Resource Requirements Methodology

User’s Guide

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An Overview of the IHS Resource Requirements Methodology

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An Overview of the IHS Resource Requirements Methodology

The purpose of this manual is to provide persons using the Resource Requirements Methodology (RRM) of the Indian Health Service directions on how to complete the worksheets that link to the RRM formulas. The instructions also inform the RRM user as to where needed information can be obtained and other information that is useful when completing the worksheets. Users should also consult the Online Reference Manual on the RRM website for information on the formulas used to compute types of staff at the following website:
https://www.ihs.gov/dper/planning/facilityplanningtools/

The Indian Health Service (IHS) Resource Requirements Methodology (RRM) is a computer spreadsheet program to assist with the preparation of staffing estimates. The system is designed to automate the planning process for a particular facility, population, or operating unit. In doing so, essential workload information is gathered that provides the driving variables for each discipline. The goal of the RRM2007 program is to help ensure the IHS provides appropriate, reasonable and quality staffing information to Congress and Tribes. The main purpose of the RRM model is to project staffing that will be used in the development of Program Justification Documents (PJD), Project Summary Documents (PSD) or tribal requests for technical assistance in the submittal of HUD Block Grant proposals (or for justification to other funding sources). The RRM is also a tool used by health administrators to analyze, evaluate and plan staffing patterns for existing facilities or population bases. It is used to develop budget requests for new staffing and together with the Health Systems Planning (HSP) Process to estimate space needed for planning. In developing the computer program, experts in the various disciplines have recommended staffing ratios based on various workload factors. Many of the disciplines compared staffing ratios with industry standards, as well as benchmark information from existing IHS facilities.

The current RRM developed from a manual standard system known as Resource Allocation Criteria (RAC) to estimate staffing needs developed in the 1970s. In the 80’s, the process was automated and became known as the Resource Requirements Methodology Needs Assessment (RRMNA). It has been continuously updated to reflect new discipline and staffing needs as resources permit resulting in the current version, RRM2007. The Matrix on the RRM website traces the changes to the automated RRM

The RRM2007 contains healthcare, administrative and support disciplines (or tabs) in four major groupings:
- Inpatient and Ancillary
- Ambulatory
- Community
- Operations (Administration and Facility Management)

The final tab in the RRM table is a summary sheet of the FTEs generated by the RRM based on the information provided in the input tables.

The RRM2007 was developed jointly by the Area Planning Officers, the Office of Public Health Support/Headquarters (OPHS), Office of Environmental Health and Engineering (OEHE)/Headquarters and senior clinicians and administrative managers from the Office of Clinical and Preventive Services, with experience in providing and managing direct patient care.
I. INTRODUCTION

The Resource Requirements Methodology (RRM2007) is an Excel spreadsheet available on the Planning and Evaluation web site at

https://www.ihs.gov/dper/planning/facilityplanningtools/

The comprehensive RRM2007 is used for facility planning purposes in conjunction with the Health System Planning (HSP) process, healthcare planning software also available under the HSP tab on the Planning, Evaluation, and Research Website. To properly use the RRM the user must have the latest version of the HSP as it provides the current user populations, work load estimates and space information that are needed for the RRM worksheets. For this reason the user must “run” HSP before beginning inputting data on the RRM worksheets. After the RRM staffing outputs are generated they must be transferred to the HSP to have the correct space needs calculated.

The RRM is designed for planning small hospitals, ambulatory clinics and facilities with a small number of low acuity beds called alternative rural healthcare centers in the RRM. The smallest facility for which the RRM should be used should provide at least 6450 primary care provider visits year (visits to a primary care provider). For smaller facilities consult the Small Ambulatory Care Facility Criteria available from the Division of Planning, Evaluation and Research. Facilities with a large number of beds (> 50 beds) or major medical centers may require additional staff not included in the RRM and will need a special study.

To use the RRM for purposes other than facility planning, the user may or may not use HSP. To define existing staff needs, current population and workload for a given population can be used. To define projected staff needs it is best to run the HSP to get projected population and workload.

