Outcome Measures

Determining if Your Program Has Made a Difference

Objectives

At the end of this presentation, participants will be able to:

1. Understand the difference between process & outcome evaluation

2. Describe SMART objectives

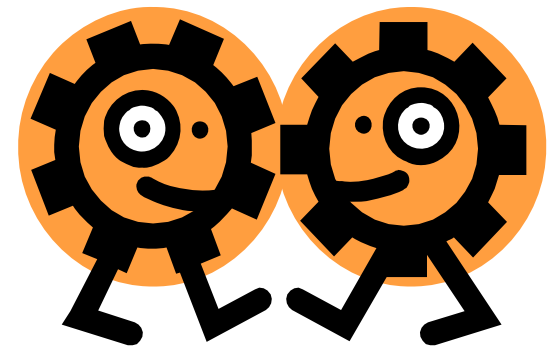3. Understand how to detect & show changes in outcome measures

This presentation…

- <u>Will</u> explain what evaluation is, common terminology used, resources available
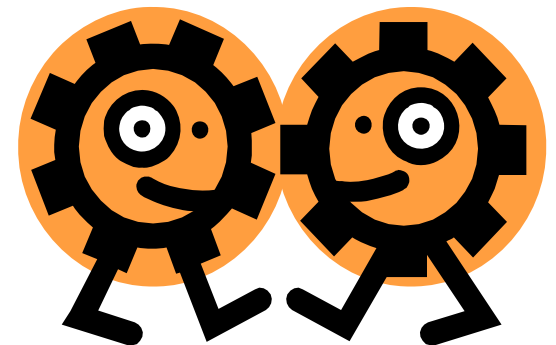- <u>Will not</u> provide step-by-step instructions for evaluation process
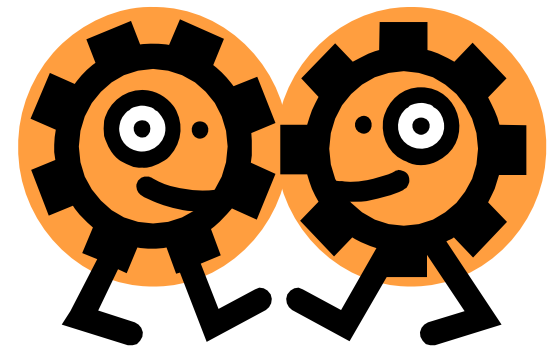
Discussion

What is evaluation?

What is evaluation?

The process of examining a system or system component to determine the extent to which specified properties are present
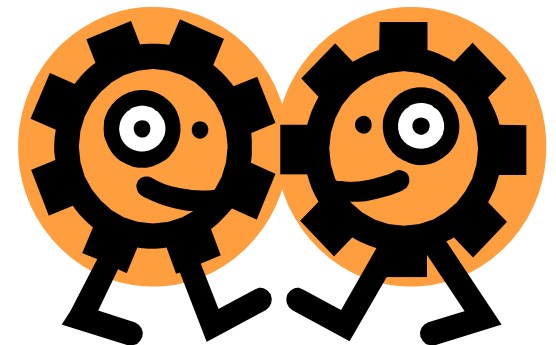
Discussion

Why should evaluation be done?

Why Evaluate?

- Because funding agencies require it!
- Determine if your program is making a difference
- Program improvement
- Best use of resources

Discussion

What do you want to know about one of your programs?

Barriers & Myths

- Evaluation is a complex science. I don't have time to learn it!

- It's an event to get over with and then move on

- Evaluation is a whole new set of activities— we don't have the resources

- There is a "right" way to do outcomes evaluation. What if I don't get it right?

Barriers & Myths, cont.

