



Guidebook

**Guidebook for the HERC Person-Level Cost Datasets
FY1998 – Present**

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1. Overview of the Person-Level Cost Datasets

The person-level cost datasets contain total annual costs for VA care received by each individual who used the VA health care system. Currently spanning FY98-present, these data allow researchers to determine the annual costs of individual patients without needing to extract and summarize stay and visit level information from numerous VA databases.

The person-level cost datasets contain one record per individual, as identified by their scrambled social security number (SCRSSN), per fiscal year. They are sorted by SCRSSN. Each dataset contains detailed costs for five categories of inpatient care and four categories of outpatient care. Each also includes total pharmacy costs and total non-VA medical care (formerly Fee Basis) costs. Inpatient length of stay is detailed by category; outpatient visits are totaled for all categories together (not divided by category).

The person-level cost datasets are named PLCOSTXX (where the XX refers to the fiscal year of the dataset). To gain access to the person-level cost data, follow the appropriate request process for research or operational access to the Medical SAS (MedSAS) data at the VA Corporate Data Warehouse. The most current information on the request process can be found on the VHA Data Portal at <http://vaww.vhadataportal.med.va.gov/>.

The person-level files can be found at the VA Informatics and Computing Infrastructure (VINCI) and on the SAS Grid. The files at VINCI can be accessed at [\\vhacdwsasrds01.vha.med.va.gov/HERC](http://vhacdwsasrds01.vha.med.va.gov/HERC). The files on the SAS 9.4 Grid can be accessed at /data/prod/HERC on the server VHACDWSASGSUB1.VHA.MED.VA.GOV. Please note that the VINCI files are only available behind the VA firewall and users must have VINCI clearance in order to access the location. The SAS Grid can only be accessed from within a grid connection or from a secure FTP. **Note:** These locations are part of the internal VA website that is not available to the general public.

Inpatient stays beginning in one fiscal year and ending in another have had their costs allocated between the fiscal years based on the proportion of days of stay in each fiscal year.

2. Inpatient and Outpatient Costs

Inpatient and outpatient care costs were estimated using a methodology developed by the VA Health Economics Resource Center (HERC). Because the VA does not routinely generate patient bills, cost information at the stay and visit levels cannot be directly determined. To allow costs to be analyzed, HERC developed an average cost methodology to estimate a cost for each outpatient encounter and inpatient hospital stay in the VA. This methodology assigns each inpatient stay the average cost of all inpatient stays that share its same demographic and discharge characteristics. Likewise, each outpatient visit is assigned the average cost for all visits with the same CPT codes and visit type.

Assigning costs in this way allows for cost estimates to be assigned comprehensively to all VA care. However, these cost estimates may not always be appropriate to use in all analytical situations. Because similar health care encounters will necessarily be assigned the same costs, cost differentials between interventions that are close substitutes cannot be determined using this data. Further, the

HERC cost estimates do not reflect VA practice patterns or productivity. All similar services are assigned identical costs, regardless of the individual inputs involved. Finally, outpatient costs reflect incomplete data on prosthetics services.

For each inpatient stay and outpatient visit, HERC estimated two costs: national and local. National costs were estimated such that they sum to the total national expenditures for VA care (divided by care category) as reported in the Cost Distribution Report (CDR). Local costs were estimated similarly, but reconcile to the total VA expenditures by care category at the medical center level as reported in the CDR. For example, the sum of HERC's national cost estimates for ambulatory care is equal to the total CDR expenditure for ambulatory care in the nation. Likewise, the sum of HERC's local cost estimates for ambulatory care in a given medical center is equal to the total CDR expenditure for ambulatory care in that medical center.

Both national and local costs are included in the person-level cost datasets. Local costs are reported as overall totals for each individual, one for inpatient care and one for outpatient care. National costs are reported both as overall totals, and broken down into five categories of inpatient care and four categories of outpatient care.

A more detailed description of how the HERC costs were estimated can be found in the following publications: *HERC's Average Cost Datasets for VA Inpatient Care* and *HERC's Outpatient Average Cost Dataset for VA Care*. These documents, as well as a summary of the average cost methodology can be found on the HERC website at: http://www.herc.research.va.gov/methods/methods_cost_ac.asp.

3. Pharmacy Costs

Pharmacy costs were obtained from the Managerial Cost Accounting System (MCA; formerly Decision Support System) national data extracts (NDE) pharmacy SAS datasets stored at the VA Corporate Data Warehouse (CDW). Documentation for this data can be found in the following publication: *VIREC Research User Guide: VHA Pharmacy Prescription Data*. This document can be found on the VIREC website at: <http://www.virec.research.va.gov/>. Please note that pharmacy costs are not available for FY98. They were not routinely collected until FY99. Please note that these costs have not been audited by HERC. They are simply reported as found in the MCA NDEs. As such, negative values and implausibly large values may be encountered.

