file
Q497 - # Submitted	417	423	7	# Records submitted to VHI
Q497 - # In File	424	430	7	# Records in Distribution file
Q198 - # Submitted	431	437	7	# Records submitted to VHI
Q198 - # In File	438	444	7	# Records in Distribution file
Q298 - # Submitted	445	451	7	# Records submitted to VHI
Q298 - # In File	452	458	7	# Records in Distribution file
Q398 - # Submitted	459	465	7	# Records submitted to VHI
Q398 - # In File	466	472	7	# Records in Distribution file
Q498 - # Submitted	473	479	7	# Records submitted to VHI
Q498 - # In File	480	486	7	# Records in Distribution file

**VHI appreciates the assistance of the Central Virginia Health Planning Agency for mapping zip codes to health planning regions and districts.*

APPENDIX B—DATA ELEMENT DICTIONARY

The data dictionary that follows describes each data element contained in the patient level data public use files. These descriptions should be used with the record layout for complete information pertaining to every data element.

MPN--MEDICARE PROVIDER NUMBER

Hospital ID number. Pseudo numbers have been assigned where a hospital is not a Medicare provider. Records are excluded if there is a known error in this field. A file containing the MPN, hospital's name, address, number of licensed and staffed beds, teaching status, hospital type, and tax status is provided and labeled PROVIDER.SDF.

AGEDAY--AGE IN DAYS The age of the patient is calculated in days for children up to one year old. The calculation is based on date of birth and date of admission. Age in days is equal to zero if the admission date and date of birth are the same. This field is blank for patients one year of age or older. Records are excluded if there is a known error in any of the fields used for this calculation.

AGE--AGE IN YEARS Age in years is calculated for individuals one year of age or older. The calculation is based on date of birth and date of admission. Records are excluded if there is a known error in any of the fields used for this calculation; however, some questionable ages may still result.

SEX--PATIENT SEX Values are: M = Male, F = Female, U = Unknown. Records with a missing or known invalid entry are assigned a default value of U.

RACE--PATIENT RACE Values are: 0 = White, 1 = Black, 2 = Other, 3 = Asian, 4 = American Indian, 5 = Hispanic, 6 = Black

Hispanic, 9 = Unknown. Records with a missing or known invalid entry are assigned a default value of 9.

QYA--QUARTER/YEAR OF ADMISSION

To protect the identity of individuals, admission date is converted to the calendar quarter and year the patient was admitted. Records are excluded if there is a known error in the admission date.

QYD--QUARTER/YEAR OF DISCHARGE

To protect the identity of individuals, discharge date is converted to the calendar quarter and year the patient was discharged. Records are excluded if there is a known error in the discharge date.

ASRCE--ADMISSION SOURCE Values for patients other than newborns are: 1 = Physician Referral, 2 = Clinic Referral, 3 = HMO Referral, 4 = Transfer from a Hospital, 5 = Transfer from a Skilled Nursing Facility, 6 = Transfer from Another Health Care Facility, 7 = Emergency Room, 8 = Court/Law Enforcement, 9 = Unknown. However, if the admission type is 4, indicating a newborn, the values are: 1 = Normal Delivery, 2 = Premature Delivery, 3 = Sick Baby, 4 = Extramural Birth, and 9 = Unknown. Any record with a missing or known invalid entry is assigned a default value of 9.

ATYPE--ADMISSION TYPE Priority of the admission. Values are: 1 = Emergency, 2 = Urgent, 3 = Elective, 4 = Newborn, 9 = Unknown. Records with a missing or known invalid entry are assigned a default value of 9.

ZIP--UNITED STATES POSTAL SERVICE

ZIP CODE A 5 digit zip code is provided. A value of XXXXX indicates an unknown zip code and a value of YYYYY indicates a foreign zip code. Records with a missing or known invalid value are assigned a default value of blanks.

LOS--LENGTH OF STAY Length of stay is calculated by subtracting the admission date from the discharge date. If the admission date is the same as the discharge date, the length of stay is defined to be 0. You may wish to exclude cases with a length of stay equal to 0 from average length of stay calculations or other analyses. Furthermore, if a patient took a leave of absence, indicated by a revenue center code of 180-189, those days are subtracted from the length of stay. Records with a known error in either the admission date or discharge date are excluded from the data base.

