

U.S. Centers for Disease Control and Prevention National Center for Health Statistics International Statistics Program



Civil Registration Systems

These materials have been developed by the National Center for Health Statistics, International Statistics Program, Hyattsville, Md., as part of the CDC Global Program for Civil Registration and Vital Statistics Improvement.





- Characteristics
- Structure
- Process of Civil Registration
- Registered Records Processing





Characteristics of Civil Registration Systems

- Legal framework
- Full coverage of population
- Continuous and permanent
- Confidentiality of personal information

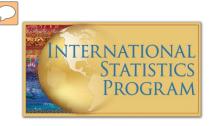


- Legal Framework
 - Primary objective of civil registration
 - Obtain legal documents required by law
 - Legal requirements of ideal civil registration system
 - Registration of all vital events
 - Identify agency authorized to register vital events
 - Specify time period for registration of records
 - Penalties for failure to comply with law
 - Compilation or publication of vital statistics

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Slide to give some specific legal requirements for the country in which the course is being taught or slides could contrast differences in countries if students are from different countries.



- Full Coverage of Population
 - Ideally should cover entire country
 - Not always possible due to economic or cultural conditions
 - May only cover certain states or provinces
 - May not include all types of vital events
 - Priority to births and deaths



Slide with coverage information for the country where course is being taught or contrast differences in countries.



Continuous and Permanent

- Vital records
 - New records continually added
 - Must be preserved
 - Available when needed

SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 1 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.

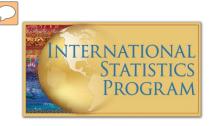
Picture from WHO web site.



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- Confidentiality of Personal Information
 - Some details on individuals may be very personal
 - Individual information
 - Ideally should be confidential
 - May improve reporting
 - May improve accuracy
 - No restrictions in some countries
 - Vital records open to public inspection



Slide with information on legal requirements on confidentiality for the country where the course is being taught or contrast differences in countries.



Discuss

How might confidentiality be breached or cause problems with reporting?

What are some advantages and/or disadvantages to some of the legal requirements related to confidentiality in your country?





Civil Registration

- Based on system of laws
- Primary objective to obtain legal documents required by law
- Should cover entire population of country
- Records should be registered as vital events occur
- Ideally, personal information on vital records should be kept confidential



Activity

In small groups, examine the civil registration laws for your country and compare those requirements with the ideal requirements for civil registration. In particular, does the law specify the following:

- What documents must be registered?
- An agency/organization designated to register vital events?
- A time period for registration?
- Penalties for not complying with the law?
- Requirements for publishing vital statistics?
- Registration requirements that apply to the entire country?

If the laws do not meet the ideal requirements for civil registration, what changes could be made in the existing laws to get closer to the ideal requirements for civil registration?



Structure of Civil Registration Systems

- Legal Basis
- Centralized/Decentralized
- Single/Multiple Administrative Agency(ies)
- Advantages/Disadvantages
- Differences Between Countries

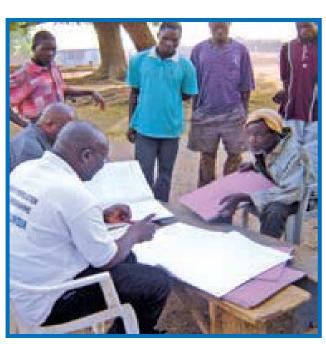




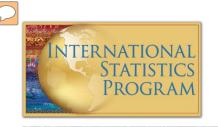
Legal Basis

- Authority for civil registration system
 - Agency specified in law
 - Registrar General or **Director General**
 - Provides oversight of civil registration system
- Types of vital records

SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Modules 3 and 4, and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III. Picture from WHO web site.



Community volunteer gathering information in the Northern Region of Ghana. Kingsley Asare Addo/BDR.



- Legal Basis (continued)
 - Method for funding
 - Requirements for release of vital records
 - Provision for vital statistics system
 - Vital events registered at local office or registration unit



- Legal Basis (continued)
 - Local Registrar administers local office
 - Ensures compliance with civil registration law
 - Records information for vital events
 - Ensures records are accurate and complete
 - Informs public of procedures for registering records
 - Completes statistical reports
 - Preserves and stores vital records locally
 - Issues certified copies of vital records



Centralized

 Responsibility for civil registration at national government level

Decentralized

 Responsibility for civil registration at state or provincial level



Single Agency

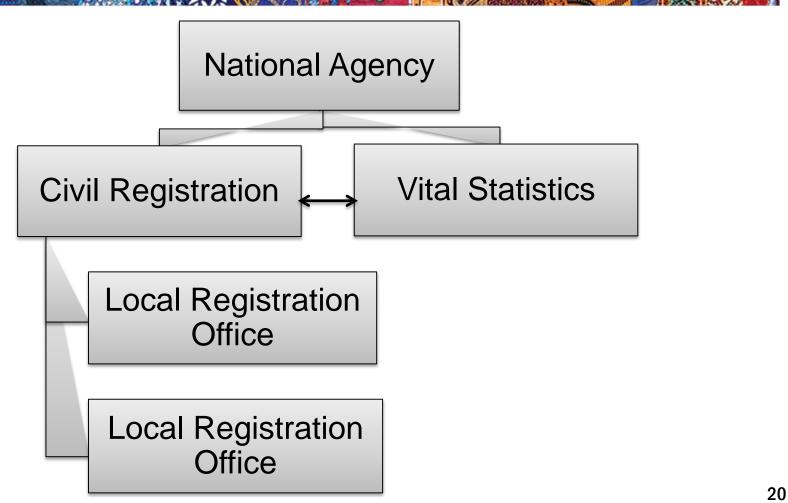
 Responsibility for civil registration and vital statistics functions in one agency