- Funders will accept or reject my outcomes plan
- I always know what my clients need, I don't need to evaluate
- Evaluation diverts resources away from the program
- Evaluation increases the burden for program staff
- Evaluation may produce negative results and make my program look bad

Steps in Conducting Evaluation

Step 1: Assemble a team

- **Planning & executing evaluation should be team effort**
    - Even with external evaluator, internal staff should be involved
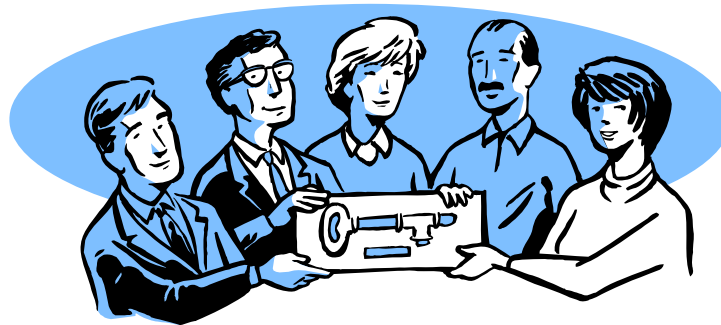
Step 2: Prepare for Evaluation

- Decide what to evaluate
- Develop a program model (logic model)
- State objectives in measurable terms
- Identify the context for evaluation

Step 3: Develop a Plan

- Plan is a blueprint for evaluation
- Identify data sources
- Describes the methods used to evaluate
- Explains the methods used to analyze data

Step 4: Collect Information

- Select collection procedures/instruments
- Develop collection procedures/instruments
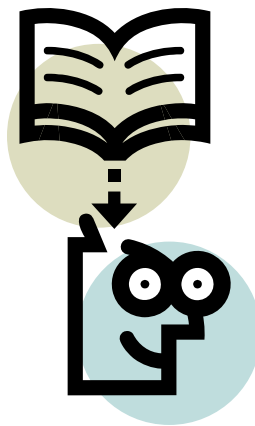
Step 5: Analyze Information

- Organize data
- Consider analysis throughout data collection

Step 6: Prepare Report

- Comprehensive document that describes
  - Program
  - Results of evaluation
  - Interpretation of results

Program Logic Model

Discussion

What is a logic model?

Discussion

A logic model displays the sequence of actions that describe what the program is and will do – how investments link to results