The RRM2007 Reference Manual, a companion to this guide, summarizes the assumptions that were made in developing the RRM2007 and describes how the staffing is calculated.

II. What You See

The RRM2007 has 8 major tabs within an excel workbook. Most users will only be concerned about the first three tabs, which contains pages of data input

- Fac Info
- INPT WKLD
- OutPt WKLD

The next four tabs display the positions, the formulas used to calculate the numbers of FTE and displays them:

- INPATIENT & ANCILLARY – FTE
- AMB – FTE
- OPS_FTE
- COMM - FTE

These four tabs describe show how the RRM criteria were used for each position. These tabs will only be changed or revised by IHS Headquarters. The only exceptions are the additional or adjustments that may be proposed.

The final tab is the output of the RRM2007:

- FTE List lists each position and the number of FTE’s.
III. USING RRM2007

**Loading RRM2007**
Excel users can retrieve the spreadsheet from the Planning and Evaluation Web site by *double-clicking* with the mouse on the RRM20007.XLS file from the Planning Evaluation and Research website https://www.ihs.gov/dper/planning/facilityplanningtools/. Before inputting any data, the RRM user should make a copy of the master program. The copy should then be saved under a different name, preferably under the Operating Unit’s (OU) name. In this way, a blank master copy of the RRM20007.XLS will always be available. EXCEL users can use the *File-Save As* command to rename the file.

**Scrolling - Using tabs**
The user will need to scroll downward through the spreadsheet to access and view the pages to be printed. If a value made during data entry needs to be changed/corrected, scroll to it, delete it and enter the correct value. The output will change to the new staffing projection automatically. The tabs on the bottom of the spreadsheet can be clicked with the mouse to change from Fac Info to INPT WKLD, etc. The middle four tabs are used if deviations are being proposed. Section VIII of this manual discusses deviations. RRM2007 users can, however, tab and scroll through the work areas to analyze how the formulas work. Many of the cells are not subject to modification. If there are modifications to be made, IHS Headquarters will provide the revised computer programs to each Area.

**Protected Cells**
Most cells of the RRM2007 are protected (locked) against accidental alteration. Cells requiring data entry by the user are not protected and are designated by the yellow color. The other unprotected cells are designated by a blue or turquoise color. The blue/turquoise cells provide the option to override the RRM calculation(s). If the RRM user decides to override the RRM calculation(s), then there must be sufficient justification attached that would enable the RRM validation committee to validate the RRM results.

**Notes on Input**
The light green cells of the input sheets can be used by the user to make notes on the input for that variable. This is especially useful when there are changes in the standard value entered for that variable.

**Printing**
To print the results of the RRM2007, use the print command within EXCEL on each TAB. The page breaks and Print Ranges have been preset to print only the result. If you desire to print the work areas, the print ranges and page breaks will need to be reset by the user using the commands on the EXCEL menus.

**Saving Files**
After input of the data, the user may desire to save a copy of the completed spreadsheet. It is recommended that you save individual project RRMs with different names that indicate the date of
any changes to prevent confusion over entry and output information. For purposes of a national IHS application of RRM, you will be given instructions regarding saving OU files.

**Formula Cells**

Most cells with formulas are protected from changes. There are cells, however, that have formulas but are **not protected**. In these cells, the user has two options: to let the formula provide the entry or to over ride the formula with the users’ own entry. The cells have been left unprotected in order to allow the user to bypass the automatic calculations. IHS Headquarters will provide directions and updates to the formulas, including the data entry cells.

