Introduction

The Field Epidemiology Data System (FEDS) consists of a group of files or tables linked together by the referral control number. The referral control number is required to enter data.

FEDS is designed to collect all pertinent information for each disease investigation at the appropriate level. The information from each level will be compiled so that each premises will have a full accounting of information from the initial investigation to the final outcome.

Data entry will be performed by the individual most knowledgeable about each segment. For example, initial investigation information is usually collected by the diagnostician (FADD) involved in the case. The laboratory results will be collected at the lab. The final outcome, such as the appraisal date or the quarantine release date, will be collected at the headquarters for the outbreak or by the Emergency Program staff responsible for routine investigations.

This system includes an online help program. The online FEDS Help Program can be accessed from the Main Menu and during data entry by pressing **F1**. Press **ESC** to exit the online help program and return to the data entry screen.

Hardware/software requirements

Hardware

Epi Info version 6.03 has the ability to work with upper memory. The command **ENTERX** allows use of more than one megabyte of memory and reduces problems associated with memory barriers common with Epi Info version 6.02. Therefore, the minimum machine requirements to run the FEDS system with ENTERX is a 386 computer with two or more megabytes of memory and 30 megabytes of free disk space. Disease Reporting Officers (DROs) are encouraged to have 100 megabytes of free disk space. A Pentium with 16 to 32 megabytes of memory running Windows 95 and one gigabyte of free disk space is the best choice for a DRO. If you are running Windows 3.1, change the Config.sys file to read FILES = 75 and BUFFERS = 40. To start the FEDS program in this mode, type **FEDS** at the DOS prompt while in the FEDS directory as shown below.

```
\FEDS>FEDS
```

This system will operate on a 286 computer, but processing time will be slow. For 286 machines and those 386 or 486 machines with only one megabyte of memory, you will still need to change the Config.sys file to read FILES = 75 and BUFFERS = 40. To start FEDS on machines of this type, type **FEDS286** at the DOS prompt while in the FEDS directory as shown below.

```
\FEDS>FEDS286
```

Laptops with monochrome displays, could have problems viewing the cursor and some prompts. If this problem occurs on your laptop, give us a call. We will see if something can be done to improve screen resolution.

Software

You must have Epi Info Version 6.03 or higher and load it before installing the FEDS program.

The best version of DOS for the FEDS system is 6.0 or greater. FEDS will work with DOS version 5.0 as long as you add the DOS 6.0 Move command (move.exe). This file is on your FEDS installation diskette. Copy move.exe to your DOS directory.

Installation Procedures

Step 1

Install Epi Info 6.03 first.

Follow the instructions on each screen when installing Epi Info. Answer the question about copying or installing with an **I** for install. Also make sure that the disk you are installing to is the **C** drive on your computer. Accept the default **C:\EPI6** directory. We recommend that EPI6 reside on the local drive even if FEDS is on the network.

Change the Config.sys file to read FILES = 75 (or greater) and BUFFERS = 40.

Make sure that **C:\epi6** is in the path in the Autoexec.bat file.

Step 2

Type **FEDSYS** at the A:\ prompt to unzip installation files. To install FEDS, type **FEDSINST_C:** from the A:\ prompt. Replace **C:** with the network drive letter for network installs.

Step 3

Change to the FEDS directory by typing **CD**, **a space**, **FEDS.**

```
\CD FEDS
```

Step 4 Type **FEDS** at the \FEDS prompt.

Step 5 Select the **Run Initial Setup** option from the Setup Menu.

Step 6 Type your full name and press **Enter**.

Step 7 Type the Investigator Code previously entered.

> Note: If the computer is used by the Area Office and accessed by several investigators, we suggest that you use a unique Area Office code.

Step 8 Type **Y** when asked "Is this correct ?"

Step 9 Select the **Enter Investigators** option from the Setup Menu.

Step 10 Enter the code supplied by Emergency Programs. Continue data entry of the investigator's name address and phone number.

> Note: More than one Investigator Code could be entered.

Step 11 Press **F10** to return to the Setup Menu.

Step 12 Select the **Customize County List** option from the Utilities Menu.

Step 12 From the Pick List, highlight the state(s) that will have investigations. Press **Enter** after highlighting each state. Highlight **Done** and press **Enter** when the selection of states is complete.

Keyboard Functions

The keyboard functions are typical of other database programs.

The **Enter** or **Down Arrow** keys will move you to the next field. The **Up Arrow** key will move you to the previous field. You must press **Enter** or **Down Arrow** to exit a field.

The **Left** and **Right Arrow** keys move you left or right within a data field.

The "almost" universal exit key in Epi Info is **F10**. The exceptions are help screens, menus, and unsuccessful searches, in which case you press **ESC**. If in doubt, try both.

CTRL N - clears the screen for entry of a new record.

ESC - exits the help program, pull down menus and search screens when no matching records were found.

F1 - accesses the Help Program and Help Program Menu.

F3 - in Find Mode, searches for a matching record from beginning of the file.

F4 - in Find Mode, searches for a matching record from end of the file.

F6 - marks a record for deletion. An asterisk appears by record number.

F7 - moves the cursor to the previous record.

F8 - moves the cursor to the next record.

F9 - accesses a pull down menu of allowable selections.

F10 - exits the file. When in the Status section, exits to the Main READI System Menu. When in other sections, moves to the next section.

CTRL F - enters the Find Mode.

ALT - activates the menu to select a related file. Also used at the FEDS start-up screen or Status Entry screen.

To save your data, type **Y** when asked "Write data to disk (Y/N/Esc) ?"

Moving from Section to Section

Press **F10** to move from section to section.