PSTAT --PATIENT DISCHARGE STATUS

Patient status at time of discharge. Values are: 1 = Discharged to home or self care, 2 = Discharged/ Transferred to another short term general hospital, 3 = Discharged/Transferred to a skilled nursing facility, 4 = Discharged/Transferred to an intermediate care facility, 5 = Discharged/Transferred to another type of institution for inpatient care or referred for outpatient services to another institution, 6 = Discharged/Transferred to home under the care of an organized home health service organization, 7 = Left against medical advice or discontinued care, 8 = Discharged/Transferred to home under the care of a Home IV provider, and 20 = Expired. Records with a missing or known invalid entry are excluded from the data base.

DX1--PRINCIPAL DIAGNOSIS Based on the ICD-9-CM coding system. Records with a missing or known invalid entry are excluded from the data base.

DX2-DX9--SECONDARY DIAGNOSIS FIELDS Based on the ICD-9-CM coding system. Records with a known invalid entry are assigned a default value of "00000".

PX1--PRINCIPAL PROCEDURE Based on the ICD-9-CM coding system. Records with a known invalid value are excluded from the data base.

PX2-PX6--SECONDARY PROCEDURE FIELDS Based on the ICD-9-CM coding system. Records with a known invalid value are assigned a default value of "0000".

PRLOS--PREOPERATIVE LENGTH OF STAY Calculated by subtracting the admission date from the date of the principal procedure. Records with a known invalid value in the principal procedure date field are assigned a default value of blanks. Note: Some software will convert blanks to zeros. If this occurs, various calculations and statistics you perform could be distorted. You should determine your software default and exercise caution.

PSLOS--POSTOPERATIVE LENGTH OF STAY Calculated by subtracting the principal procedure date from the date of discharge. Records with a known invalid entry in the principal procedure date field are assigned a default value of blanks. PSLOS will be blank filled even though it is defined as a numeric field. Note: Some software will convert blanks to zeros. If this occurs, various calculations and statistics you perform could be distorted. You should determine your software default and exercise caution.

DRG--DIAGNOSIS RELATED GROUP Based on the HCFA (Health Care Financing Administration) DRG grouping software.

This software utilizes the principal diagnosis, secondary diagnoses, surgical procedures, age, sex and discharge status. A file containing the English descriptions is provided and labeled DRG.SDF.

MDC--MAJOR DIAGNOSTIC CATEGORY The MDC is assigned based on the HCFA definition. A separate file containing the English descriptions is provided.

APRDRG--ALL PATIENT REFINED-DRG Based on the 3M definition. The version used before 3Q94 is 10.0, the version used with 3Q94 through 3Q97 is version 12.0, and beginning with 4Q97, VHI uses version 15.0. To assist in updating earlier versions of 3M's APR-DRGs, Virginia Health

Information will provide a diskette containing the VHIKey and version 15.0 for discharges in 1996 and 1997 that will allow the user to map version 15.0 of APR-DRGs to earlier discharges. Licensees wishing to receive version 15.0 for discharges earlier than 1996 may contact VHI. Values contain 5 characters. The first three characters are the actual APR-DRG. The fourth character is an assigned severity index, and the fifth is the risk of mortality subclass. For the severity index and risk of mortality, a label of "1" indicates the least severe or lower risk cases, while a label of "4" indicates the most severe or higher risk cases, respectively. For APR-DRGs 955 and 956, a 0 is assigned for both the severity of illness and risk of mortality subclasses. A definitions manual for the 3M APR-DRGs is available. A file containing the English descriptions is provided and labeled APRDRG.SDF.

TCHG--TOTAL CHARGE Determined by the revenue center code 0001. If this code is present, the corresponding revenue center charge is the total charge. There are 23 possible revenue center code and charge fields. Values are in whole dollar amounts. For ALL charges, if the amount is greater than 7 digits, the default value is 9999999. Records not reporting a revenue center code value of 001 or containing a missing or known invalid value in the required RCode1 field will have total charges reported as blanks. Note: Some software will convert blanks to zeros. If this occurs, various calculations and statistics you perform could be distorted. You should determine your software default and exercise caution. You may wish to exclude cases from charge analyses if total charges are equal to 0.

RBCHG--ROOM AND BOARD CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 100 - 171, inclusive.