**USER NOTE:** To delete any number in any cell use “delete” key or “0”, **not** space bar, because the spread sheets read a space bar as a text field and will not calculate.
IV. Data Input – FACILITY INFO INPUT WORKSHEET

Prior to entering data into the RRM2007 computer program, the user must first gather the following information:

- **Workload**
  - Direct Inpatient Days
  - Direct Inpatient Births
  - Direct Surgical Cases
  - Admissions in Private Hospitals
  - Direct Primary Care Provider Visits

- **User population**
  - Active Users
  - Inpatient Population
  - Outpatient Population
  - Community Health Population
  - Census Population

The data will need to be separated by Operating Unit (or Service Unit, or by facility or other designated service area being studied) and projected to the year of facility opening or the year of planning projection. The results from the Health Service Planning (HSP) system can be used since it projects workload obtained from the Data Center. The workload results from HSP are considered the official IHS numbers used for official reporting to Congress, facility planning, and other reports. RRM2007 users may use numbers other than from HSP; however, the results may or may not be certified by the IHS. If the HSP projections are not used, using the percentage change to the year of opening in the HSP to project alternative approved numbers is suggested.

The *HSP output*, however, is recommended, since it will make it easier for the Headquarters staff to validate the Area and OU population and workload figures.

If you intend to project EMS staff the information you need for this page is:

**IHS or Tribal (I/T) Services**
- Percentage of EMS runs provided using contract health service funds
- (Percent I/T EMS runs purchased)
- Total Population served by EMS (Total Population)
- Total Area to be served (Square Kilometers Served)
- Driving time and distance to nearest emergency room.

**Display**

The *Facility Information (Fac INFO)* is shown on the first tab of RRM2007:

**General Description**

Located at the top of the *Fac INFO*, the user will input facility or operating unit information. There is no set format for entering this data as it is used for informational purposes only.
The next step will be to input the OU (or facility) specific name, population, workload, and facility data as indicated. The following instructions coincide with the line-number on the printed RRM spreadsheet. The following instructions do not coincide with the cell number of the excel spreadsheet. The input cells are in yellow and the blue cells will override formulas.

**Line No. 1: HSP Project Name:** Enter the name of the project as it is entered in the HSP program for this facility.

**Line No. 2: Facility Name:** Enter the name of the facility, service unit or operating unit that will be using the RRM.

**Line No. 3: Contact:** Enter the name and phone number of the Area Planner, person that prepared the RRM or other person that can answer questions regarding the data input.

**Line No. 4: Area:** – Select the name of the Area Office where the facility is located from the drop down menu.

**Line No. 5: Service Unit – Name:** Enter the name of the IHS service unit or tribal operating unit where the facility is located. This name may be the same as line no. 1 above. The facility code is described in the Standard Code Book. Enter the four digit area and service unit code as identified in the IHS Standard Code Book.

**Line No. 6: Facility – Code:** Enter the two digit facility code as described by the Standard Code Book.

**Type of Facility:** Select the type of facility being planned from the drop down box. To qualify as a Health Center, the facility must be open at least five days per week with a minimum workload of 6450 PCPV’s. To prevent the use of the RRM inappropriately, the RRM will no calculate FTE’s unless 6450 PCPV’s are entered. A general care hospital is one that provides services to the local population. Alternative Rural Healthcare (AHR) facility without birthing unit and ARH with birthing unit is a facility providing a broad range of ambulatory/clinical care and limited inpatient care including emergency room services and low acuity inpatient care. The facility may also include low risk birthing services. This facility does not provide Surgery, C-Sections or ICU services. (User population is 6,000 or more, with an inpatient ADPL OF 2-12.) A Medical Center is a large hospital that provides specialty care and has patients referred to it from other hospitals in the region; the RRM program is not suited for medical centers.

**Salary Estimated Budget Year:** This is only used internally for budget estimation.

**Facility Space Estimates:**
The following section (Lines 7 thru 11) should be completed AFTER the HSP has been completed.

**Line No 7: HSP Building Summary Area:** Use the POR/Building Area Summary report for the Total Gross Square Meters from HSP or other approved space.

**Line No 8: Number of Quarters:** Enter the estimated number of quarters at the facility. At this time this is an estimate and is not finalized until a Quarters PJD is approved.

**Line No 9: Quarters Space** The cell shows the building gross square meters for quarters based on a general estimate that each quarter is 1,800 gross square feet. Cell 18D can be used to override Line 17 if the Quarters space is known.