You cannot move backwards through these sections. If you need to go back to edit or look at an entry in a previous section, you will need to start at the premises section and move forward to the desired screen. You can also use the **View Selection** option and choose the individual sections you need to edit.

If a screen displays data from a previous investigation, press the **CTRL** and **N** keys simultaneously to clear the screen.

FEDS System Layout

The FEDS System is organized into two groups, Investigation and Laboratory. Each group has two or more sections or files. (See Appendix A.) The Investigation Group contains files for recording information on initial and follow-up investigations and ancillary work on individual premises. The Laboratory Group contains files to record information on laboratory submissions and results.

The FEDS system also has a series of look-up tables. These tables hold the codes for diseases, reasons for investigation, counties, and the investigator's identification.

FADDs using the system should open the Investigator's Identification table immediately after installation. The code supplied by Emergency Programs must be used along with the FADD's name, address, and phone number.

Section Overview

Investigation Group

Each of the following sections hold data in a separate table. The table name is in parentheses.

FEDS Startup Screen- Maintains the uniqueness of the Referral Control Number.

Premises (premises) - Premises owner, identification, and location information.

Investigation/Call (call) - Summary information of the investigation.

Species (species) - Susceptible species inventory, morbidity and mortality.

Exam (exam) - Results of the clinical or necropsy examination.

12-27B (12_27b) - Associated premises information. Includes adjacent premises traces of purchases or sales, movement of people or fomites, multiple owners or premises, and commercial carriers.

Status (status) - Status of a premises.

The typical progression through the screens/tables by the FADD is from Premises to Call to Species to Exam to 12_27B. The DRO during a disease outbreak or an Emergency Program staff member will use the Status screen/table to place information on the official status of the premises.

FEDS Startup Screen

This screen is is not a section, but rather a process to enter in a referral control number that ties all the investigation information together.

If the investigation is new, a new number is entered in this screen by pressing **N**. If you are doing follow-up data entry or just want to review investigation information, press **CTRL F**. The previously entered record will appear.

WARNING

If you incorrectly enter a referral control number, call for support. Do not enter a new number by typing over an old one!

Premises Section

Use this section to enter premises identification information. If the animal owner is different than the premises owner, enter that information in the 12-27B section.

You are allowed to enter only one record per referral control number.

The referral control number is carried over from the Start-up screen and does not have to be entered again.

When a portion of a premises, unit or barn, has been declared to be bio-secure, it essentially becomes another premises. Data entry for these premises are handled by separate investigations with different referral control numbers. These premises are identified by a naming convention in the Premises Name field. As an example, if you are talking about house number 1 of HyLine Poultry in Podunk, IA, put "HyLine Poultry, Podunk, IA, House 1" in the Premises Name field.

Directions can include information on the legal description. Directions help investigators locate the premises on a second visit. Directions also help when using Geographic Information Systems to locate the premises.

Pull down menus provide a listing of values for the Condition Reported field and the Type of Operation field.

When you reach the end of the record, the question "Write data to disk (Y/N/Esc) ?" will automatically be asked. Press **Y** and then **F10** to move to the Call screen.

Investigation (Call) Section

There is more information in this section than can be shown on one screen. Press the **Page Down** key to view the rest of the screen.

Use this section for both initial and follow up investigations. You are allowed to enter one record for each investigation date at a premises.

Enter information pertinent to the call in this section. This includes:

- the investigation type (initial or follow-up),
- date and time of the call at the premises,
- the FADD identification,
- reasons for going on the call,
- historical information (not including clinical signs),
- the FADD's evaluation of the primary differential diagnosis,
- laboratory submission identification and sample listing, and
- completion dates for activities.

The referral control number and name are carried over from the Premises screen. They do not have to be entered again.

The FADD code should already be entered for the FADD's name. You entered this before entering investigation information using the sub menu in the Database Menu. The computer will automatically place the FADD's name in the Investigator Name field. The format for entering name is last name, firstname and MI.

Enter the FADD's home phone number in the Investigator Phone field.

Enter the most important action completed on the investigation in the Reason for Investigation field.

The space for samples submitted is limited. List the type of samples, e.g., tissue, whole blood, serum, swab, etc. Do not list each organ sampled. The word “tissue” is adequate.

Use the pull down menus to access a list of values for the County and Lab fields.

Enter clinical history and epidemiological information in the Initial Investigation section. Significant epidemiologic information includes foreign visitors, international travel, garbage feeding, biosecurity, dead animal disposal, and information on animal, people, or fomite movement. Specific information on movement should be entered in the 12-27B section. Clinical examination results should be entered in the clinical exam section.

In the Follow up Investigation section, enter a summary of tasks completed, or the status of the disease.

Use the Keys fields to enter one or two key words that represent important aspects of the epidemiologic history. Data entry for the first two keyword fields are dictated by the selections in the pull down menu. Press **F9** to access a list of valid values. This will allow records to be selected based on these key words. Examples of key words are: garbage, foreign travel, foreign visitor, sales, additions, vectors, dead disposal, and area spread. Prioritize these key words and then enter them in that order. Limit these to the three or less most important words that describe the information in the historical portion.

The Field Evaluation allows you to classify the FADD’s suspicions of a foreign or emerging animal disease. Only three options are allowed: Neg, Sus, or Pos.

If you went out to investigate hog cholera, and it turns out to be an intoxication, enter **Neg** in this field. If you do find hog cholera or any other foreign animal disease, enter **Pos** or **Sus** in this field. If it is another foreign animal disease, enter it as the first disease in the Differential Diagnosis field.