Multiple Agency

 Responsibility for civil registration and vital statistics functions in different agencies

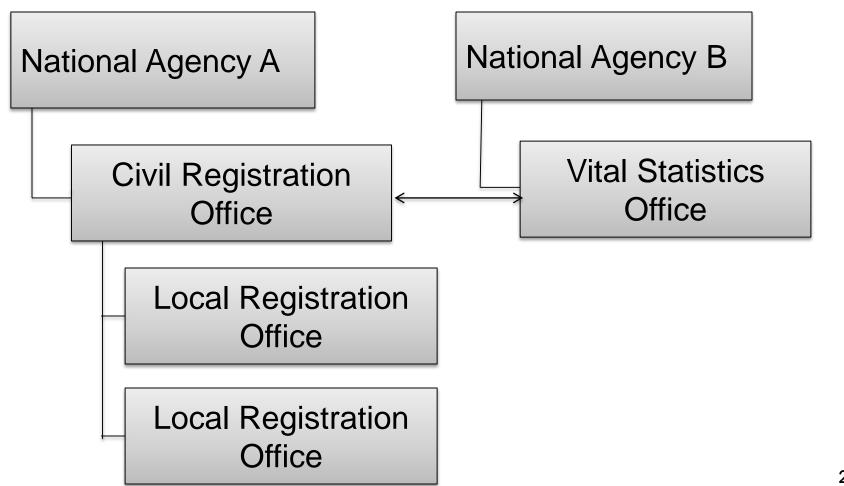


Centralized National Level Single Agency





Centralized National Level Multiple Agency

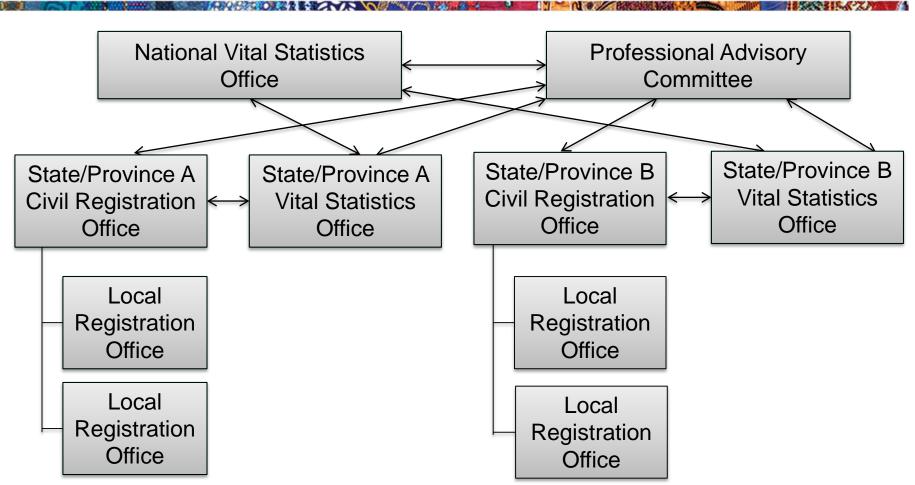


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SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 3 and Annex I. C.



Decentralized Multiple Agency Example





Structure: Advantages & Disadvantages

Revision 2, United Nations, New York, 2001, Chapter III.

System	Advantages	Disadvantages
Centralized System	 One central authority manages entire system Consistent laws and regulations Same forms and procedures throughout country Consistent training and technical assistance at local levels Uniform archival practices for maintaining vital records 	More difficult to add data items for unique health problems in local areas
Decentralized System	 Better in countries with large land areas or large populations Individuals obtain copy of record from area where event registered Easier to include data items relevant to area 	 Different laws, registration processes, data collection forms, and/or data items Compilation of national statistics more difficult SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 3 and Principles and Recommendations for a Vital Statistics System,



Differences Between Countries

- Centralized Systems
 - Costa Rica
 - Thailand
- Decentralized Systems
 - Canada
 - Argentina
 - Mexico
 - United States



Slide with diagram of civil registration structure in country where course is being taught.

Diagram should give the specific names of the agencies where civil registration and vital statistics functions are located.

Additional slides could be added if students are from different countries or just to point out contrasts between countries.



Discuss

When civil registration and vital statistics are in different agencies, it is important that coordination exist between those agencies. What are some areas for coordination between those agencies?

What are some methods that can be used to promote coordination between agencies and between national and local government units that have responsibility for civil registration and vital statistics?





- Law specifies structure of civil registration system
 - Agency with authority for civil registration
 - Registrar General to oversee system
 - Vital registration takes place at a local office under Local Registrar



Civil Registration System

- Centralized or decentralized
- Single agency or multiple agencies
- All combinations of these structures used in different countries



Process of Civil Registration

- Place of registration
- Time to register vital event
- Person responsible for registering event
- Documentation to support registration
- Format for registration of vital events
- Storage
- Issuance of copies



Process

Place of Registration

- Vital events registered
 - In local area
 - By place of occurrence
 - Geographic location where vital event occurred
 - Or by place of residence
 - Usual residence of person involved in vital event