RCCHG--ROUTINE CARE CHARGES

Calculated by summing revenue center

charge fields that have associated revenue center code fields containing values: 176 - 199, 220 - 232, 235 - 239, 500 - 529, 550 - 569, 650 - 659, 910 - 919, or 970 - 999.

SCCHG--SPECIAL CARE (INTENSIVE CARE)

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 172 - 175, 200 - 219, and 233 - 234.

ANESCHG--ANESTHESIOLOGY

CHARGES Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 370 - 379, inclusive.

PHRCHG--PHARMACY CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing any of the values: 250 - 269, inclusive.

RADCHG--RADIOLOGY CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 320 - 339 or 400 - 409.

MRICT--MRI/CT CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 350 - 359 or 610 - 619.

NMCHG--NUCLEAR MEDICINE

CHARGES Calculated by summing the revenue center charge fields that have corresponding revenue center code fields containing values: 340 - 349, inclusive.

CLCHG--CLINICAL LAB CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values: 300 - 319, inclusive.

LDCHG--LABOR/DELIVERY ROOM

CHARGES Calculated by summing revenue center charge fields that have associated revenue center code fields containing values 720 - 729.

ORCHG--OPERATING ROOM CHARGES

Calculated by summing revenue center charge fields that have corresponding

revenue center code fields containing values: 360 - 369, 490 - 499, 710 - 719.

ONCHG--ONCOLOGY CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values 280 - 289, inclusive.

MSSCHG--MEDICAL/SURGICAL SUPPLIES CHARGES

Calculated by summing revenue center charge fields that have associated revenue center code fields containing values 270 - 279, inclusive.

OTHCHG--OTHER CHARGES Calculated by summing remaining revenue center charge fields that have corresponding revenue center code fields containing any value not listed above.

PAYER--PAYER TYPE Payer type 1 contains a VHI assigned numeric value indicating the primary health plan responsible for reimbursing the hospital for the services provided. Values were calculated by converting text names of payers provided by hospitals to codes. A file containing the English description is provided and labeled PAYER.SDF.

CNTY--COUNTY CODE A United States Postal Service county code. A file containing Virginia's county codes, zip codes, health planning regions, and health planning districts is provided and labeled GEOG.SDF.

HPR--HEALTH PLANNING REGION HPR is based on Virginia's Department of Health planning regions. The geographical descriptions are provided in a separate file labeled GEOG.SDF. This file contains the zip code, health planning region, health planning district, and the city or county code of the patient's place of residence. Zip codes were mapped to the HPR by the Central Virginia Health Planning Agency (CVHPA). A value of 9 indicates that the patient resides outside Virginia or the zip code was invalid or unknown.

HPD--HEALTH PLANNING DISTRICT HPD is based on Virginia's Department of

Health planning districts. A file containing the geographical descriptions is provided and labeled GEOG.SDF. Zip codes were mapped to the HPD by the CVHPA. A value of 99 indicates that the patient resides outside Virginia or the zip code was invalid or unknown.

COMP--COMPLICATION CODE If any diagnosis field (primary or secondary) contains a value of 995.0, 995.2, 995.4, or is within the range 996.0 - 999.9, a value of 1 is assigned indicating the presence of a complication. Otherwise, the default value is blank.

CCA--CANCER COMORBID If any diagnosis field (primary or secondary) contains a value falling within these ranges: 141.0 - 160.9, 162.0 - 172.9, or 174.0 - 208.91, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

CCV--CHRONIC CARDIOVASCULAR DISEASE If any diagnosis field (primary or secondary) contains a value falling within these ranges: 412.0 - 414.9, 426.0 - 429.1, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

CLV--CHRONIC LIVER DISEASE If any diagnosis field (primary or secondary) contains a value falling within the range 571.0 - 572.8, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

CRN--CHRONIC RENAL DISEASE If any diagnosis field contains a value falling within the ranges: 582.0 - 583.9, 585.0 - 587.0, or is equal to 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, or 404.93, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

CDI--CHRONIC DIABETES If any diagnosis field contains the value 250.01 or falls within the range 250.1 - 250.91, a value of 1 is assigned indicating the presence of

the comorbidity. Otherwise, the default value is blank.