Entry of at least one Differential Diagnosis is required. Place the most probable diagnosis on the first line, the second most probable on the second, and the third most probable on the third.

Enter information related to Activities as described below:

- Quarantine - Date a premises quarantine was placed.
- Appraisal - Date when appraisals were completed on the animals on the premises.
- No. - Total number of animals appraised.
- Cleaning - Date when cleaning was finished on the premises.
- Depopulation - Date last animal that needed to be removed was gone from the premises.
- No. - Total number of animals removed.
- Disinfection - Date premises disinfection was completed.
- Permit - Date permit(s) were issued for animal movement.
- The blank space is for the permit number.
- Quarantine Release - Date the quarantine was released.

- Repopulation - Date new animals will be able to be placed back on the premises.

- Vaccination - Date vaccinations were finished if vaccination was used.

- Vector Ctrl - Date vector control was applied at the premises.

- Other Date - This field will be used only as directed by the DRO or Emergency Programs staff during an outbreak. For example, in the 1995 VSV outbreak, this field would have been used for the date to start the 30 day count-down to quarantine release.

Press **F10** to continue. Press **Y** when asked "Write data to disk (Y/N/Esc) ?" The cursor will automatically go to the Species section.

Susceptible Species Section

You can only enter information on one species per screen. You can divide a species into groups by age, location, breed, or some other category and create multiple records. If you divide a species into a group, continue this grouping scheme for the examination section.

There is no limit on the number of species records you can enter for each referral control number.

The referral control number is carried over from the previous screen.

A pull down menu provides a list of valid values for the Species field.

Once you are finished entering species information, press **F10** to move the cursor to the Clinical Examination section.

Clinical Examination Section

The referral control number, Premises name, Investigator, and Inv. Date are carried over from the previous screens.

Pull down menus provide a list of valid values for Exam Type, Species and System fields.

Only clinical signs and/or necropsy results for one species group can be entered per screen.

You can use one record per animal examined, or use one record to summarize clinical signs and necropsy results for a larger species group of animals. Follow the grouping scheme you picked in the Susceptible Species section.

Examples of words to enter in the Description field are: breed, age, color, name and identification.

Pull down menus provide a list of valid values for the Species and System fields.

To enter clinical signs or necropsy results, select the Body System from the pull down menu and enter a one or two line description.

For clinical signs or necropsy results requiring more room for description, use the comments section, or repeat the process selecting the same Body System from the pull down menu.

Press **F10** when data entry of clinical signs or necropsy results is complete. Press **Y** when asked “Write data to disk (Y/N/Esc) ?” The cursor will automatically move to the 12-27B screen.

12-27B Section

Use this section to record information on all parties associated with the premises under investigation. Examples include: adjacent premises, traces of sales, traces of additions, multiple premises, multiple owners, owners different from premises owners, commercial carriers, and movement of equipment or people.

The Premises Num is a number given by the investigator and starts at 1 (The first associated premise = 1, second = 2 etc.)

Pull down menus access a list of valid values for the Type of Association and Trace Type fields.

The Trace Type field will be active only if **MOV** is selected as the Type of Association.

Next enter the identification information for the associated premises.

The details of the association should be entered in the comments section.

When data entry for associated premises is complete, press **F10** to return to the Start-up screen. If more investigations need to be entered, press **CTRL N** for new referral control numbers.

Status Section

The status table is meant to be used on a task force, headquarters, area, or staff level. It is not meant to be used on the field level and is not part of the process for electronic transmission of FAD investigations. However, it can be used on a field level to keep a summary of your FAD investigations.

When an investigation is initiated, and a referral control number is assigned, the preliminary investigation information is entered into the status table. The recommended fields to complete are color coded green.

After the files have been received from the field, the Update Status Summary utility is run. This will fill in all of the fields in the Status table except for the red fields.

Data is entered into the red fields as it becomes available. For those of you without color screens, these field are:

- DISCODE - The code for the disease being investigated. Use **FAD** for routine investigations.
- CASE - The case evaluation of the investigation.
- STATUS - The current status of the investigation.
- SEROLOGY - Serology results
- ISOLATION - Virus isolation, or bacteriology results
- HISTOPATH - Histopathology results

Data entry in the six red fields is required. Data entry into the green and blue fields occurs automatically when the Update Status Summary utility is run assuming one of the two following conditions apply:

- You are a field VMO and all of your investigation files are already on your computer. You can run the Update Status Summary utility and then enter the information in the six fields listed above.
- You are working on an area, staff, or headquarters level and have imported or directly entered all of the information from the field investigations.

Data entered into the green or blue fields will be overwritten by information imported from the field investigation files. The green fields contain the type of information that would probably be entered in a task force situation. What you keep track of pending receipt of the field files on an Area or staff level is entirely up to you.

If you don't have the field files available, there is nothing to prevent you from directly entering all of the information into the Status table. However, some of the reports will not work correctly without the field investigation files.

You can access the Premises, Call, Species, Exam, and 12-27B tables by two methods. To choose the table you wish to go to, press the **Alt-F** keys. A menu of tables will appear. To go through all of the tables automatically, go to the end of the screen and type **Y** when asked if you want to go to all related files.

Additional help on the Status table can be found under the help topic on "Help with using the utility to Update Status Summary", and in the help program for data entry.

The Status Summary table takes items of information from different tables and displays them in one location. In addition, types of data which are not present in the Field Investigation tables are entered directly into this table. This utility transfers the information from the Field Investigation tables to the Status Summary table. You should run this utility whenever the information in the Investigation Tables has been changed, either by the addition of new records, or after editing old records.