4. Non-VA Medical Care Costs

Non-VA medical care (formerly Fee Basis) costs were obtained from four non-VA medical care datasets: Inpatient, Ancillary, Outpatient, and Pharmacy. Non-VA medical care encounters appear in the non-VA medical care dataset year in which the claim was paid, not in the year the service was rendered. A non-VA medical care service may be provided in FY06, but not paid until FY10 causing the encounter to first appear in one of the FY10 non-VA medical care datasets.

To calculate the total non-VA medical care cost per person per year, we used the dates of service from the FY00 to FY11 non-VA medical care datasets. We have not included non-VA medical care costs in the Person-Level Cost datasets for fiscal years for which we do not have at least two years of follow-up data since there is typically a long lag time between the encounter and payment. Personal non-VA

medical care cost in the Person-Level Cost datasets is the sum of all of an individual's non-VA medical care encounter costs for the fiscal year.

For annual person-level cost, please see HERC's webpage at:
<http://www.herc.research.va.gov/data/tabulations.asp>.

Table 1: Variable Directory and Description

Name	Label
COSTL	TOTAL LOCAL INPATIENT COST
COSTN	TOTAL NATIONAL INPATIENT COST
INPT_1	NATIONAL INPATIENT COST – MED/SURG
INPT_2	NATIONAL INPATIENT COST – BEHAVIORAL
INPT_3	NATIONAL INPATIENT COST – LONG TERM CARE
INPT_4	NATIONAL INPATIENT COST – RESIDENTIAL/DOM
INPT_5	NATIONAL INPATIENT COST – OTHER
LOS	TOTAL INPATIENT LENGTH OF STAY
LOS_1	INPATIENT LENGTH OF STAY – MED/SURG
LOS_2	INPATIENT LENGTH OF STAY – BEHAVIORAL
LOS_3	INPATIENT LENGTH OF STAY – LONG TERM CARE
LOS_4	INPATIENT LENGTH OF STAY – RESIDENTIAL/DOM
LOS_5	INPATIENT LENGTH OF STAY – OTHER
NUMOPREC	TOTAL NUMBER OF OUTPATIENT RECORDS
OLCOST	TOTAL LOCAL OUTPATIENT COST
ONCOST	TOTAL NATIONAL OUTPATIENT COST
OUTPT_1	NATIONAL OUTPATIENT COST – MED/SURG
OUTPT_2	NATIONAL OUTPATIENT COST – DIAGNOSTIC
OUTPT_3	NATIONAL OUTPATIENT COST – BEHAVIORAL
OUTPT_4	NATIONAL OUTPATIENT COST – OTHER
PHAR_CST*	TOTAL MCA (DSS) PHARMACY COST
FB_TOTAL*	SUM OF ALL OF AN INDIVIDUAL’S NON-VA MEDICAL CARE COSTS
SCRSSN	SCRAMBLED SOCIAL SECURITY NUMBER
TOTHERC	TOTAL NATIONAL COST (INPATIENT + OUTPATIENT)
TOTPLCST	TOTAL COST (INPATIENT + OUTPATIENT+NON-VA MEDICAL CARE)

*PHAR_CST variable is not available for FY98

*FB TOTAL variable in not available for FY98, FY99, FY10, and FY11

COSTL – TOTAL LOCAL INPATIENT COST

Description: The total local cost of all inpatient care during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

COSTN – TOTAL NATIONAL INPATIENT COST

Description: The total national cost of all inpatient care during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

INPT_1 – NATIONAL INPATIENT COST – MED/SURG

Description: The total national cost of all inpatient care in the medical and surgical categories (category 0 (medical) and category 4 (surgical)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

INPT_2 – NATIONAL INPATIENT COST – BEHAVIORAL

Description: The total national cost of all inpatient care in the behavioral categories (category 5 (psychiatry) and category 6 (substance abuse)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

INPT_3 – NATIONAL INPATIENT COST – LONG TERM CARE

Description: The total national cost of all inpatient care in the long-term care category (category 9) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

INPT_4 – NATIONAL INPATIENT COST – RESIDENTIAL/DOM

Description: The total national cost of all inpatient care in the residential and domiciliary categories (category 8 (domiciliary) and category 10 (PRRTP)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

INPT_5 – NATIONAL INPATIENT COST – OTHER

Description: The total national cost of all inpatient care in all other categories (category 1 (rehabilitation), category 2 (blind rehabilitation), category 3 (spinal cord injury), and category 7 (intermediate)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS – TOTAL INPATIENT LENGTH OF STAY

Description: The total number of days of all inpatient care during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS_1 – INPATIENT LENGTH OF STAY – MED/SURG