COP--CHRONIC PULMONARY DISEASE

If any diagnosis field contains the value 496.0 or falls within the range 491.0 - 493.91, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

CCE--CEREBROVASCULAR

DEGENERATION If any diagnosis field contains a value falling within the ranges: 290.0 - 290.9, 294.0 - 299.9, a value of 1 is assigned indicating the presence of the comorbidity. Otherwise, the default value is blank.

STATE--PATIENT STATE United States Postal Service assigned state code. Zip codes received are edited for validity. Valid zip codes are then assigned the appropriate state and county code. Records with a missing or known invalid zip code are assigned a default state value of XX. State codes are provided for discharges on and after July 1, 1994. This code is available by special order for discharges prior to this date.

ECODE--EXTERNAL CAUSE OF INJURY

CODE Base on ICD-9-CM coding system. Provided for discharges on and after July 1, 1994.

INFBWT--INFANT BIRTH WEIGHT

Recorded for newborns. Improbable weights have been changed to blanks. The range included is 160-7999 grams. The user may wish to further restrict this range. Provided for discharges on and after July 1, 1994.

VHIKEY--VHI UNIQUE RECORD

IDENTIFIER This field allows linking of records to other records if developed with adjunct information. Provided for discharges on and after July 1, 1994.

APHY--ATTENDING PHYSICIAN UPIN

Federally assigned unique physician identification number. The attending physician is defined in the Virginia UB-92 manual as the physician who has primary

responsibility for the patient's medical care and treatment. Individual hospitals and their medical staffs determine how to make this determination. Provided for hospitals meeting a 90% agreement rate for discharges on and after April 1, 1996, and for all hospitals on and after July 1, 1996. A list of included hospitals can be found in Appendix C. Two default values are currently accepted: OTH000 for new physicians or those without a UPIN and RES000 for residents or interns.

OPHY--OPERATING PHYSICIAN UPIN

Federally assigned unique physician identification number. Provided for hospitals meeting a 90% agreement rate for discharges on and after April 1, 1996, and for all hospitals on and after July 1, 1996. A list of included hospitals can be found in Appendix C. Two default values are currently accepted: OTH000 for new physicians or those without a UPIN and RES000 for residents or interns.

AUWARN--ATTENDING UPIN WARNING

The addition of this field allows the data user to determine whether the UPIN will be included in an analysis. A value equal to "0" indicates that the submitted Attending Physician UPIN for a hospital discharge was on the HCFA National UPIN table. A value of "1" indicates that the value was not on the HCFA National table but was in the proper UPIN format (Alpha character followed by five numbers). A value of "1" may indicate a physician recently assigned a UPIN, a physician who seldom submits claims for Medicare patients, or a possible error. A blank (" ") reflects that no value was submitted, or it was in an incorrect format. Available for discharges beginning with 4q98.

OUIWARN--OPERATING UPIN WARNING

The addition of this field allows the data user to determine whether the UPIN will be included in an analysis. A value equal to "0" indicates that the submitted Operating Physician UPIN for a hospital discharge was

on the HCFA National UPIN table. A value of "1" indicates that the value was not on the HCFA National table but was in the proper UPIN format (Alpha character followed by five numbers). A value of "1" may indicate a physician recently assigned a UPIN, a physician who seldom submits claims for Medicare patients, or a possible error. A blank (" ") reflects that no value was submitted, or it was in an incorrect format. Available for discharges beginning with 4q98.

RAT--READMISSION AND TRANSFER

Indicates whether the discharge is eligible to be used for Readmission and transfer calculations when valid SSN, Bdate, Adate, Ddate, MPN, and sex are provided. When

available, Readmission and Transfer (RAT) files can be used to accurately calculate readmission or transfer rates by determining which records in the patient level data file were considered a possible readmission/transfer record (e.g. met the listed criteria). An label of "1" indicates that the record met those criteria. When publicly available, readmission and transfer information can be linked to the public use data files and correctly identify the denominator by including only those cases with a "1" in the RAT field. Populated beginning with discharges on and before January 1, 1999.