Logic Model Diagram

Program Action - Logic Model

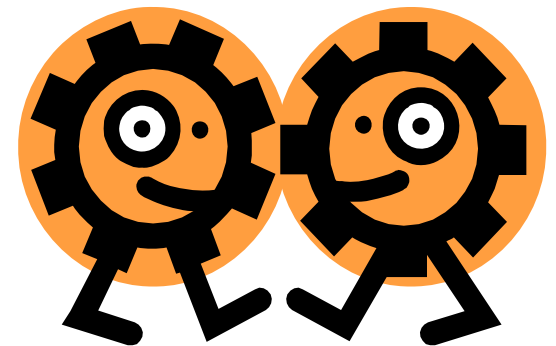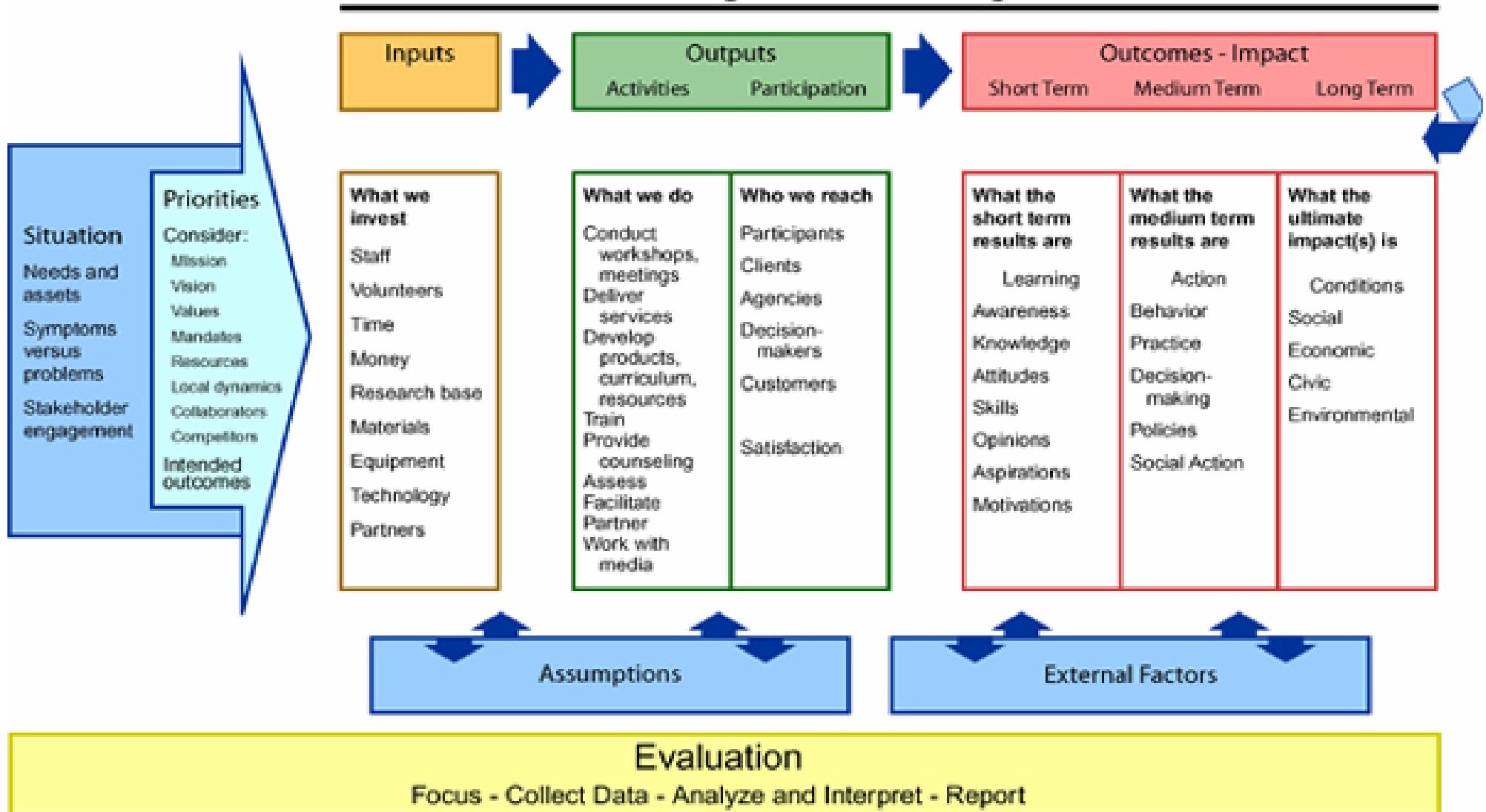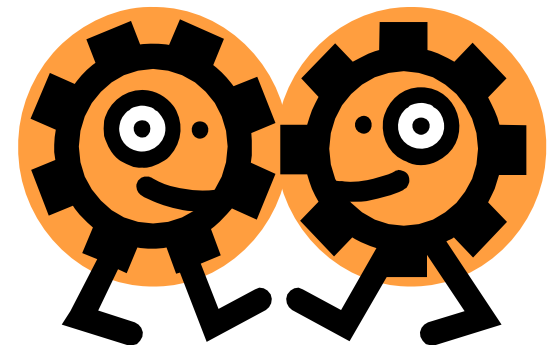| Inputs		Outputs		Outcomes - Impact	
		Activities	Participation	Short Term	Medium Term	Long Term

Situation

Needs and assets

Symptoms versus problems

Stakeholder engagement

Priorities

Consider:
- Mission
- Vision
- Values
- Mandates
- Resources
- Local dynamics
- Collaborators
- Competitors

Intended outcomes

What we invest

Staff

Volunteers

Time

Money

Research base

Materials

Equipment

Technology

Partners

What we do

Conduct workshops, meetings

Deliver services

Develop products, curriculum, resources

Train

Provide counseling

Assess

Facilitate

Partner

Work with media

Who we reach

Participants

Clients

Agencies

Decision-makers

Customers

Satisfaction

What the short term results are

Learning

Awareness

Knowledge

Attitudes

Skills

Opinions

Aspirations

Motivations

What the medium term results are

Action

Behavior

Practice

Decision-making

Policies

Social Action

What the ultimate impact(s) is

Conditions

Social

Economic

Civic

Environmental

Assumptions

External Factors

Evaluation
Focus - Collect Data - Analyze and Interpret - Report

Inputs

- Include resources dedicated to or used by program
- Includes, but not limited to:
    - Money
    - Staff, staff time
    - Volunteers, volunteer time
- Parent Education class example