If you are using the DRO utilities to import files from the field, this utility will be run automatically. If you are a field VMO who wants to use the Status tables to keep track of your own investigations, then run this utility after you have entered your investigation. All applicable fields in this table will be filled in except for DISCODE, STATUS, CASE, SEROLOGY, ISOLATION, and HISTOPATH. You will need to enter information for these fields directly into the Status table.

Laboratory Group

The Laboratory Group includes:

- ELECTRONIC 10-4 (lab) - screen for entering the identification information found on a 10-4.

- LAB RESULTS (labtest) - screen for entering sample identification found on a 10-4 plus results.

Electronic 10-4 Section

Use this section for entering the information usually found at the top of a laboratory submission form. The form goes by its old name of VS 10-4 or 10-4. The information consists of the submitter name and address, owner information, testing requested, etc.

Only one 10-4 record can be entered for each set of samples submitted. Once the information identifying the submitter and owner are entered, the cursor moves to the Lab Results section.

Lab Results Section

Use this section for identifying the individual samples. For example, the animal identification of the sample, the type of sample, and the identifying number on the sample. You can also post results for each sample. There is no limit on the number of sample records that can be entered for each 10-4 record in the previous section. However, keep in mind that there is a limit to the number of records that can be entered on the paper form of the 10-4. If you enter more records than can be entered on a paper form, select a two-page form from the Reports Menu.

When finished entering sample information, press **F10** to return to the Electronic 10-4 screen.

Data Entry

Exercise 1 - Beginning data entry

Step 1 Change to the FEDS directory by typing **CD FEDS** at the drive prompt. Start the FEDS system by typing **FEDS** at the \>FEDS prompt.

Step 2 Go to the Setup Menu and select the **Initial Setup** option.

Step 3 Type in your name the way you would like it to appear on transmission files.

Step 4 Type in your investigator ID given by EP.

Step 5 Answer **Yes** if the information is correct.

Step 6 Go back to the Setup Menu and select the **Enter Investigator** option.

Step 7 Enter the appropriate code and fill in the rest of the information for yourself.

Step 8 Answer **Yes** to write to disk.

Step 9 Press **F10** to exit.

Step 10

Go to the Utilities Menu and select the **Customize Counties List** option.

Step 11

At the Pick screen, pick the state or states that you will be using routinely.

Exercise 2 - Data entry for investigations

Step 1

Go to the Databases Menu and select the **Enter Field Investigation** option.

Step 2

At FEDS screen, enter the Referral Control Number.

WARNING

Do not type over any existing control number.

Step 3

Press **Enter** to continue to the Premises Information screen.

Step 4

Enter the date the investigation was assigned in the format MM/DD/YY.

Step 5

Enter the time the investigation was assigned in military time.

Step 6

Press **F9** to access a list of Conditions Reported. Use the **Up** or **Down Arrow** keys to select the appropriate item.

Step 7

Type in Prem ID if known.

Step 8

Type the last name, first name, phone, address, and city of the premises investigated.

Step 9

Enter the county of the premises investigated. The county can be typed in or selected from the list accessed by pressing **F9**.

Step 10

Enter state, zip, and directions to premises.

Press **Enter** to move to the next field.

Step 11

Enter the longitude and latitude, if known. If you don't know the latitude or longitude, press **Enter** twice to move to the Type of Operation field.

Step 12

Press **F9** to access a list of Types of Operation. Select the appropriate Type of Operation.

Step 13

Put in the private veterinarian's name and phone number.

Step 14

Answer **Yes** or **No** when asked if the owner is different from the premises owner.

Step 15

Answer **Yes** when asked if you want to write data to disk.

Step 16

Press **F10** to move to the Call screen.

Step 17

Press **Enter** to move from the Premises Name field to the Investigation Type field.

Step 18

Enter **I** for initial or **F** for follow-up investigation.

Step 19

Enter the date and the time of the actual investigation.

Step 20

Type the FADD code entered at the initial setup. (Usually, it is the first name initial, the first two letters of the last name, and a 01, 02, ...)

Step 21 Enter the clinical history and epidemiology information.

> Note: Don’t put in clinical signs or lesions.

Step 22 Put in key words to summarize the history. Press **F9** to access a list that can be used for the first two key words. The last key word can be any entry you want.

Step 23 Enter your field evaluation to the most probable diagnoses on the first line of the Differential Diagnosis. The field evaluation indicates whether the animals are negative, suspect, or positive.

Step 24 Enter your differential diagnosis. Put the most probable diagnosis as the first line.

Step 25 Press **F9** to access a list codes. Enter the code for the lab that samples will be sent.

Step 26 Enter the type of samples sent to the lab (e.g., serum, tissues, whole blood).

Step 27 Enter **Yes** if you want to put in the dates that the rest of the information on the screen was entered.

Step 28 If you need to enter the dates, enter **Yes** and continue.

Step 29 Press **F10** to move to the susceptible Species screen.

Step 30 Press **Enter** to automatically fill in the investigation date field.

Step 31 Press **F9** to access the list of species. Highlight the appropriate species and press **Enter**.

Step 32 Enter the breed or age groups in the Description field.

Step 33 Enter the total population of the species or breed or age group.

Step 34 Enter the number of sick animals and the date the first animal was sick.

Step 35 Enter the number of dead animals and the date the first animal was found dead.

Step 36 Answer **Yes** when asked if you want to write to disk.

Step 37 Press **CTRL N** to add more species, breeds or age groups.

Step 38 After each group answer **Yes** when asked if you want to write to disk.

Step 39 When finished entering groups, Press **F10** to move to the Examination Results screen.

Step 40 Press **Enter** to automatically fill in the investigator name.

