

CAH/FLEX

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FINDINGS FROM THE FIELD

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From Washington: Modeling Economic Changes in Communities and Their Health Systems

Background

States are using their Rural Hospital Flexibility Program grants in a variety of ways to promote the sustainability of rural health systems. Washington State has used some of its grant funds from the Federal Office of Rural Health Policy to develop an Excel[®]-based econometric model as a tool to help rural communities to better understand and quantify the relationship between rural health care and rural economies.

What is the Strategy? Who is Doing it?

The Washington State Department of Health, Office of Community and Rural Health, contracted with the University of Washington's School of Public Health, specifically the Health Policy Analysis Program, to develop the model. Lance Heineccius led the development team, and he based the model on Excel[®], since it is a readily-accessible computer software program available to, and used by, most people in business and health care settings. The model was tested and refined in three rural Washington state communities. Hospital administrators in those communities were able to use the data generated in conversations with county commissioners about issues relating to subsidy, and in conversations with health providers about staffing and recruitment issues.

How Does the Model Work?

Eight worksheets are included in the model, all linked within one workbook. The model is designed to rely on a complex set of data already available through multiple government and private sources in a proprietary product called "Implan[®] State Data Package." Implan[®] provides county-level data for 1997 and earlier for 528

Previous Findings from the Field

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Project Website: <http://www.rupri.org/rhfp-track/>

different industry sectors and 21 different economic variables. The Washington State Department of Health purchased the rights to include county-level multipliers for income, employment, and other factors in the model for each of the 39 counties in the state. Data specific to the lead health care sector and other idiosyncratic information can be added.

Users need to enter baseline information about numbers of employees in the health care sector, and total payrolls for each sub-category of the health sector. Current utilization (market share) figures are also requested. Baseline economy figures come from Implan[®], unless the user has better information and/or wants to update the assumptions in the model. Population data is set up for three age groups: children, working-age adults, and persons 65 and older.

The spreadsheets are color-coded to help users identify which data they are invited to change, which data are based on assumptions, and which numbers are computational results. There are also “comment cells” for many items which explain how the data are defined, give the user on-screen assistance, and are intended to make the model easier to use.

The model allows the user to build various scenarios to explore their results, and to distinguish among different scenarios. For example, if a town is expecting a new prison to be built in the community, it can create a “Scenario 1-Prison with 500 beds,” a “Scenario 2-Prison with 300 beds,” and/or a “Scenario 12-Mine closes, 400 jobs with health insurance lost.” There are three important input/output spreadsheets in the package:

1. **“Change Health System”** is a spreadsheet that allows the user to make changes in health services volumes, jobs, and income levels, and then examines the impact of these changes on the local economy.
2. The **“Change Economy”** spreadsheet allows changes to three working-age adult sub-populations by job sector category, and estimates the ripple effects of new jobs on adding spouses and children to the community. The percent of uninsured can be changed in this worksheet, along with changes in special populations such as students, tourists, or migrant workers.
3. In the **“Change Population”** worksheet, the user can change the overall numbers of individuals in the population or make specific changes to individual age groups.

The econometric model is designed to show two types of impact:

- # the impact of changes in the local health care system on the local economy (specifically, indirect jobs, income, retail sales, and sales tax); and
- # the impact of local population and economic changes on the local health care system (such as the number of physicians required and hospital revenues changed).

How is the Econometric Model Useful?

Without inputting any hypothetical changes into the model, the program can generate a report about the current state of the health system and its impact on the local economy. A four-page report will tell users about the direct and indirect impact of the hospital on jobs, income, retail sales, and sales tax. This, by itself, is a useful communication tool with local decision-makers. For example, a 25-bed hospital can report that its facility generates one community job for every three hospital jobs. It also generates \$1.4 million in local retail sales, plus \$115,000 in tax revenues. This might be useful information when the county commissioners are deciding whether to create or extend a tax subsidy to the facility.

The same hospital may want to build an assisted living facility on its campus and needs to model the impact of new employees and revenues. In this case, the change will generate both health systems changes (need for more physicians) and local economy changes (more jobs and revenues).

Critical Access Hospitals can use the model to project length of stay changes, reduced number of beds, scope of services changes, market share changes, staffing changes, or other issues related to their change in status.

How Can I Find the Model and Use It Where I Live?

The model is available free of charge on both the Rural Hospital Flexibility Program web site (<http://www.rupri.org/rhfp-track/>) and the Washington Office of Community and Rural Health web site (<http://www.doh.wa.gov/hsqa/ocrh/>). It is currently loaded with data only for Washington counties, but the Washington data can be replaced by data from other states. The model is simple to download and comes with instructions and examples. It has been beta-tested in communities as small as 5,000 residents and as large as 35,000 residents. Note that data collection efforts in larger communities may take considerable time (over 60 person hours in a 35,000 person community).

Where Can I Get More Information?

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About this project: Check our website: <http://www.rupri.org/rhfp-track/>

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Background

The Rural Hospital Flexibility Program is a federal initiative to strengthen rural health. The Program:

1. Allows small hospitals the flexibility to reconfigure operations and be licensed as Critical Access Hospitals (CAHs).
2. Offers cost-based reimbursement for Medicare acute inpatient and outpatient services.
3. Encourages the development of rural-centric health networks.
4. Offers grants to states to help implement a CAH program in the context of broader initiatives to strengthen the rural health care infrastructure.

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