**Total Square Meters:** RRM calculates this number.
Line 10: Parking Spaces: These are the parking spaces for the facility and can be obtained from the Parking Summary section of the HSP.

Grounds Estimates
Calculated Hectares: This is the land area required for the Health Care Facility using a look-up table contained in the OEH Technical Handbook, Site Selection. This also includes land area required for staff quarters plus 5% for staff quarters recreational facilities. This cell is protected and no additional data entry is needed.

Line No 11: Area of Grounds (Override):
Hectares of Ground (Override): You can override the calculated hectares on Line 17; however, the change must be documented. Enter only the amount of land that is maintained by the facility grounds keepers, not the total campus acreage. Entering an amount here is optional.

Population:
The population figures come from the HSP Report on User Population. The user population is only entered for those services that will be provided at the proposed facility.

Line No 12: Inpatient Population: Enter User Population for Inpatient Services from HSP User Pop report for a hospital or Alternative Rural Healthcare facility. The results from the HSP should be used since they represent the official IHS numbers. Do not enter information on this line if the facility is an outpatient or ambulatory center.

Line No 13: Ambulatory Population: Enter the User Population that will be using the ambulatory services from the HSP User Pop

Lines No 14-20: Enter the User population that will be used for the remaining services. The HSP numbers should be used. Note that in line 20, Public Health Nursing, the PHN module uses either the census population or active user population to generate staffing projections. Enter the population that is greater.

Line No 21: Emergency Medical Service: Add EMS population, if you are planning to provide EMS services and line 23 must be YES.

Line No 22: Health Education: Enter active user population for this service

OTHER FACTORS
Line No 23: EMS Program: Select yes if plan to have EMS program.

Line No 24: Percent of Total Runs Purchased: Enter the percent of EMS runs that are paid for with contract health service funds or by private resources.

Line No 25: Square Kilometers served by EMS: The total area served by the proposed EMS program.

Lines No 26-27: Driving Time to Nearest Emergency Room: Enter YES on the appropriate line 23 if an ER is planned. Select the line that describes the driving time to the nearest hospital with an emergency room. If the health facility exceeds the 100 km criteria or over 90 minutes criteria the staffing for ER will be generated if there are any ER/after hours PCPVs. If the health facility meets the 64 km or over 60 minutes criteria and there are more than 3000 ER/after hours PCPVs ER staffing will be generated. Also on the Outpatient workload sheet the ER, line 5, the YES box needs to be selected.
Line No 28: Patron Rations: Enter YES if the food services department prepares meals for staff and visitors.

Line No 29: 24-Hour Security: Enter yes if 24/7 security is planned for the facility. Note: Center with 24 hour coverage uses building area, patient + visitor + staff, and ER visits Health Center without 24/7 coverage uses area only without FTE for night security. Both can request additional staff via deviations for areas with high crime rates and special services.

Line No 30: Health Education: Check all those services/sites that the health education staff will provide.

Line No 31: Occupation Safety: Select if the staff provides disaster management, accreditation, security management or serves satellite clinics

Line No 32: Wellness Center Weekly Operating Hours: Select the appropriate number of hours for the Wellness Center.
V. Data Input - OUTPATIENT WORKLOAD INPUT WORKSHEET

Prior to entering data into the RRM2007 computer program, the user must first gather the information from the HSP and other information, if applicable, as shown below.

Display
The OUTPATIENT WORKLOAD worksheet (OutPt WKLD) is shown on tab 3 of RRM2007.

General Description
Located on the OutPt WKLD worksheet, the user will input outpatient workload information:

Line No 1: Primary Care Provider Visits (PCPVs): Data Source: Use the HSP Workload Summary - Primary Care visits being sure that specialty care visits are not included with them as specialty care is entered on a separate line. Do not include the visits contracted out. In column E, enter the % of the PCPVs that are Indian active users. If the PCPVs are less than 6450 use of the RRM is not appropriate and you must use the Small Ambulatory Facility Criteria or consult with the Area Planning Office.