Activities

- What the program does with inputs to fulfill its mission

- Includes, but not limited to:

  - Strategies
  - Techniques
  - Types of treatment that comprise program's service methodology

- Homeless program example

Outputs

- Direct products of program activities
- Measured by volume of work
- Examples include:
  - Number of classes taught
  - Number of counseling sessions conducted
  - Number of participants served
- Intended to lead to desired benefits

Outcomes

- Benefits, changes for individuals or populations during, after participation in program
- May relate to:
    - Behavior
    - Skills
    - Knowledge
    - Attitudes
    - Etc.

Outcomes Example

Increase in number of children & adolescents served by local MCH agency weighing within the health range BMI of ___% & __%

Nuts & Bolts

Goals vs. Objectives

Goals

- "Warm and fuzzy"
- Non-specific
- Non-measureable
- Ex: All Kansas children will be healthy

Objectives

- Realistic targets for program/project
- Answers
  - Who
  - What
  - Whey
  - Why
  - To What standard?

SMART Objectives

- Specific
- Measurable
- Achievable
- Relevant
- Time-framed

<u>S</u>pecific

- What exactly are we doing to do, with or for whom?

- Program states specific outcome

- Outcome stated in numbers, percentages, frequency, etc.

- Objective is clearly defined

Example Specific Objective

Increase the percent of pregnant women served by the local MCH agency that receives prenatal care in the first trimester of pregnancy from 75% to 80%

<u>M</u>easurable

- Is it measurable <u>and</u> can we measure it?
- Objective can be measured
- Measurement source identified
- All activties should be measureable at some level

Example Measurable Objective

Increase the percent of children and adolescents served by the local MCH agency weighing within the healthy range of body mass index (BMI) from 69% to 75% with referrals made as appropriate.

<u>A</u>chievable

- Can we get it done in the timeframe, for this amount of money?
- Objective/expectation must be realistic for resources available
- Resources include:
  - Time period
  - Funding available
  - Manpower available
  - Etc.

Example Achievable Objective

Increase the percent of pregnant women served by the local MCH agency that report discontinuation of tobacco use from 0% to 50%

Relevant

- Will this objective lead to the desired results?
- Outcome or results of program directly supports outcomes of agency, funder's goal

Example Relevant Objective

Increase the percent of pregnant women served by the local MCH agency who are asked if they are using any tobacco products

Timeframe

- When will this objective be accomplished?
- State clearly when the objective will be achieved

Example Timeframe Objective

Increase the percent of pregnant women served by the local MCH agency that receives prenatal care in the first trimester of pregnancy from 75% to 80% during SFY2007.

Process & Outcome Objectives

3 Kinds of Objectives

- Process
- Impact
- Outcome

Process Objectives

- Increases accountability by setting specific numbers/types of activities

- Tell what you are doing and how you will do it

- Describe participants, interactions, activities

Process Objective Example

By June 2008, the community action team will train at least 15 local childcare providers on non-violent child rearing practices

Impact Objectives

- Tell how you will change attitudes, knowledge or behavior in short term

- Describe degree to which you expect this change

Impact Objective Example

At the end of the training, 10 of the 15 local childcare providers at the training will be able to identify at least 3 non-violent child-rearing practices they will use

Outcome Objectives

- Explain long-term implications of program
- Describe expected outcome for community
- EX: By 2010, there will be a decrease in the rate of child abuse by 25% in our community

Process & Outcome Measures

- Process measures can include many aspects of your program such as:
  - Members who participate
  - Planning products
  - Media coverage
  - Financial resources
  - Services ultimately provided
  - Community actions

Outcome Objectives

- ## Change in behavior
  - By 2010, there will be a decrease in the rate of child abuse by 25% in our community.