APPENDIX C—LICENSING AGREEMENTS

PUBLIC USE LICENSING AGREEMENT

**Virginia Health Information
Application for and Agreement to License Patient Level Data
(Public Use File - PUF1)**

- I. Name: _____
 Company: _____ (the "Contractor")
 Address: _____
 Telephone: _____ Fax: _____
 Check as Applicable: Business nonprofit (per IRS): _____ Business: _____ University:
 _____ Government: _____ Other: _____
- II. State the reason the data is requested. _____

- III. Will reports be created for sale to third parties using this data? _____ If yes, please note target volume of expected reports using this data or extracts from this data.

- IV. Will files be created for sale to third parties? _____ If yes, please note the target volume of files to be created. _____
- V. Applicant desires the following license: (Please check only one)
 A. Individual License: _____ Allows Contractor to use data on single computer.
 B. Site License: _____ Allows Contractor to make multiple copies for use by individuals within the same organization or a single copy accessible by computer network by more than one individual within the same organization.
 C. Commercial License: _____ Allows Contractor to make multiple copies for incorporation into computer software for subsequent resale and/or distribution. Also allows Contractor to sell reports created from database.
- VI. Virginia Health Information (VHI) hereby grants the Contractor indicated in Section V a non-exclusive, non-transferable, and perpetual license to use the Data Base described in Appendix A under the terms and subject to the restrictions of this Agreement, and the Contractor hereby accepts, subject to the terms and conditions set forth in this Agreement, the nonexclusive and nontransferable right to use the Data Base pursuant to the terms of this Agreement.

In accepting the usage granted by VHI, the Contractor agrees that it shall:

- A. Except as permitted under Section VI, Part F below, not license, rent, lease,

- distribute, or permanently transfer the Contractor's rights to use the Data Base.
- B. Use the Data Base only for the expressed purpose stated by the Contractor in this application.
 - C. Make no attempt, by commission or omission, to identify, disclose, discuss, release, or provide access to information on specific individual patients.
 - D. Contractor agrees to include the following statement in any reports, publications, or secondary files created using the Data Base whether for internal use or for sale, presentation, or distribution to third parties:
“Virginia Health Information (VHI) has provided non-confidential patient level information used in this file, report, publication, or database which it has compiled in accordance with Virginia law but which it has no authority to independently verify. By using this file, report, publication, or database, the user agrees to assume all risks that may be associated with or arise from the use of inaccurate data. VHI cannot and does not represent that the use of VHI's data was appropriate for this file, report, publication, or database or endorse or support any conclusions of inferences that may be drawn from the use of VHI's data.”
 - E. Not resell or externally distribute the Data Base unless Contractor obtains a commercial license from Virginia Health Information as defined in Section V., Part C above and incorporates the Data Base into a computer program that manipulates and analyzes or enables the user to manipulate and analyze the data as permitted under this License Agreement (the “Software”.)
 - F. Notwithstanding the restrictions set forth above if a multi-site license or commercial license as described in Section V., Parts B, or C is issued, Contractor shall be permitted to distribute the Data Base to entities or individuals that are directly or indirectly owned or controlled by Contractor or that are directly or indirectly owned or controlled by the same entity or individual that owns or controls Contractor.
 - G. Pay such additional licensing fees to VHI as may reasonably be demanded by VHI in the event that Contractor's use of the Data Base exceeds the scope of this agreement.

Contractor further agrees that VHI shall be entitled to terminate all of Contractor's rights to use the Data Base and Contractor shall return all copies of the Data Base to VHI, in the event Contractor violates the terms of this Agreement and fails to cure such violation within seven (7) days of the receipt of such notice. Notwithstanding the preceding sentence, if Contractor violates the terms of Section C above regarding patient identity, this license shall immediately terminate and Contractor shall immediately return all copies of the Data Base to VHI.

Upon receipt of this application and Agreement, executed by the Contractor acceptance by VHI hereof, and receipt of the license fee, VHI shall execute the Agreement and furnish the Contractor the Data Base in computer-readable form, subject to the terms of this agreement.

All fees payable by Contractor under this Agreement are net of applicable taxes. Contractor is solely responsible for any taxes or assessed fees which are, or may become, due by reason of this Agreement.

Contractor does hereby indemnify and shall hold harmless VHI, and its directors, officers, and any employees and agents from and against all liability (including punitive damages) and costs (including reasonable attorneys' fees) arising out of a claim or claims of third parties arising from the use by Contractor, in any manner, of the Data Base, including (but not limited to) the violation of any third party's privacy rights.