Line No 1a: Physical Therapy Visits: Data Source: Use the HSP Workload Summary for both outpatient and inpatient. Enter the number of projected Physical Therapy visits from the HSP. This figure may combine the visits from neighboring service areas in the HSP run.

Line No 1b: Total Specialty Visits (TVS) for specialty care: Enter the total number of specialty care visits but do not include the visits that are contracted out. Specialty care work load is gotten from HSP. Specialty FTE should be entered by department area as deviations after approval by the Office of Clinical and Preventive Services.

Line No 1c: CHP Ambulatory Encounters: Community Health Practitioner/Aids are only used in Alaska as an optional means of meeting ambulatory care needs in small isolated villages to small to warrant a regular facility CHP visits are necessary to determine additional support programs; i.e., pharmacy, health records, laboratory and imaging.

Line No 1d: Podiatry Provider Visits (POPVs): Provided by HSP

Line No 2: Outpatient Visits (OPVs): If left blank, a RRM-calculated OPV figure will be given based on IHS average rates for Hospitals and Health Centers. The OPV can be overridden by entering a value in line 2. An override requires a justification.


Line No 3a: Extended Pharmacy Hours for Ambulatory care: Enter Number planned per day.

Line No 3b: Pharmacy Driven Clinic Visits/Day: Enter number planned per day

Line No 3c: Point-of-Sale Electronic Claims: Enter number per day

Line No 3d: Drive-Thru Pharmacy: Yes or No

Line No 3e: 24/7/ED Coverage Pharmacy: Yes or No

Line 4. Outpatient Surgery: The number comes from the HSP. (Do not use for hospitals).
Line No 5: Emergency Department Visits: Use the number generated by the HSP.

Line No 6: Emergency Room Level: Select the level indicated by the HSP.

Line No 7: # Patient Escort Hours, if provided: Patient escorts are only for when RNs are required to be present. Escort trips are normally from the health center/hospital OPD to a higher level care facility. This does not include patient transport from the home to the health center or hospital OPD. Input the total number of hours per year to do all RN-accompanied trips. Usually this information is provided by the facility nursing department. It can be projected to the planning year based on the population growth rate in the HSP.

Lines No 8-10 Click on one of the following:
- Part Time PHN School Services?
- Full Time PHN School Service?
- No PHN School Service

Line No 11: Discharge Planning by PHN? The Calculation for discharge planning will only be used in areas served by free standing health centers, contract hospitals and/or IHS hospitals without discharge planning services. To prevent duplication, this service will not be estimated where existing discharge planning services are provided.

Line No 12: # of Weekly One Hour PHN Managed Clinics: Examples of PHN-managed clinics are: screening, well child, family planning, chronic disease and communicable disease and others. By inputting 1 hr/week, the RRM planner is stating that 52 hours in a year are committed to specialty clinics.

Line No 13: # of CHRs Supervised: If the IHS operates the PHN program, in most cases the entry will be zero. If tribally operated, enter the number of CHRs being supervised by the PHN. Enter a number only if PHNs are supervising CHRs.

Line No 14: Are Interpreter Services Required? This entry requires justification: What is required to justify? Use census reports that have the number of non-English speaking people.

Line No 15: Percent of Population Requiring Interpreter Services: It is recommended no more than 5% of the User Population will require Interpreter Services. Percentages higher than 5% will require justification.

Line No 16: # of PRC PURCHASE ORDERS: Enter the yearly total of PRC purchase orders, obtained from the Area PRC office. They can be projected to the planning year by using the HSP population growth rate.

Line No 17: Does the Facility use RCIS? Select yes or no.

Line No 18: Number of OEHE Staff: This figure is provided by the Area Office of Environmental Health.
VI. Data Input - INPATIENT WORKLOAD INPUT WORKSHEET

Prior to entering data into the RRM2007 computer program, the user must first gather information from the HSP.

Display

The INPATIENT WORKLOAD worksheet (INPT WKLD) is shown on second tab of RRM2007.