Birth – residence of mother

Fetal death – residence of mother

Death – residence of decedent

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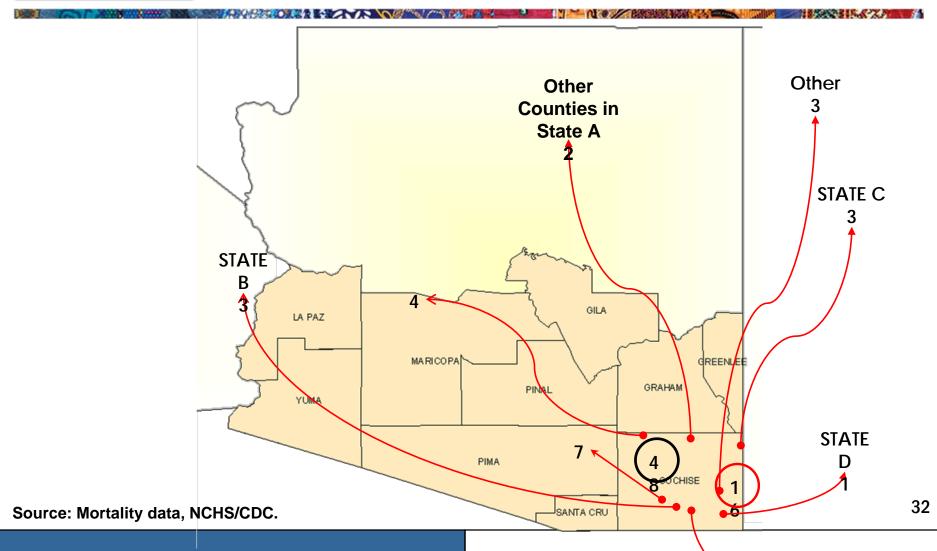


Process

- Place of Registration (continued)
 - Statistical tabulation
 - Collect both occurrence and residence data
 - Tabulate data according to research needs
 - Civil registration law
 - Specify where vital event should be registered
 - Specify how to handle problem events



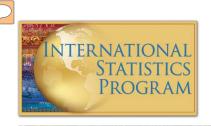
48 motor vehicle crash deaths in Cochise County, State A





Process

Slide with place of registration requirements for country where course is being taught or comparison if students are from multiple countries.





What are some advantages and disadvantages of registering and tabulating vital events by place of occurrence or place of residence?



Process

- Time to Register Vital Event
 - Law should specify time period to report vital event to local registrar
 - Time should be short but reasonable
 - Common time periods
 - Births One month
 - Death Five days
 - Fetal deaths
 Five days



Process

- Time to Register Event (continued)
 - Delayed or late registrations
 - Vital events registered after required time period
 - Additional requirements or documentary proof may be needed to register event
 - May not be included in vital statistics data if registered more than a year after event occurred
 - Number of late or delayed registrations should be limited
 - Use of educational programs
 - Improve efficiency of vital event registration

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Slide with time requirements for registering vital events for the country where the course is being taught or comparison if students are from multiple countries.





What are some of the problems that might delay registering of vital events?

What are some ways to prevent these problems?



- Person Responsible for Registering Vital Event
 - Informant
 - Person stating that vital event occurred
 - Civil registration law should specify for each vital event
 - May be different for vital events inside or outside of medical facilities
 - Alternates if preferred not available



- Person Responsible for Registering Vital Event (continued)
 - Informant (continued)

Someone who knows parties involved and/or

characteristics of the event

 May have to provide oral or written declaration of circumstances of vital event



WHO/Evelyn Hockstein

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SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 7 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.



Suggested Informants for Vital Events

Vital Event	Occurs in Medical Facility	Occurs Outside of Medical Facility
Birth	 Head of medical facility Other person representing medical facility 	 Mother Father Attendant at delivery Nearest relative of mother Other adult person who knows facts of birth
Death	 Head of medical facility Other person representing medical facility 	 Surviving spouse of decedent Mother/father of decedent (particularly for child or infant) Other relative of decedent Other adult person who knows facts of death

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- Person Responsible for Registering Vital Event (continued)
 - Others having responsibility for vital events
 - Funeral director
 - Collects information from informant and registers death
 - Medical certifier for death
 - Provides cause of death information
 - Part of registration of death or supplemental statistical item

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- Person Responsible for Registering Vital Event (continued)
 - Others having responsibility for vital events (continued)
 - Medical attendant at birth
 - Provides supplementary medical information
 - Part of registration of birth or supplemental statistical item



Slide with required informant for registering vital event for the country where the course is being taught or comparison if students are from different countries.



Documentation to Support Registration

- May be required to prevent fraudulent registration of vital events
- Minimal requirements for timely registration
- Late or delayed registration
 - Usually after one year
 - May require multiple documents



- Documentation to Support Registration (continued)
 - Types of documents required
 - Statement from medical attendant
 - Witness statements
 - Legal documents
 - Baptismal certificate
 - Vaccination or other health records



Slide showing documentation requirements for country where course is being taught or comparison if students are from different countries.



Format for Registration of Vital Events

- Various formats
- Depends on development of the country
- Educational and technical level of employees
- Resources available
- Different formats for registration of different types of vital events
- May change over time



Examples of Formats

Book Register	 Bound book of preprinted forms with entry by hand Events entered as they are registered Usually just legal information Separate registers for each vital event 	
Card Register	 Preprinted card with entry by hand or typewriter Cards can be sorted by date or surname for storage Late or delayed events can be added Cards can be lost of misfiled 	
Paper Record	 Preprinted form on paper with entry by hand or typewriter Statistical information may be collected with legal information Records can easily be photocopied Records can be lost or misfiled 	
Electronic Record	 Preparation of record on computer Statistical information may be collected with legal information Electronic storage Information easily sorted and tabulated High cost of equipment and software Need qualified technical staff 	

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- Format for Registration of Vital Events (continued)
 - Combinations of all formats
 - Used in some countries
 - Harder to store, preserve and issue certified copies

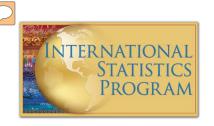
SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 9 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.