Step 41 Press **Enter** again to automatically fill in the investigation date.

Step 42 Enter the exam type. Press **F9** to access a list of options.

Step 43 Enter the species. Press **F9** to access a list of options.

Step 44 Enter the number of animals examined for this record.

Under description, please enter the same group description that you used in the Susceptible Species screen. If you are listing information on more than one animal, the ID will automatically be set to ‘‘Multiple’’.

Step 45 Press **F9** to access a list of systems that will describe either clinical signs or necropsy lesions. This description field is for the clinical signs or lesion for the system picked. You have two lines.

Continue through the number of systems as needed.

Step 46 Press **Enter** when the cursor comes to an empty line of the system field. The cursor will move to the open comment lines at the bottom of the screen.

Step 47 Answer **Yes** when asked if you want to write to disk.

Step 48 Press **CTRL N** for each other group of clinical/necropsy information needed.

Step 49 Press **F10** when finished with this section. The cursor will move to the 12_27B screen.

Step 50 Press **Enter** to automatically fill in the investigation date.

Step 51 Enter an identifying number for the associated premises. There is no mandated way to assign these numbers.

Press **F9** to access a list of the Type of Association (i.e., adjacent, multiple owners, etc.).

If movement (in or out) was selected as type of association, you will need to fill in the type of movement.

Step 52

Fill in the rest of the information for the associated premises as you did earlier for the premises under investigation.

Note: When this premises is investigated and given its own Referral Control Number, this should be entered as the Assigned RCNUM to tie the two records together.

Step 53

Answer **Yes** when asked if you want to write to disk.

Step 54

Press **CTRL N** to enter data for more associated premises as needed.

Step 55

Answer **Yes** to write to disk after each one.

Step 56

Press **F10** to go back to the beginning.

Step 57

Press **F10** again to exit back to the menu or press **CTRL N** to enter more investigations.

Exercise 3 - Entering 10-4 forms.

Step 1 From the Databases Menu select the **10-4/Lab Data** option.

Step 2 Enter the Referral Control Number for the sample submission.

Step 3 Enter the priority number given to you by the AVIC or task force director.

Step 4 Press **F9** to access a list of lab codes. Select the lab where the samples will be sent.

Step 5 Enter the FADD code. The rest of the FADD information will be automatically filled in.

Step 6 Enter the owner information.

Step 7 Press **Enter** to move the cursor past the miscellaneous field to the User Account Number field.

Step 8 Enter the user fee account number. (This number is not required for FAD submissions.)

Step 9 Press **F9** to access a list of county names. Select the appropriate county.

Step 10 Enter the state postal code.

Step 11 Enter the number of animals on the premises.

Step 12 Enter the number of animals affected on the premises.

Step 13 Enter the number of animals dead on the premises.

Step 14 Enter the date the samples were collected.

Step 15 Enter the name of the person who collected the samples or press **Enter** to automatically fill in the submittor's name.

Step 16 Enter the name of the person who authorized the submission. This is usually the AVIC.

Step 17 Enter the date the samples were sent to the lab.

Step 18 Enter the exams requested. Be brief!

Step 19 Press **F9** to access a list of the purpose of the submission. Select the appropriate purpose.

Step 20 Type in the country of origin/destination. This usually will be USA.

Step 21 Enter the specimens submitted. Press **F1** to see what codes should be used.

Step 22 Enter the type(s) of preservation (e.g., dry ice, wet ice, formalin, etc.).

Step 23 Enter the number of animals sampled.

Step 24 Enter the total number of specimens on this submission.

Step 25 Enter the number of boxes in this shipment.

Step 26 Enter in the clinical history for the laboratory.

Step 27 Enter the accession number if known. If unknown, press **Enter**.

Step 28 Enter the sample number on the associated tube or container.

Step 29 Enter the species for that sample number.

Step 30 Enter the ID or breed.

Step 31 Enter the age.

Step 32 Enter the sex.

Step 33 Press **CTRL N** to enter more samples.

Step 34 When you are done entering samples, press **F10** to return to the submission screen.

Step 35 Press **F10** to return to the FEDS Menu.

Managing Data

Exercise 1 - Viewing or editing records

Step 1

From the READI Menu, select the **Databases** option. From the Databases Menu, select the **View** option. All fields are available for editing and viewing except the referral control number.

Exercise 2 - Preparing for file transmission

Step 1

From the Utilities Menu select the **Prepare Transfer Files** option.

The computer will extract records from the Premises, Call, Species, Exam, 12_27B, Lab, and Labtest files for transmission to the national/central site.

The computer will place a compressed (zipped) file in the C:\FEDS\ZIP directory with the format of MDDFADD#.YYz.

Exercise 3 - Sending files through FTSMail or Groupwise

FTS Mail

Step 1 Log on to FTSMail.

Step 2 Type **UPLOAD** at the prompt.

Step 3 Type the address the file will be sent. For routine investigations type: **!a349vsepinv**

Step 4 Type the file name (e.g., 826RHO01.96z) when prompted for a subject.

Step 5 When it asks for the file to upload type **C:\FEDS\ZIP\MDDFADD#.YYz.**

Groupwise

Step 1 Open Groupwise and select the **Send Mail** option.

Step 2 With the cursor in the space used to designate the person to send mail to, select the **Address** option. Under users, type **disease** and press **Enter** twice.

Step 3 Select the **Attach** option. Select the **Attach File** option from the submenu that appears. Access the FEDS\ZIP directory and select the appropriate file. Click **OK**, click **Close** and then click on **Send**.

Exercise 4 - Receiving data

Data will arrive two different ways, electronically and manually. If data arrives electronically, it could either be in FEDS format or in some other format.