- ## Changes in practices
  - 100% of pregnant women, infants, children and adolescents served by the MCH agency will have an identified medical home that consists of a provider as a regular source of care and an identified payor source during SFY 2007.

Stumbling Blocks

- Common problems when writing objectives include:
  - Writing an objective like an activity
  - Writing an objective like a vision
  - Writing too many objectives

Stumbling Blocks, cont.

- Unrealistic expectations
- Numbers are too small
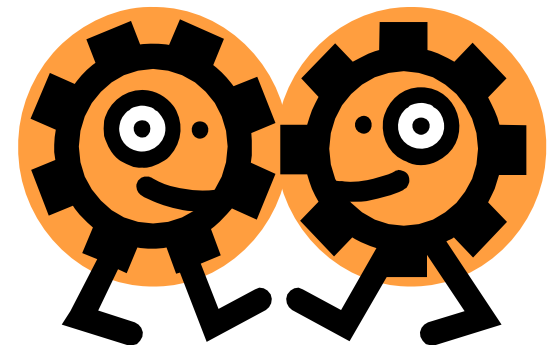- Can't show effect of intervention on population served

Places to Start

The Importance of Baseline data & Where to find data

Discussion

What are some sources of data you use for evaluation?

Baseline Data

- It's IMPORTANT
- Baseline data is basic information gathered before a program begins
    - Used later to provide comparison for assessing program
- Provides sense of where population is now
- Helps guide where program should go

Determinant Baseline Data

- Closely related to proposed program
- Example—if program objective is to:
    - Achieve 20 percent literacy
    - Train 100 teachers
    - Encourage all literacy program graduates to read
- Appropriate determinate baseline data would include:
    - Assessment of current literacy rates
    - Information on the number of trained teachers already available

Indeterminate Baseline Data

- Not directly related to objectives of program
- May provide context for program
- Indeterminate baseline data may include:
  - Average number of children per family
  - Number of schools in the area
  - Attitude of the people towards the use of the language of wider communication

Kansas Information for Communities (KIC)

- Available on-line at http://kic.kdhe.state.ks.us/kic/

- Data available by county, age of mother, education, race, ethnicity, etc.
  - Birth or Pregnancy
  - Death
  - Hospital Diagnosis
  - WIC (in Process)

- Emergency Department logs from local hospitals

Pub3669.pdf (application/pdf Object)   The Kansas Department of Health and E...   Kansas Information for Communities - KIC

Births 1990-2005
Cancer 1997-2003
Deaths 1990-2004
Hospital Diagnosis 1995-2005
Hospital Procedures 1995-2005
Population 1994-2005
Physicians 1994-2005
Pregnancies 1993-2004
Infectious Disease
1994-2003
County FastStats

Kansas City Metro Deaths 1990-2001

KIC User Survey

Other Data

BRFSS Data
Restaurant Inspections
Legislative Stats
Other Data Sources
New Data Issues

KIC Helpful Links

Notes and Limitations
KIC User Guide
Comments to KIC

KDHE Search:

[Search]

KIC Home

Kansas Information for Communities

Kansas Information for Communities

The Kansas Information for Communities (KIC) system gives users the chance to prepare their own queries for vital event and other health care data. The queries designed into this system will answer many health data requests. As KIC is implemented, more data will be added to the list. KIC programs will allow you to generate your own table for specific characteristics, year of occurrence, age, rate, sex, and county.

Datasets that can be queried are: **Births**, Deaths, **Pregnancies**, **Kansas Population Estimates**, Hospital Discharges by Diagnosis, **Hospital Discharges by Procedure**, **Cancer Incidence**, and **Kansas City Metro Area Deaths**.

Please take the KIC user survey!

The Kansas Department of Health and Environment is committed to enhancing Kansas Information for Communities. Your input is helpful to identifying areas in which KIC can be improved. We don't need your name, just your thoughts on how to make our service better.

Click here to go to the survey. Thank you for your help!