CONTRACTOR AGREES THAT THE DATA BASE IS BEING PROVIDED AS IS AND ALL WARRANTIES, WHETHER BY COMMON LAW, STATUTE, OR EQUITY, ARE EXCLUDED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (WHETHER OR NOT VHI KNOWS, HAS REASON TO KNOW, HAS BEEN ADVISED, OR IS OTHERWISE IN FACT AWARE OF ANY SUCH PURPOSE). CONTRACTOR ACKNOWLEDGES THAT VHI ONLY COMPILES THE INFORMATION CONTAINED IN THE DATA BASE, AND DOES NOT INDEPENDENTLY VERIFY OR WARRANT THE ACCURACY OF SUCH INFORMATION.

CONTRACTOR AGREES THAT VHI SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Contractor has read and agrees to abide by all terms and restrictions described regarding the use of Virginia Health Information (VHI) patient level data.

VIRGINIA HEALTH INFORMATION

By: _____
Name: _____
Title: _____
Date: _____

CONTRACTOR

By: _____
Name: _____
Title: _____
Date: _____

VHI License No. _____
revised 04/20/95

Appendix A**Description of the Data Base****Public Use File-PUF1**

The Public Use File-PUF1 is a data file of all hospital discharges in the Commonwealth of Virginia for the identified quarter. Claims data elements are included for patient demographics, diagnoses and procedures, charges, and revenue groupings. Co-morbid conditions have also been added to aid in determining variations in patient outcomes.

RESEARCH USE LICENSING AGREEMENT

**Virginia Health Information
Application for, and Agreement to License Patient Level Data
(Research File Patient Level Data-RES1)**

I. Name: _____
 Organization: _____ (the "Contractor")
 Address: _____
 Telephone: _____ Fax: _____
 Email: _____
 Check as Applicable: Business non-profit (per IRS) _____ Business other: _____
 University: _____ Other: _____

II. Please describe the specific research project for which the data is requested. _____

III. Please indicate why the project cannot be conducted using other Public Use Files available from Virginia Health Information (Attach separate sheet if necessary.)

IV. Please identify the principal investigator: _____

V. Applicant desires a license for: (Please check only one)
 A. Individual Copy: _____ Allows Contractor to use data on single computer.
 B. Site License: _____ Allows Contractor to make multiple copies for use by individuals within the same organization or a single copy accessible by computer network by more than one individual within the same organization.

VI. Virginia Health Information (VHI) hereby grants to the Contractor a nonexclusive, nontransferable, and perpetual license to use the Data Base described in Appendix A under the terms and subject to the restrictions of this Agreement, and the Contractor hereby accepts, subject to the terms and conditions set forth in this Agreement, the nonexclusive and nontransferable right to use the Data Base pursuant to the terms of this Agreement. Contractor shall be permitted to use the Data Base solely for the project defined in Section II and as further described in the attached research plan only.

- VII. In accepting the license granted by VHI, the Contractor agrees that it shall:
- A. Except as permitted under Section VII, part F below, not license, rent, lease, distribute, or permanently transfer the Contractor's rights to use the Data Base.
 - B. Use the Data Base only for the expressed purpose stated by the Contractor in this application.
 - C. Not use any means, including but not limited to combining, linking, processing or analyzing the information contained in the Data Base with any other information, that would enable the identity of individual patients to be identified, disclosed, discussed, or released, or that would provide access to information on specific individual patients.
 - D. Contractor agrees to include the following statement in any reports, publications, or secondary files created using the Data Base whether for internal use or for sale, presentation, or distribution to third parties:
“Virginia Health Information (VHI) has provided non-confidential patient level information used in this file, report, publication, or database which it has compiled in accordance with Virginia law but which it has no authority to independently verify. By using this file, report, publication, or database, the user agrees to assume all risks that may be associated with or arise from the use of inaccurate data. VHI cannot and does not represent that the use of VHI’s data was appropriate for this file, report, publication, or database or endorse or support any conclusions of inferences that may be drawn from the use of VHI’s data.”
 - E. Not resell the Data Base or any works derived, whether in electronic or in any other form, from the Data Base. Encrypted patient identifiers cannot be part of any database for external distribution as defined in this section.
 - F. Notwithstanding the restrictions set forth above if a multi-site license is issued, Contractor shall be permitted to distribute the Data Base to entities or individuals that are directly or indirectly owned or controlled by Contractor or that are directly or indirectly owned or controlled by the same entity or individual that owns or controls Contractor or to the Contractor’s agent to support the described purpose in Section II.
 - G. Pay such additional licensing fees to VHI as may reasonably be demanded by VHI in the event that Contractor’s use of the Data Base exceeds the scope of this agreement.
 - H. Provide a copy of any published reports or articles created using the Data Base to VHI.