The FEDS format will look like MDDFADDx.YYz; where M = the month of the transfer (1-9, A, B, C); DD = day of the month of the transfer; FADDx = foreign animal disease diagnostician code; YY = year of the transmission; and z = just means that the file was zipped. Other electronic formats will vary as to their naming convention.

Manual format will be faxed in copies of investigator work sheets.

The DRO is responsible for receiving this data and getting it into the main data system. Data arriving in the manual and non-FEDS formats will have to be manually entered. The electronic FEDS format can be moved into main data system electronically.

FAD investigation reports will be sent via FTS Mail or Groupwise by the investigator or Area Office. At the FADD level, these reports will be in a zipped file in the C:\FEDS\ZIP directory. The files are produced by the FEDS Prepare Transfer Files utility. In FTS mail, the name of the document/file should be entered on the subject line. The name entered should be the same name as the zipped FEDS file. The format for the file name is MDDFADD#.YYz. At the DRO level, the FTS mail file will need to be downloaded into \ FEDS\FEDSRECV\ directory and given the name in the subject line of the message. For Groupwise, the file will be an attachment with the appropriate zipped file name. These attachments can be saved without changing the name in the \FEDS\FEDSRECV directory. The zipped file must be unzipped, reviewed and merged into the FAD master files by someone acting as the Disease Reporting Officer (DRO).

Subsequently, the new file must be checked and the status provided.

The following subdirectories must exist under the \FEDS directory.

- DRO1 and DRO2
- REVIEW
- FEDSRECV
- DROMSTR
- FEDSARCH

Preferably, Epi-Info should be run from DOS, but if it is run from Windows, use the full screen window and have little else running. From Windows, there should be two icons associated with the FEDS system, one for FEDS and the other for DRO. After a reviewer is notified that an investigation has been received, the reviewer double clicks on the DRO icon to enter into the DRO section of FEDS. From DOS, change to the \FEDS\REVIEW\ directory by typing **cd\feds\review**. Next, type **review**. A new menu screen will appear with a DRO submenu. Use the arrow keys to highlight the DRO submenu. Press the **Down Arrow** to access the pull down menu containing three options. The reviewer will select each option in order (i.e., 1 -> 2 -> 3->) to enter the new data into the main FEDS database.

At the DRO section of FEDS with the DRO submenu highlighted and pulled down, highlight the first option (1. Create list of recvd files) and press **Enter**. This is a very quick process and will take the reviewer back to the DRO pull down submenu. Select the second option (2. Concatenate recvd files) from this submenu. A screen will show where newly received files are located. The tab key allows you to "toggle" through the list to highlight choices. Press the space bar when a file is highlighted to mark that file. Up to five files may be selected. (Nothing will stop you from selecting more than five, but only five will be processed.) After marking files that have been received, toggle with the tab key to highlight **OK** and press **Enter**. After some processing, the program will access the Analysis section of Epi-Info where new data can be reviewed for completeness. Access files using the READ command. Review data using the the BROWSE command. Necessary changes should be made at this time using the UPDATE command. If, by chance, the Referral Control Number (RCNUM) has only two zeros, or is inaccurate for other reasons, you should correct the RCNUM now before merging and creating the Status record. First, close any record files (datasets) that are open by typing **close**. Next, type **run \feds\review\fixrcdro** at the Analysis prompt. Type in the inaccurate RCNUM, then the correct RCNUM when prompted. This process will make the needed corrections before merging with the master database. A printed copy can be made by exiting the Epi-Info Analysis section (press **F-10**), accessing the Reports pull down menu and selecting the **Print Investigation Report** option. The reviewer may try calling the investigator to clear up any questions. Changes can be made to a database file from Epi-Info. Once files are acceptable, press **F-10** to exit the Analysis section of Epi-Info and return to the DRO pull down submenu. Select the third option (3. MERGE recvd files w/ master). The reviewer will be prompted to enter the year, month and day (in the form of YYMMDD) and the number of times files have been merged that day, i.e., 01 for the first time that day. Press **F-10** to exit DRO and return to Windows. Double click on the FEDS icon. At the \FEDS prompt type **FEDS**.

In FEDS, use the arrow keys to highlight the **Databases** option. Use the **Down Arrow** to access the pull down menus. Highlight the **Status Summary** option and press **Enter**. The status screen has red, green and blue fields. RED colored fields must be completed by the reviewer. Green and Blue data fields can be entered by the reviewer, but this data comes from the field investigator and should be left alone. If changes need to be made in the Green and Blue fields, the data is best changed in the Premises or Call tables. Later, after running the FEDS **Update Status Utility**, the data will also be changed in the Status table. Each time an updated report is sent by the investigator or Area Office, the merging process will run the Update Status Utility and the Green and Blue information will be updated. Select the status record to be reviewed. New FAD investigations will need known information entered into the RED fields and old FAD investigations will need updating. Press **F-10** to exit.

Analysis of data can be performed using the Epi-Info pull down menu and selecting the appropriate *.rec files for analysis.

Exercise 5 - Messages

Required Field

This is a required field. Use the **Up Arrow** key to return to the previous field and enter this data. This information is critical in generating reports, or in the management of the task force. If you do not know this information at this time, supply it to the appropriate people as soon as possible. Press the **ESC** key to return to the screen.

Clear Screen

Call

Press the **CTRL N** to clear the screen before entering data on a new follow up investigation. Press **ESC** to return to the screen.

Follow up Status Screen

Your data has been saved. Press the **CTRL N** to clear the screen before entering the referral control number for your next follow up investigation. Press the **ESC** key to return to the screen.