For further information on how Kansas Information for Communities was created, **Click here**

KIC User Survey	**KIC Home**
Birth Query	**Cancer Query**	Death Query	Discharge Query	**Population Query**	Pregnancy Query
Users Guide	**Notes and Limitations**	**E-Mail KIC Staff**	**Center for Health and Environmental Statistics**
Office of Health Assessment	**Office of Vital Statistics**	KDHE Home

Done

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(785) 296-1500 FAX:(785)368-6368 Email:info@kdhe.state.ks.us

Health   **Environment**   **Laboratories**

KIC Data Queries

Births 1990-2005
Cancer 1997-2003
Deaths 1990-2004
Hospital Diagnosis 1995-2005
Hospital Procedures 1995-2005
Population 1994-2005
Physicians 1994-2005
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Comments to KIC

KDHE Search:

[   ]
[Search]

KIC Home < **Birth Statistics Query**

Birth Statistics Query

This query module enables you to create tables or maps on birth outcomes. The table query will return birth outcomes grouped by year, county, race, Hispanic origin, and marital status. The map query will produce a county map of birth outcomes. Hispanic origin has not yet been incorporated into the map query. Cells with values less than 6 will be suppressed for confidentiality.

While every effort is made to assure the KIC data summaries parallel the results in the Kansas Annual Summary of Vital Statistics, some slight differences may occur. When the age, race, county of residence or any of the birth outcomes are not stated or unknown, these values are not in a separate column. In some instances you will be able to calculate the number of not stated or unknown values by deducting the sum of the all of the categories of known values from the total number of births.

For further explanation of all queries, click on KIC's notes and limitations. For specific information about birth statistics queries, please read the descriptions and disclaimers on the accompanying popup page. If you have popups blocked on your browser or if the secondary page did not load automatically with this window, it can be opened by clicking here.

There are 2 options for viewing data:

12	37	28
18	22	20

Table by County

Map of Counties

Birth Statistics Table by County

Allows you to generate a table for specific birth outcomes categorized by year of birth, age, race and county. You may specify the row and column variables and you may then specify the specific outcome variables to which the row and column variables will apply.

STEP 1)

Choose which variables you want in your table.

Rows:
- ◉ Year
- ○ Age Group
- ○ Race
- ○ Marital Status
- ○ Hispanic Origin
- ○ Outcome
- ○ Counties

Columns:
- ○ Year
- ◉ Age Group
- ○ Race
- ○ Marital Status
- ○ Hispanic Origin
- ○ Outcome
- ○ Counties

STEP 2) - OPTIONAL -

You can restrict your search by limiting certain variables.

○ Hispanic ○ Non-Hispanic ○ Not Stated ○ All ◉

Age of Mother: [All ▾]

Marital Status: [All ▾]

Race of Mother: [All ▾]

Note: If you picked one of these variables above as a row or column, then selecting it here will do nothing.

STEP 3)

You can limit your search by the outcome of the birth.

- Low Birth Weight
- Very Low Birth Weight
- Premature
- **Smoking during Pregnancy**
- Normal Birth Weight

STEP 4)

Select the county or counties that you wish to include.

- State of Kansas
- Allen County
- Anderson County
- Atchison County
- Barber County

Note: To select multiple counties, pick one with your mouse, then hold the control key down and pick the additional counties.

STEP 5)

Which year(s) would you like to include in your query?

1990	1991	1992	1992
1993	1995	☐1996	☐1997
1998	1999	2000	2001
2002	2003	☐2004	☑2005

[All Years] [Clear All]

STEP 6)

Finally, you can pick how you want to view the data:

- ○ Frequencies only
- ○ Frequencies and Percents By Column
- ○ Frequencies and Percents By Row
- ◉ Frequencies and Rates

[Submit Query]

This page revised: April 10, 2007

Vital and Health Statistics Data

Birth Statistics for the State of Kansas																
Outcomes: Smoking during Pregnancy																
Age Group																
	10 to 14		**15 to 17**		**18 to 19**		**20 to 24**		**25 to 29**		**30 to 34**		**35 plus**		**All Ages**	
Year	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**	**Number**	**Rate**
2005	#	@.@	205	18.1	794	27.6	2,744	24.1	1,639	14.1	686	8.4	404	9.1	6,475	16.3
Rotate							**Download**									
Footnote	# Indicates Confidentiality Rule Rates Per 100 # Indicates Numbers Below 6															