Contractor further agrees that VHI shall be entitled to terminate all of Contractor's rights to use the Data Base, and Contractor shall return all copies of the Data Base to VHI, in the event Contractor violates the terms of this Agreement and fails to cure such violation within seven (7) days of the receipt of such notice. Notwithstanding the preceding sentence, if Contractor violates the terms of Section C above regarding patient identity, this license shall immediately terminate and Contractor shall immediately return all copies of the Data Base to VHI.

- I. In support of the foregoing request for VHI data, the requester must submit the following:
 1. A research plan specifying the objectives of the study, the manner in which the data will be used, the financial support for the study, and the date the research will be completed;
 2. A copy of any report by a panel of recognized experts reviewing the research plan (where such a review has been performed); and
 3. Resumes of principal investigator and research staff.

Upon receipt of this executed application and Agreement and accompanying payment, VHI shall review the application, and if it approves the application it shall execute the Agreement and furnish the Contractor the Data Base in computer-readable form, subject to the terms of this Agreement.

All fees payable by Contractor under this Agreement are net of applicable taxes. Contractor is solely responsible for any taxes or assessed fees which are, or may become, due by reason of this Agreement.

Contractor does hereby indemnify and shall hold harmless VHI, and its directors, officers, and any employees and agents from and against all liability (including punitive damages) and costs (including reasonable attorneys' fees) arising out of a claim or claims of third parties arising from the use by Contractor, in any manner, of the Data Base, including (but not limited to) the violation of any third party's privacy rights.

CONTRACTOR AGREES THAT THE DATA BASE IS BEING PROVIDED AS IS AND ALL WARRANTIES, WHETHER BY COMMON LAW, STATUTE, OR EQUITY, ARE EXCLUDED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (WHETHER OR NOT VHI KNOWS, HAS REASON TO KNOW, HAS BEEN ADVISED, OR IS OTHERWISE IN FACT AWARE OF ANY SUCH PURPOSE). CONTRACTOR ACKNOWLEDGES THAT VHI ONLY COMPILES THE INFORMATION CONTAINED IN THE DATA BASE, AND DOES NOT INDEPENDENTLY VERIFY OR WARRANT THE ACCURACY OF SUCH INFORMATION.

CONTRACTOR AGREES THAT VHI SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Contractor has read and agrees to abide by all terms and restrictions described above regarding the use of Virginia Health Information (VHI) patient level data.

VIRGINIA HEALTH INFORMATION

By: _____
Name: _____
Title: _____
Date: _____

CONTRACTOR

By: _____
Name: _____
Title: _____
Date: _____

VHI License No. _____

revised 10/07/97

Appendix A**Description of the Data Base****Research Use File-RES1**

The Research Use File-RES1 is a data file of all hospital discharges in the Commonwealth of Virginia for the identified quarter. Claims data elements are included for patient demographics, diagnoses and procedures, charges, and revenue center codes and units. Co-morbid conditions have also been added to aid in determining variations in patient outcomes. An encrypted patient social security number is included to allow the researcher to track multiple hospital admissions for the same patient without divulging the patient's identity.

APPENDIX D—ORDER FORMS

PUBLIC USE FILE-PUF1 ORDER FORM

RESEARCH USE FILE-RES1 ORDER

Many users of Virginia's patient level data prefer that data be provided on compact discs (CDs). To best meet user's needs, these discs contain data using the ISO 9660 Interchange Level 1, Implementation 1 Requirements. Virginia Health Information's adherence to these standards allows most users to access the data on CD. The discharge data files on the CD can be in either SDF (ASCII) or DBF formats. Persons with Macintosh systems may access the discharge data files stored in the SDF format. All support files are in the SDF format and should be accessible on multiple computer platforms. To date there are no multimedia or other program utilities that accompany the data on the CD.