In Freetown, registered deaths are archived without being entered into a database and analyzed. PHOTO: WHO/David Lubinski Picture from WHO web site

Civil Registration Systems

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- Format for Registration of Vital Events (continued)
 - Electronic records
 - Just coming into use
 - Local paper records converted to electronic format at national or regional office
 - Older formats converted to electronic format





Format for Registration of Vital Events

(continued)

- Electronic records (continued)
 - Ideally collect information directly from source
 - Medical facility where birth occurs
 - Funeral director who handles disposition

SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 9 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.



Devices such as smart phones can 52 provide real-time data access from ___ remote areas. Picture from WHO web site.



Slide with type of format for collection of vital event information in country where course is being taught or comparison if students are from different countries.



Storage

- Official government documents with legal value
 - Secure
 - Permanent
 - Protected from catastrophic events such as fires, floods or other weather related issues



Picture from WHO web site

- Vault with fire protection features
- Backup methods to preserve records
- Records can be stored both centrally and locally



Examples of Storage & Backup Methods

Format	Storage Methods	Backup Methods
Book Register	Stored on shelves	Difficult to backupInformation copied into other books or other formats
Card Register	File drawers	Information copied to other cardsMicrofilm
Paper Record	Bound volumes Loose leaf binders Stored on shelves	MicrofilmElectronic images
Electronic Record	Electronic format	Electronic copiesCopies should be stored offsiteMust migrate to new systems with changing technology

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Civil Registration Systems

SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 9 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.



Slide with type of storage used for vital events in country where course is being taught or comparison if students are from different countries.



Issuance of Copies

- Key function of civil registration
- How copies are issued
 - Specified in civil registration law
 - Full copy of original vital record or excerpt of record
 - Handwritten, photocopied, or computer generated
 - On safety paper to prevent fraud
 - With certification and/or seal of Registrar General or local registrar who issued copy

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- Issuance of Copies (continued)
 - Who may obtain copies of records
 - Most countries restrict issuance
 - Usually strictest requirements on birth records
 - Where copies are issued
 - National level
 - Local level
 - Both



- Issuance of Copies (continued)
 - Ways to obtain copies of vital records
 - In person
 - By mail
 - By telephone
 - Over the Internet



Slide with brief description on issuance of certified copies for country where course is being taught or comparison if students are from different countries.

Examples of certified copies of records from the country where the course is taught may also be shown.



Discuss

What are some of the ways that birth and death records might be used for fraudulent purposes, especially if release of those records is not restricted or if security measures are not used on certified copies?



Review

- Vital events usually registered at local units
- Vital event registered
 - By place of occurrence or by place of residence
 - Both should be collected for statistical tabulation
- Time to register vital event
 - Should be reasonable
 - Late or delayed records
 - May not be in annual statistical tabulations
 - May require documentation for registration



Review

Informant

- Person responsible for registering vital event
- Should be designated in civil registration law
- Formats for registration
 - Book or card registers
 - Paper records
 - Electronic records





- Vital records must
 - Be preserved
 - Be stored in secure manner
 - Have backup copies available
- Issuance of certified copies of vital records is a key function of civil registration
- Most countries
 - Restrict who may obtain certified copies
 - Take precautions to prevent use of vital records for fraudulent purposes



Registered Records Processing

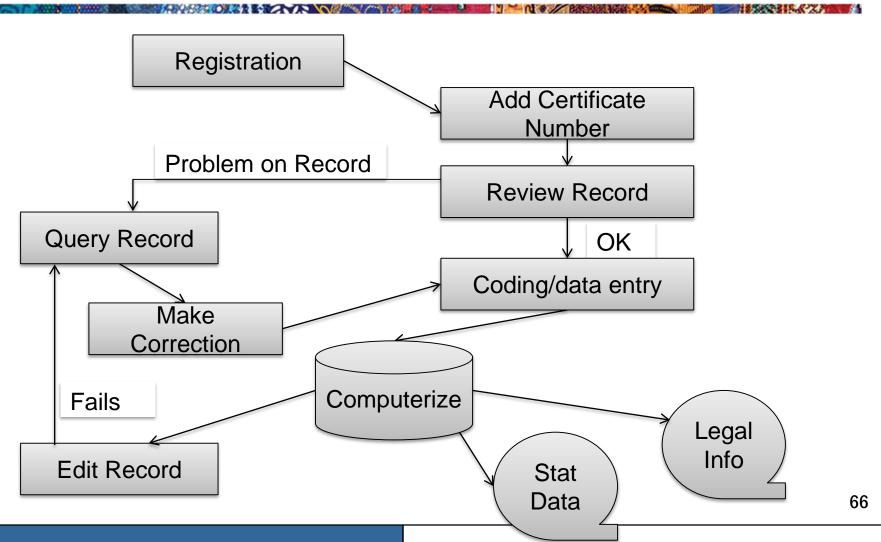
- Numbering
- Coding Data
- Computerizing
- Editing
- Querying
- Correcting Errors