KIC User Survey	KIC Home
Birth Query	Cancer Query	Death Query	Discharge Query	Population Query	Pregnancy Query
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Office of Health Assessment	Office of Vital Statistics	KDHE Home

Death Statistics Table by County

This system allows you to generate a table for specific causes of death, categorized by Year, Age Group, Sex, Race, and County. You may specify the row and column variables and you may then specify the specific outcome variables to which the row and column variables will apply.

STEP 1)

Pick which variables you want in your table.

Rows:
- ◉ Year
- ○ Race
- ○ Sex
- ○ Age Group
- ○ Cause of Death
- ○ Ethnicity
- ○ Counties

Columns:
- ○ Year
- ○ Race
- ○ Sex
- ◉ Age Group
- ○ Cause of Death
- ○ Ethnicity
- ○ Counties

STEP 2) - OPTIONAL -

You can restrict your search by limiting certain variables.

Race [All ▾]

Sex [Both Sexes ▾]

Age [All ▾]

Note: If you picked one of these variables as a row or column then selecting it here will do nothing.

STEP 3)

Which years do you wish to see data for?

☐ 1990	☐ 1991	☐ 1992	☐ 1993
☐ 1994	☐ 1995	☐ 1996	☐ 1997
☐ 1998	☐ 1999	☐ 2000	☐ 2001
☐ 2002	☐ 2003	✔ 2004	

All Years   Clear All

STEP 4)

You can also limit your search by the cause of death. After you get a table for a certain cause of death, you will be allowed to "drill down" on the data, which means that you can look at the more specific causes of death that make up these broader topics.

- Total for all causes
- Tuberculosis
- Septicemia
- Syphilis
- Other infections and parasites
- Cancer
- Diabetes

STEP 5)

Select the county or counties that you wish to include.

- State of Kansas
- Allen County
- Anderson County
- Atchison County
- Barber County

Note: To select multiple counties, pick the first county with your mouse, then hold the control key down and pick the additional counties.

STEP 6)

Choose how you would like to view the data.

- ○ Frequencies only
- ○ Frequencies and Percents By Column
- ○ Frequencies and Percents By Row
- ◉ Frequencies and Rates

STEP 7)

These menus pertain only if rates are chosen in Step 6.

[Crude Rates ▾]

[No Confidence Intervals ▾]

Note: If you choose to view rates, you may view either crude or age adjusted rates. Confidence intervals are

STEP 8)

Your search is ready. Click the submit button.

[Submit Query]

Vital and Health Statistics Data

Provided on: Tuesday, April 17, 2007 by Kansas Information for Communities.
Center for Health and Environmental Statistics
Kansas Department of Health and Environment

Death Statistics for the State of Kansas											
	Age										
	Under 15		15 to 24		25 to 44		45 to 64		65 and over		All ages	
Year	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
2004	415	73.5	312	74.5	1,033	138.5	3,839	588.9	18,121	5,110.6	23,720	867.1
Rotate					Download						
Footnote	Rates Per 100,000										

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Local intranet   100%

http://kic.kdhe.state.ks.us/kic/cgi-bin/deathnew/death.exe?&geo=3&pth=death&fila=deathlist.txt&filb=dummy&sort=1&

Death Statistics for the State of Kansas

Vital and Health Statistics Data

Provided on: Tuesday, April 17, 2007 by Kansas Information for Communities.
Center for Health and Environmental Statistics
Kansas Department of Health and Environment

Death Statistics for the State of Kansas							
	Age						
	Under 1		1 - 4		5 - 14		Total for Selection
Year	Number	Rate	Number	Rate	Number	Rate	Number	Rate
2004	284	729.2	59	39.4	72	19.2	415	73.5
	Rotate			**Download**			
Footnote	Rates Per 100,000						

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The Kansas Department of Health and Environment

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Health   Environment   Laboratories

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KIC Helpful Links

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KDHE Search:

[   ] [Search]

KIC Home Page < **Kansas Hospital Discharge by Diagnosis Query**

Hospital Discharge Statistics by Diagnosis

This query generates custom tables for hospital discharges. Tables will display patient counts, rates, or length of stay (total or average) in each cell. Available row/column variables are: Year, Age Group, Sex, Race, Pay Source, Principal Diagnosis, and County. Because all diagnosis data have been reprocessed, queries run before March 1, 2007, will produce different results. Pay source information has also been categorized differently.