Description: The total number of days of all inpatient care in the medical and surgical categories (category 0 (medical) and category 4 (surgical)) during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS_2 – INPATIENT LENGTH OF STAY – BEHAVIORAL

Description: The total national cost of all inpatient care in the behavioral categories (category 5 (psychiatry) and category 6 (substance abuse)) during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS_3 – INPATIENT LENGTH OF STAY – LONG TERM CARE

Description: The total number of days of all inpatient care in the long term care category (category 9) during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS_4 – INPATIENT LENGTH OF STAY – RESIDENTIAL/DOM

Description: The total number of days of all inpatient care in the residential and domiciliary categories (category 8 (domiciliary) and category 10 (PRRTP)) during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

LOS_5 – INPATIENT LENGTH OF STAY – OTHER

Description: The total number of days of all inpatient care in all other categories (category 1 (rehabilitation), category 2 (blind rehabilitation), category 3 (spinal cord injury), and category 7 (intermediate)) during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

NUMOPREC – TOTAL NUMBER OF OUTPATIENT RECORDS

Description: The total number of outpatient visits during the fiscal year.

Data Type	Numeric
Years Available	FY98 – Present

Data Type	Numeric
Data Source	HERC average cost data

OLCOST – TOTAL LOCAL OUTPATIENT COST

Description: The total local cost of all outpatient care during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

ONCOST – TOTAL NATIONAL OUTPATIENT COST

Description: The total national cost of all outpatient care during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

OUTPT_1 – NATIONAL OUTPATIENT COST – MED/SURG

Description: The total national cost of all outpatient care in the medical and surgical categories (category 21 (medical) and category 28 (surgical)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

OUTPT_2 – NATIONAL OUTPATIENT COST – DIAGNOSTIC

Description: The total national cost of all outpatient care in the diagnostic categories (category 23 (ancillary services) and category 25 (diagnostic services)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

OUTPT_3 – NATIONAL OUTPATIENT COST – BEHAVIORAL

Description: The total national cost of all outpatient care in the behavioral categories (category 29 (psychiatry) and category 30 (substance abuse treatment)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

OUTPT_4 – NATIONAL OUTPATIENT COST – OTHER

Description: The total national cost of all outpatient care in all other categories (category 22 (dialysis), category 24 (rehabilitation), category 27 (prosthetics), category 31 (dental), category 32 (adult day care), category 33 (home care), and category 99 (unidentified stops)) during the fiscal year, as calculated using the HERC average cost methodology.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data

PHAR_CST – TOTAL MCA (DSS) PHARMACY COST

Description: The total MCA pharmacy cost accrued during the fiscal year. Note: There are 55 records with negative total pharmacy costs in FY01, 1,297 records with negative pharmacy costs in FY02, and 1,002 records with negative pharmacy costs in FY03.

Data Type	Numeric
Years Available	FY99 – Present
Data Source	MCA daily pharmacy cost data

FB_TOTAL- SUM OF ALL OF AN INDIVIDUAL’S NON-VA MEDICAL CARE COSTS

Description: Non-VA medical care costs were obtained from four non-VA medical care datasets: Inpatient, Ancillary Outpatient, and Pharmacy. Non-VA medical care encounters appear in the non-VA medical care dataset year in which the claim was paid, not in the year the service was rendered. We therefore have not included non-VA medical care costs in the Person-Level Cost data for fiscal years for which we do not have at least two years of follow-up data since there is typically a long lag time between the encounter and payment.

Data Type	Numeric
Years Available	FY00 – FY09
Data Source	Four non-VA medical care cost data

SCRSSN – SCRAMBLED SOCIAL SECURITY NUMBER

Description: Scrambled social security numbers created through formula manipulation of patient real social security numbers (SCRSSNs are non-random, allowing patients to be tracked across datasets).

Data Type	Numeric
Years Available	FY98 – Present
Data Source	Formula manipulation of Patient (2) file real SSN

TOTHERC – TOTAL NATIONAL COST (INPATIENT + OUTPATIENT)

Description: The total national cost of all inpatient and outpatient costs, as calculated using the HERC average cost methodology. Note: This figure does not include annual MCA pharmacy costs and non-VA medical care costs.

Data Type	Numeric
Years Available	FY98 – Present
Data Source	HERC average cost data (inpatient and outpatient)

TOTPLCST – TOTAL COST (INPATIENT + OUTPATIENT+NON-VA MEDICAL CARE)

Description: The total national cost of all inpatient and outpatient costs, as calculated using the HERC average cost methodology, and personal non-VA medical care costs during the fiscal year as well. Note: This figure does not include annual MCA pharmacy costs.

Data Type	Numeric
Years Available	FY00 – FY09
Data Source	HERC average cost data and non-VA medical care cost data