General Description

Located on the INPT WKLD, the user will input inpatient workload information:

Line 1: Admissions: This is an override box. It should be filled in unless there is a justification for not using the bed days from the HSP that are placed in lines 5-13 that are used to calculate admissions.

Line No 2: Projected # of Deliveries: Input projected births from the HSP workload summary sheet. The number of births for small birthing centers (which are part of a sub-acute care unit) may not show up on the HSP in which case you need to input your own number…but it must be verifiable.

Line No 3 # Inpatient General Surgical Cases: Input the projected surgical cases from the HSP Workload Summary Sheet.

Line No 4: Total Number of Beds: Input the total number of beds in the facility, including ICU/CCU. Use the number given by the HSP unless there is HQ approval to use another number.

DAYS and Nursing Stations

In column E (Onsite days), enter the number given by the HSP. In column F, enter the number of separate Nurse Stations.

Line No 5: General Medicine: In column E (Onsite days), enter the number given by the HSP. In column F, enter the number of separate GM Nurse Stations

Line No 6: Obstetrics/Gynecology (OB/GYN): In column E, enter the Postpartum and Antepartum days given by the HSP. In column F, enter the number of separate OB/GYN Nurse Stations.

Lines No 7: Surgery In column E, enter the On-Site Days from the HSP and nursing stations (if applicable) for Surgery.

Line No 8: Pediatric: In column E, use the pediatric bed days from the HSP and nursing stations (if applicable.)

Line No 9: ICU/CCU: In column F, enter the number of ICU/CCU Nursing Stations. Also check boxes if patients are stability, highly complex, vulnerability or resiliency level.

Line No 10: Psychiatric: In column E, enter the number of Psychiatric Days: Use the number given by the HSP.

Line No 11: Ambulatory Care: In column F, enter the number of Ambulatory Care Nurse Stations. Look at the template(s) in the HSP.
**Line No 12: Birthing Units:** In column E, enter the number of Birthing Unit Days: Use the number given in the HSP (Inpatient Tab 12, Low-Risk Birthing Unit).

**Line No 13: Other:** Enter the number of days and/or nursing stations that do not fit into the categories listed above. In the yellow cells under column D, enter the name of the approved service.

**Line No 14: Remote Location:** From the drop-down menu select if this is a remote location. The criteria for being considered a remote location is that the proposed facility be located in Alaska.
VII. Adjustments

Modules, services, disciplines or staff not contained in the RRM can be included as adjustments. The location of the input is shown in yellow at the bottom of the worksheets entitled:

- Inpt-Anc (Inpatient & Ancillary modules)
- AMB (Ambulatory modules)
- OPS (Facilities & Administration modules)
- COMM HLTH (Community Health modules)

The descriptions listed are only examples and are used as placeholders. Some of them have been used in previous RRM submittals as adjustments to the RRM. For example, Birthing Center, Traditional Healing, or Tribal Programs. Simply, write over the placeholder and enter the FTE that is being proposed. All adjustments require prior approval from Headquarters Staff before being included as a part of the RRM.
VII. Questions and Answers

Can the RRM2007 program be used to estimate staffing for health stations?
ANS: No, please consult the Small Ambulatory Facility Criteria.

Can the RRM2007 program be used to estimate staffing for medical centers?
ANS: Medical Centers require special studies utilizing consultants from the appropriate specialty disciplines.

Are Service Units restricted to the staffing projections from approved RRM2s?
ANS: The RRM2007 is used to estimate staffing prior to construction or funding. Once construction is completed and funding is received, the local service unit management staff has the discretion on what staffing will be hired. In most cases, only 85% of the estimated staffing (existing and new) is ever funded by the Congress under new construction.

What is a documented adjustment?
ANS: An adjustment that is approved in writing by the Office of Clinical and Preventative Services.

What is a justifiable adjustment?
ANS: An adjustment with supportable information to warrant approval by the OPCS Office of Clinical and Preventive Services. See Section VIII above for instructions on including adjustments in calculations.

What is verifiable data?
ANS: Data from an approval or published source that can be readily retrieved and/or replicated.