For further explanation of all queries, click on KIC's notes and limitations. For more information about hospital discharge statistics queries, please read the accompanying popup page. If you have popups blocked on your browser or it did not load automatically with this window, you can open it by clicking here.

There is currently one option for querying data:

Creating a table query allows you to select your row and column variables and display the results.   Table Query

These changes have not yet been applied to the map query. This query has been taken off line.

This page revised: January 26, 2007

KIC User Survey	KIC Home
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Done

Vital and Health Statistics Data

Hospital Discharge Statistics for the State of Kansas, by Diagnosis						
16. Injury and poisoning						
Age Group						
Under 15	**15 to 24**	**25 to 44**	**45 to 64**	**65 to 84**	**85 and Over**	**All**
Year Number	Number	Number	Number	Number	Number	Number
2005 1,533	2,284	4,471	6,322	8,642	3,973	27,225
Rotate			**Download**			

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Guidelines for Successful Evaluation

Invest in Planning

- Single most important step in evaluation process

- Determine what information is desired about program

- Consider what information is desired about program impact on participants

Integrate into Ongoing Activities

- Integrating evaluation into ongoing program activities increases efficiency, benefits

- Ideally, plan program & evaluation at same time

- Common stumbling block is evaluating after program is over or as added activity

Participate in Evaluation

- **Participation of program manager is critical**
    - For both internal, external evaluations
- **Increases value staff place on evaluation if manager is involved**
- **Increases sense of ownership for program staff to be involved in evaluation**

Involve Program Staff

- Involve as many program staff as feasible
- Involve program staff as early as possible
- Staff experience is rich source of information for evaluation
  - Ensure that evaluation is appropriate to program participants
- Increases sense of ownership of program, evaluation

Be Realistic about Burden on Staff

- Can be heavy burden, even with external evaluator

- Common for agencies, evaluators to underestimate time commitment

- Focusing on key questions can help reduce burden

Cultural, Ethical Issues

- Be aware of cultural, ethical issues when evaluating
- Consider your responsibilities to the participants, community
- Ensure evaluation is relevant to, respectful of cultural backgrounds of participants
  - Includes informing participants they are taking part in evaluation
  - Ensure confidentiality of participants

Resources

- Wikipedia entry on Evaluation: http://en.wikipedia.org/wiki/Evaluation
- CDC's Program Evaluation training http://www.cdc.gov/nchs/products/training/phd-osp.htm
- CDC's Framework for Program Evaluation document http://www.cdc.gov/eval/framework.htm
- KU's Community Tool Box: http://ctb.ku.edu
- American Physiological Society's Evaluation module: http://www.the-aps.org/education/promote/course.htm
- Pennsylvania St U Evaluation Resources http://www.extension.psu.edu/evaluation/
- HHS Admin for Children & Families Guide on program evaluation http://www.acf.hhs.gov/programs/opre/other_resrch/pm_guide_eval/index.html
- Free Management Library Evaluation guide http://www.managementhelp.org/evaluatn/outcomes.htm

Resources, cont.

- SAMHSA Intro to Eval
  http://pathwayscourses.samhsa.gov/eval201/eval201_intro_pg1.htm

- U of Wisconsin Outcome Eval Resources
  http://wphf.med.wisc.edu/how_to_apply/evaluationResources.php

- Neighborhood Works Evaluation Map
  http://www.nw.org/network/training/KCsymposium.asp

Discussion Time!

We'll use this time to discuss your experiences, concerns, and triumphs with evaluation.