Exercise 6 - Reports

Individual Investigations Report (Investigation Forms)

The purpose of this report is to print a copy of the FAD investigations. The reports can be printed or routed to a file. The report menu includes a selection which updates the investigations list after new investigations are entered. Run the update every time this report is printed or routed to a file, otherwise, new investigations may not be listed. The list of investigations shows the referral control number, date of investigation, and investigation type.

Administration Report (ADMIN)

The administration report is similar to the administration report used in the VS outbreak. It lists herd owner information, the classification of the case, serology, agent isolation, the current status, and some investigation data such as the investigation date, FADD, and the reason for the investigation. Reports can be retrieved by one state or for all states. There is also the option of retrieving all investigations, or only open investigations. This report must be routed to a file and formatted in a word processing program. This report requires that the Update Status Utility has been run.

Pending Report

The main purpose of the Pending report is to track the progress of herds or flocks which are being depopulated. This report requires that the Update Status Utility has been run**.** There are seven variations of this report. They include a pending report for appraisal, depopulation, cleaning, disinfection and quarantine release. There is a summary report which lists the dates these actions were completed. There is also a pending quarantine release report for outbreaks such as VS, where the quarantines are released after a defined period of time, but the herds are not depopulated. These reports can be run by state or for all states. They must be routed to a file and formatted in a word processing program.

Routine Report

The Routine report selects and tabulates the investigations for each region by state and condition code then by state and species. Each time you run the Routine report two tables are created for each region selected. This report takes information from the Premises and Species tables.

Ongoing Investigation Report

This report lists the investigation by two groups. The first list includes all the reports that have been initiated and pre-entered in the Status table, but no reports have been received from the field. The second list includes field reports, but no laboratory results have been entered into the status table.

Complete Investigation Report

This report lists all investigations that have laboratory results and have been closed out. It requires that information be entered into the Status table.

Epi-Curve

The Epi-Curve report will produce a histogram of a given disease condition for a given time frame. This report requires that the Update Status Utility has been run.

To run the Epi-Curve report:

Step 1

Select the **Epi-Curve** option from the Reports Menu. The program will ask you to fill in some parameters. The epi-curve program uses the species.rec and status.rec file. The dates used to calculate week (x-axis of curve) come from the variables DATESICK and vBEGDATE. DATESICK is the date animals were first reported sick. This variable is found in the species.rec file. The vBEGDATE variable is entered by the person running the report. The program will pick up the first date sick of a given premises (RCNUM).

Step 2

Choose one of the following from the Pick List.

- Screen
- Printer
- File
- Abort

Step 3

Enter the beginning date in which you want the Epi-curve to Start in the MM/DD/YY format.

Step 4

Enter the Disease Code.

Choose one of the following from the Pick List.

- All States
- Individual State

Step 5

If you pick Individual State, enter the state of interest.

Investigation Outcome Report

This report counts the number of premises that are pending, positive for a particular disease, had agent isolated, or are closed out. This report requires that the Update Status Utility has been run. The number of premises are tabulated by county and state or by county for a single state. An example of the report is included with this document. When this report is initiated, it will ask for a disease code then a state code. Disease codes can be found in Appendix D. Use the two letter postal codes for state codes.

Ad Hoc Reports

DRO's will be asked to provide reports not provided above. Call Gary, Mark, John, Charlie or Wayne if you need help.

Epi Map Modified Boundary Files

To produce maps ranging from multiple states to a single state showing county level detail, you will need to have a modified set of boundary files. Also, you will need develop procedures to put the data in the proper format. Give us a call.

Exercise 7 - Query Records

Step 1

Select the **Enter Field Investigation** option from the Database Menu.

Step 2

When the cursor is at the Referral Control Number field, press **CTRL F** and enter the Referral Control Number you want to query.

Step 3

Press **F3**

Step 4

Press **Enter** when the record is selected. The system returns to the previous FEDS screen.

Step 5

Press **Enter** twice to access the Premises Information form.

Step 6

Press **F10** to exit the Premises Information form. (It may be necessary to press **F10** several times to move the cursor back to the previous screen.) Press **CTRL F** to query another record or press **F10** again to return to the Database Menu.

FEDS Case Study

Hog Cholera READEO

You have been assigned to headquarters as DRO for a Hog Cholera READEO. There has been one confirmed case of Hog Cholera. Your duties include producing reports, supervising the merging of investigations sent in from the field, and updating status of the disease investigations.

July 7, 1996

Step 1

Enter the investigation report and lab results for the index case.

Run initial setup for your computer. From the Utilities Menu, select the **Prepare Files** option. From the submenu, select the **Setup** option. Your code will be the first initial of your first name, the first two initials of your last name and a two digit number (e.g., GST01 for Gary Stevens).

Enter the Investigator information for case 96NE0001C. From the Databases Menu, select the **Enter Investigator** option. You can enter your own information as the investigator.

Enter the initial investigation data (Attachment 1). Use your own code for the FADD.

Enter the 10-4 data (Attachment 2). Use your own code for the submitter information.

> Hint: Press **CTRL N** after entering information for each sample.

Enter the Lab Results (Attachment 3) Leave the 10-4 database and then go back into the 10-4 database. Be sure to enter the accession number in the last field of the 10-4 screen.

> Hint: Press **F8** to move from one sample to the next sample.

Print a copy of the investigation . From the Reports Menu, select the **Print Forms** option. From the submenu, select the **Print Investigation Form** option.

Print a copy of the 10-4 report. From the Reports Menu, select the **Print Forms** option. From the submenu, select the **Sample Submission** option and then the **1 Page 10-4** option.