Picture from WHO web site: Health Metrics Network

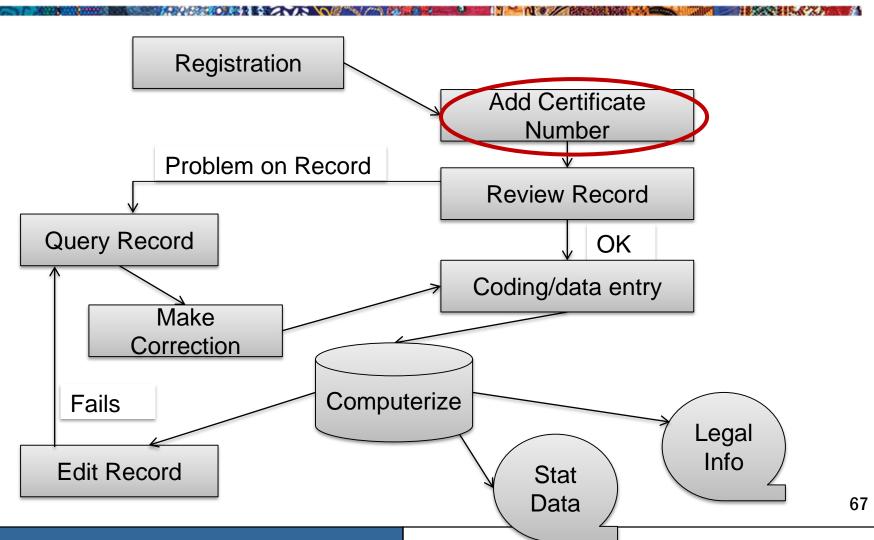


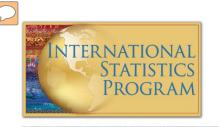
Basic Record Flow





Basic Record Flow





Registered Records

Numbering

- Unique number for each type of vital record
 - Assigned at local or national registration office
 - Specific criteria so numbers not duplicated
- Some countries use personal identification number from population registry on vital records

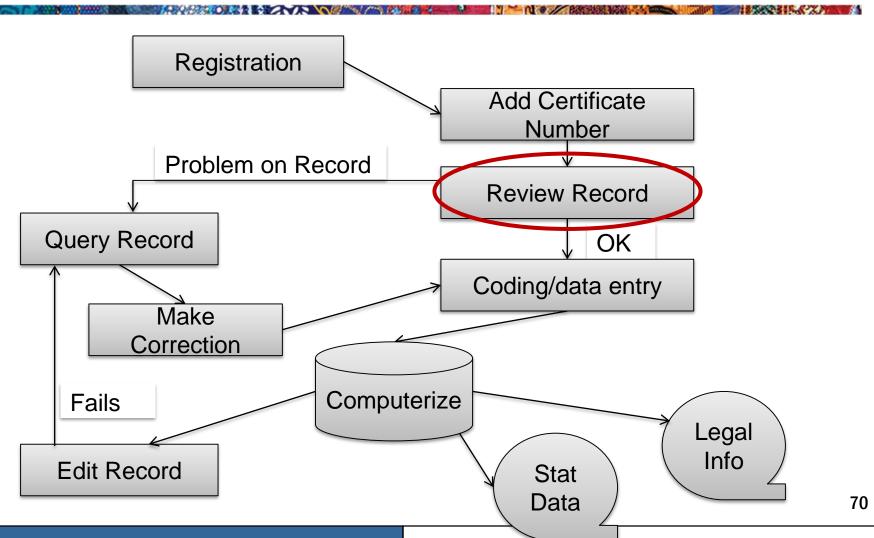


Registered Records

- Numbering (continued)
 - Common methods for assigning numbers
 - Year of event followed by sequential number for each type of vital record in calendar year
 2011-000001
 - Date of event followed by sequential number
 - 19910810-0001 for 10 August 1991

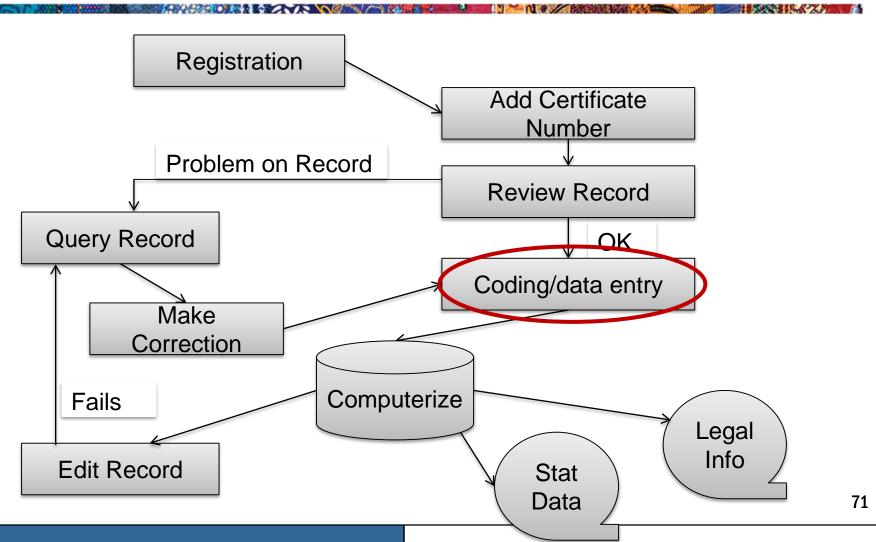


Basic Record Flow





Basic Record Flow





Registered Records

Coding Data

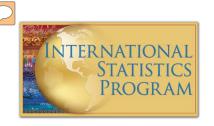
- Some items on vital records are "coded"
 - Changed to numerical format for computer entry and data tabulation
 - Examples of coded items
 - Sex
 - Geographic location
 - Marital status
 - Education level
 - Cause of death
 - Occupation

SOURCES: Handbook on Training in Civil Registration and Vital Statistics Systems, Series F, No. 84, United Nations, New York, 2002, Module 13 and Principles and Recommendations for a Vital Statistics System, Revision 2, United Nations, New York, 2001, Chapter III.



Picture from WHO web site.

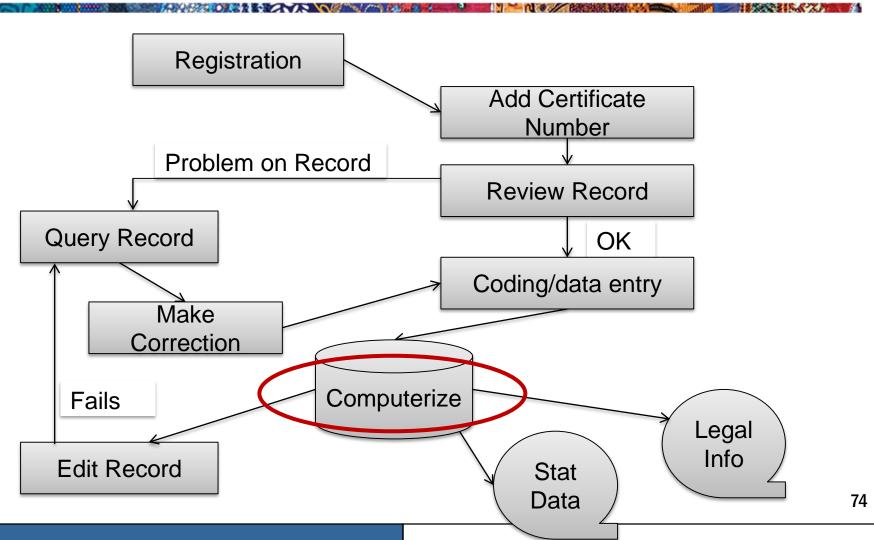
In Santiago, Chile, Alejandra Landabur enters information from death certificates into a database. Photo: WHO/Aliosha Marquez



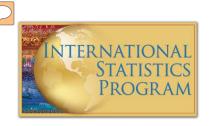
- Coding Data (continued)
 - Coding standards
 - Follow international statistical classifications for data comparisons
 - Allow for comparison of items over time
 - Simple for items with limited number of entries
 - Strict rules for items with many possible entries
 - Verification of coding
 - Coders must be well trained to prevent errors



Basic Record Flow



Civil Registration Systems



Computerizing

- Method depends on technology available
 - Paper records forwarded to national office for data entry
 - Data entry at a local level and electronic information forwarded
- Ideal system
 - Informant responsible for entering information into electronic vital record
 - Or entered by someone obtaining information from informant



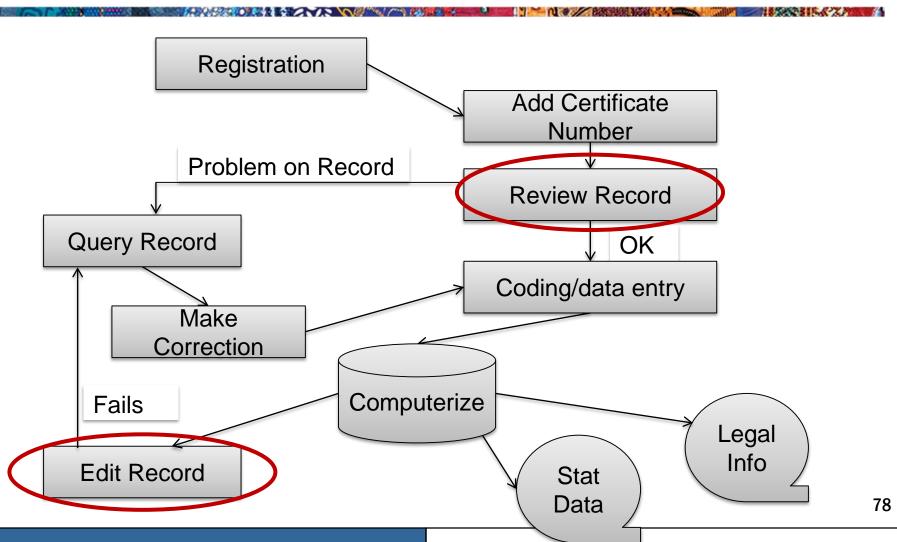
- Computerizing (continued)
 - Usually done by civil registration authority
 - Vital statistics data should be collected during civil registration process
 - Statistical files passed to vital statistics agency
 - Need agreements to protect individually identifiable information
 - Computerization process
 - Include ways to prevent inadvertent keying errors
 - Capture both legal and statistical information in computer entry programs



Slide with information status of computerization in country where course is being taught. Include how records are numbered and coded. Or, if students are from different countries, show a comparison of countries.