Prepare the transfer file. From the Utilities Menu, select the **Prepare Files for Transfer** option. From the submenu, select the **Prepare Transfer Files** option.

Check the C:\FEDS\ZIP directory to see if the file has been transferred.

Step 2

Run the Generate Status Summary utility.

Step 3

Enter the disease under investigation and summary information for 96NE0001C in the Status Summary Database. There will already be a record for case 96NE0001C in this table. To find it, press F7.

- Serology: POS
- Isolation: POS
- Otherdiag: POS (Tonsil FATST)
- Case Evaluation: POS
- Status: POS

Step 4

Enter Information on new case assignments in the Status Summary database. Most of this information is transferred to this screen after the investigation files are imported from the field. (This occurred when you generated the Status Summary.) Information not transferred includes the disease under investigation, the lab summary information, case evaluation, and status. The information listed below should be entered to keep track of newly assigned cases. FADD's supply this information when they call in to get a referral control number. To clear the screen, press **CTRL N**.

RCNUM	Name	County	Field Dx	FADD
96NE0002C	Bob Roberts	Lancaster	POS	G E Stevens
96NE0003C	Henry Winters	Lancaster	NEG	P A Ward-Mossman
96NE0004C	John Jurgens	Lancaster	NEG	C W Kasselder

July 8, 1996

Step 1

Merge the Investigation files received from the field into the main database. See Attachment 4 for directions on merging.

Step 2

Run the Generate Status Summary utility.

Step 3

Enter information on new case assignments into the Status Summary Database.

RCNUM	Name	County	Field Dx	FADD
96NE0005C	Jerry Davis	Lancaster	NEG	G E Stevens
96NE0006C	Pat O'Donnell	Lancaster	SUS	P A Ward-Mossman

Step 4

Enter the lab result summaries into the status summary database. Tonsil biopsy results can be entered in the Other-diag field. You should complete the case evaluation and status fields if you have enough information to classify the case.

RCNUM	Name	Tonsil FATST	Serology	Isolation
96NE0002C	Bob Roberts	POS		
96NE0004C	John Jurgens	NEG		

July 9, 1996

Step 1

Merge the Investigation files received from the field into the main database. See Attachment 4 for directions on merging.

Step 2

Run the Generate Status Summary utility.

Step 3

Enter lab result summaries in the status summary database and enter any applicable case evaluation and status information.

RCNUM	Name	Tonsil FATST	Serology	Isolation
96NE0002C	Bob Roberts	POS		
96NE0003C	Henry Winters	NEG		
96NE0004C	John Jurgens	NEG		

July 10, 1996

Step 1

Enter lab result summaries into the status summary database and enter any applicable case evaluation and status information.

RCNUM	Name	Tonsil FATST	Serology	Isolation
96NE0005C	Jerry Davis	NEG		
96NE0006C	Pat O’Donnell	NEG		

July 11, 1996

Step 1

Enter lab result summaries in the status summary database and enter any applicable case evaluation and status information.

RCNUM	Name	Tonsil FATST	Serology	Isolation
96NE0002C	Bob Roberts	POS		

Step 2

Enter Information on new case assignments in the Status table.

RCNUM	Name	County	Field Dx	FADD
96NE0007C	John Cvsar	Lancaster	NEG	G E Stevens
96NE0008C	Levi Brown	Lancaster	SUS	P A Ward-Mossman
96NE0009C	Chris Reynolds	Lancaster	POS	C W Kasselder
96NE0010C	Joe Henson	Lancaster	POS	P A Ward-Mossman
96NE0011C	Marvin Bales	Lancaster	NEG	G E Stevens

July 12, 1996

Step 1

Merge the Investigation files received from the field into the main database. See Attachment 4 for directions on this merge.

Step 2

Edit the county for case 96NE0007C from Lancaster to Saline. This information is edited in the Imported Field files.

- Go into the Status Summary database.
- Press **CTRL F** or **F7** to find case 96NE0007C.
- Press **Alt F** and select the **Premises** section.
- Edit the county from Lancaster to Saline.

Edit the number depopulated and appraised for case 96NE0001C from 385 to 358.

- Go into the Status Summary database.
- Press **CTRL F** or **F7** to find case 96NE0001C.

- Press **Alt F** and select the Call section.
- Press **F8** to move to the record with depop/appraisal info.

The edits will appear in the Status Summary database when it is updated.

Step 3

Run the Generate Status Summary utility.

Step 4

Check the Status Summary database to see if your edits are reflected in the updated file. Why wasn't the appraisal and depop info updated ?

Step 5

Enter lab result summaries in the Status Summary database and enter any applicable case evaluation and status information.

RCNUM	Name	Tonsil FATST	Serology	Isolation
96NE0008C	Levi Brown	NEG		
96NE0009C	Chris Reynolds	POS		
96NE0010C	Joe Henson	POS		

July 13 & 15 1996

Step 1

Enter lab result summaries in the status summary database and enter any applicable case evaluation and status information.

Rcnum	Name	Tonsil Fatst	7/13/96 Serology	7/15/96 Isolation
96NE0007C	John Cvsar		NEG	NEG
96NE0008C	Levi Brown		NEG	
96NE0009C	Chris Reynolds		POS	POS
96NE0010C	Joe Henson		POS	POS
96NE0011C	Marvin Bales		NEG	NEG

Step 2

Run the following reports:

- Admin Report
- Epi Curve
- Investigation Outcome by County
- Pending Report Options 1 - 6
  - (Route all of these pending reports to the same default file.)
- Print a copy of the followup for case 96NE0001C done on July 8.