Basic Record Flow



Civil Registration Systems



Editing

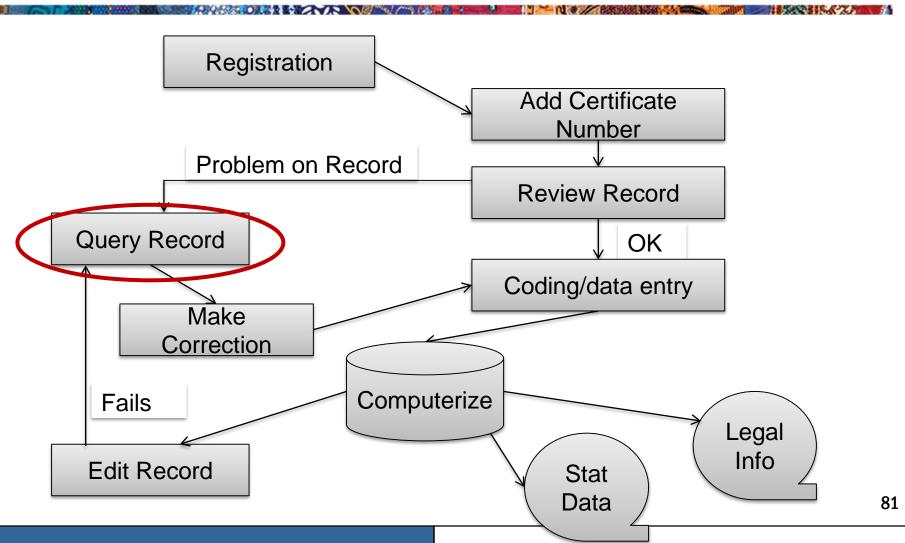
- Early in registration process
 - Paper records
 - Reviewed when received
 - Preferably in local registration area
 - Find obvious errors and missing information
 - Electronic records
 - Include edits in source programs
 - » Prevent entry errors
 - » Disallow missing information



- Editing (continued)
 - Records in electronic format
 - Check electronically for inconsistent, inappropriate or unusual entries
 - Mark records for review if entry outside standard range
 - Check for errors during electronic conversion of paper records
 - Statistical agency should also check data for inconsistent or unusual trends



Basic Record Flow



Civil Registration Systems



Querying

- Follow-up of problems
 - Missing, inconsistent or inappropriate entries
 - Contact person responsible for providing information
 - Query as soon as questionable or missing entry found
 - Needed for high quality statistical data
- Often done by local registration office
 - National office sends queries to local office
 - Corrected or missing information sent back to national office



Slide with information on editing and querying vital records in country where course is being taught or comparison if students are from different countries.

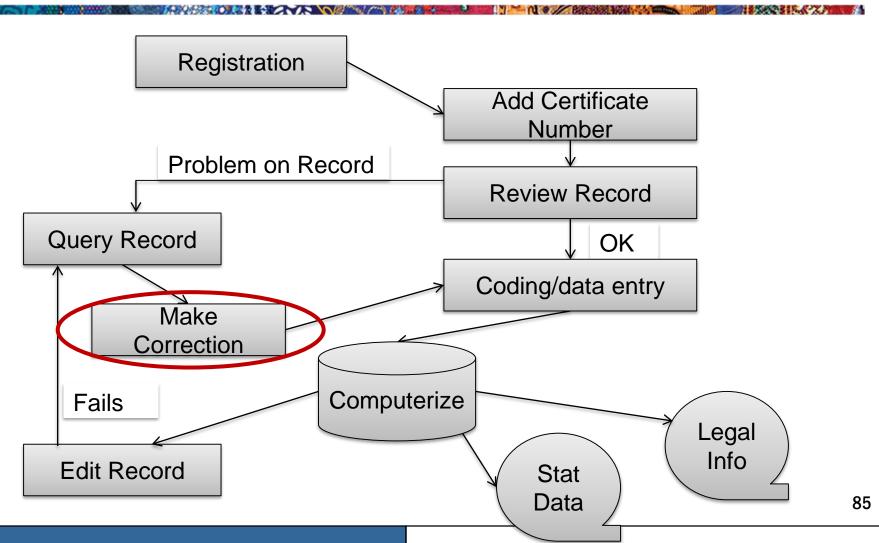


Discuss

In what ways can computerization of vital records be expanded in your country? What benefits might be gained? What problems or issues might be incurred with an expansion of computerization?



Basic Record Flow



Civil Registration Systems



Correcting Errors

- For both legal and statistical items
- Method depends on type of error and data item
- Duplicate records at both national and local level must be corrected
- Correcting legal items (Amendments)
 - Method should be specified in civil registration law
 - "Evidence" or documentation usually required to support correction
 - Obvious clerical errors generally require little evidence
 - Some corrections may require court action



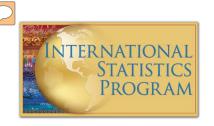
Correcting Errors (continued)

- Time for correction of error
 - Legal items
 - Can be made at any time
 - Often errors not found until copy of record is issued
 - Corrections may not be included on statistical file
 - Statistical items
 - As soon as possible after error is found
 - Prior to preparation of annual tabulations

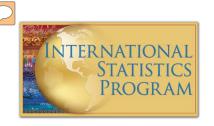


Methods for Correcting Errors

Type of Error	Method Used to Correct
Item Left Blank	Correct information inserted into blank spaceNotation may be added to record to note addition
Minor Clerical Error	 May be lined through with correct information written above on paper record New record may be prepared with correct information Notation may be added to record to note correction
Wrong Information Entered on Paper Record	 May be lined through with correct information written above on paper record Affidavit with correct information may be attached to original record Notation usually added to record to note correction
Wrong Information Entered on Electronic Record	 New record may be prepared with correct information Statement may be added to indicate what was originally entered on record Notation usually added to record to note correction



- Correcting Errors (continued)
 - Countries may use several methods
 - Depends on age of the record
 - Depends on item to be corrected
 - Certified copies of record should include
 - Corrected information
 - Notations added to the record



- Correcting Errors (continued)
 - Birth records also can be changed based on civil registration law
 - Adoption
 - Legitimation
 - Recognition
 - Paternity determination



Slide with information on correction of records in country where course is being taught or comparison if students are from different countries.



Discuss

What type of documentation or evidence is needed to:

- Correct the spelling of a name on a birth or death record?
- Change the name on a birth record?
- Add a father to a birth record?
- Change the age of the mother or father on a birth record?
- Change the age on a death record?
- Change the cause of death on a death record?



Slide with flow chart for processing records in country where course is being taught or slides with information on some of the processes.

If students are from multiple countries, maybe contrast some differences in ways records are processed in those countries.





Civil registration process

- Record given unique number
- Items coded for data entry and statistical tabulation
 - Codes should follow international statistical standards
- Computerization may be done in various ways
 - Ideal system has informant entering information into software





Civil registration process (continued)

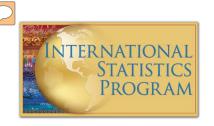
- Editing
 - Detect errors, missing values, and inconsistent, inappropriate or unusual entries
 - Early in registration process
 - Ideally in source programs for electronic records
- Querying problems on records
 - Contact person responsible for providing information
 - May be done at local registration office





Civil registration process (continued)

- Correction of errors
 - Errors in both legal and statistical items should be corrected
 - Methods for correction vary depending on item to be corrected and length of time after the event
 - Documentation or evidence required for some corrections



Activity

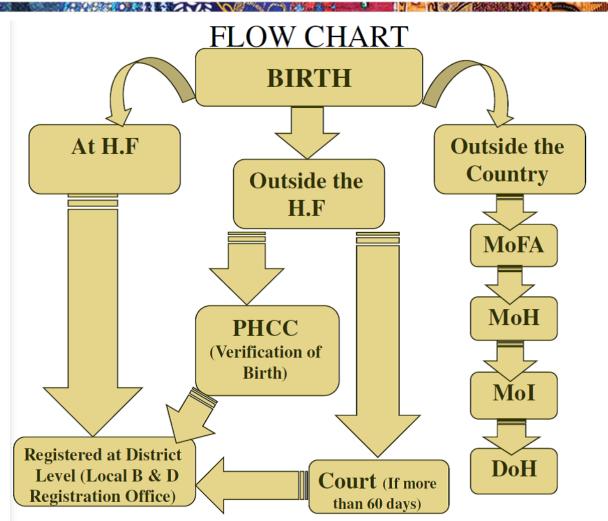
In small groups draft a detailed flow chart for registration and processing of a birth (or death) record in your country.

- Draft the flow from the time the record is created until a data file is produced.
- Show how a birth (or death) record is registered and handled locally, forwarded to the central office (if that is the case), and the steps for processing the record at the central office.

Compare charts. Identify and discuss organizational aspects of the system that need improvement.

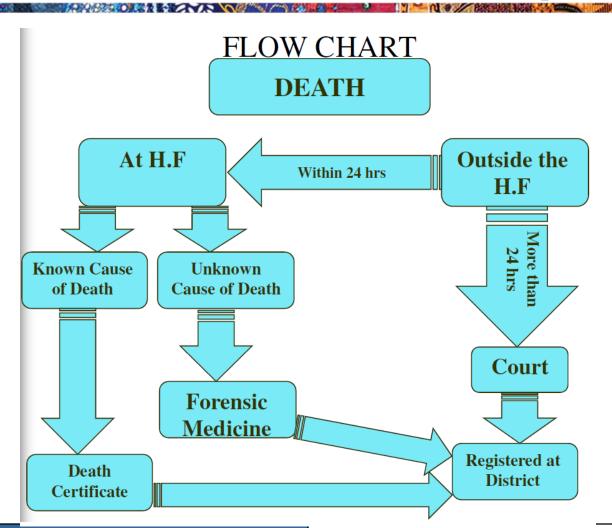


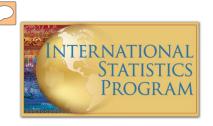
Flowchart Example - Iraq





Flowchart Example - Iraq





- Primary objective of a civil registration system is to obtain (census data/legal documents) as required by law.
- 2. Ideally, the civil registration system should cover (large population centers/the entire country).
- 3. Vital records (may/may not) be destroyed after data are tabulated.
- 4. Ideally, information from vital records should be (available to anyone/confidential).
- 5. The structure of a civil registration system is specified by (law/the Registrar General).



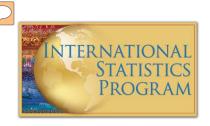
- 6. Actual registration of vital events generally takes place at the (national/local) level.
- 7. The structure of civil registration systems is (the same/different) from country to country.
- 8. When responsibility for civil registration is at the local level the system is (centralized/decentralized) while when responsibility is at the national level the system is (centralized/decentralized).
- 9. In [country where course is being taught] civil registration and vital statistics functions are in (the same/multiple) agency(ies).



- 10. (Either/both) place of occurrence (or/and) place of residence should be collected for statistical purposes.
- 11. The time required for registration of vital events (should/should not) be specified in civil registration law.
- 12. Annual statistical tabulations (may/may not) include vital events that are registered late.
- 13. Civil registration law (should/should not) designate the person responsible for registering each type of vital event.



- 14. Vital records must be (securely preserved/discarded after use).
- 15. A key function of civil registration is issuing (lists/certified copies) of vital records.
- 16. Most countries (have/do not have) restrictions on who may obtain certified copies of vital records.
- 17. Vital records registered in the civil registration process should have (duplicate/unique) numbers.



- 18. Items on vital records coded for statistical tabulation should follow (*local/international*) statistical standards.
- 19. Ideally, detection of errors, inappropriate entries, or missing values on vital records should be done (at the end of/early in) the registration process.
- 20. Querying problems on birth or death records involves contacting the (informant/local registrar) to obtain the correct information.



- 21. Errors in (statistical/legal/both statistical and legal) items on vital records should be corrected.
- 22. The method used for correction of errors on vital records may vary depending on the (informant who provided the information/item to be corrected), the type of error made and the length of time after the event occurred.