

State of Illinois

Rod R. Blagojevich, Governor

Department of Public Health

Eric E. Whitaker, M.D., M.P.H., Director



Illinois Health and Hazardous Substances Registry Annual Report

July 2005 through June 2006

Annual Report

Illinois Health and Hazardous Substances Registry

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**A Report to Governor Rod R. Blagojevich
and the 94th General Assembly
from the
Illinois Department of Public Health
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Director**

Prepared by the

Division of Epidemiologic Studies

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1. EXECUTIVE SUMMARY

The Illinois Department of Public Health's Division of Epidemiologic Studies is responsible for developing and managing the Illinois Health and Hazardous Substances Registry (IHHSR). The registry was created by the Illinois Health and Hazardous Substances Registry Act (410 ILCS 525/1 *et seq.*), enacted on September 10, 1984, and currently has the following components: the Illinois State Cancer Registry (ISCR), the Adverse Pregnancy Outcomes Reporting System (APORS), the Occupational Disease Registry (ODR)(which further contains the Adult Blood Lead Registry [ABLR], Census of Fatal Occupational Injuries [CFOI] and the Occupational Safety and Health Survey [OSH]), the Environmental Public Health Tracking (EPHT) and a research and data utilization section. This is the registry's 20th annual report and it describes accomplishments and research activities from July 2005 through June 2006 (FY06).

Overall, IHHSR activities in FY06 were characterized by a complete restoration of registry infrastructure and functions lost four years ago, and continued expansion of registry operations for disease surveillance and support to research. A combination of strong Department leadership and hard work by division staff enabled the IHHSR to accomplish its mission as outlined in the act, which includes the following activities:

- Collect and maintain high quality reports on the incidence of cancer, adverse pregnancy outcomes, and occupational diseases and injuries;
- Conduct epidemiologic assessments on public health outcomes and hazardous substances;
- Provide a source of information for the public;
- Monitor changes in incidence to detect potential public health problems to predict risks and to conduct cancer cluster investigations;
- Use data to target intervention resources for communities and patients and their families;
- Inform health professionals and citizens about risks, early detection and treatment of cancers found to be elevated in their communities; and
- Promote high quality research to provide better information for disease prevention and control.

1.1 Illinois Health and Hazardous Substances Registry Goal

The goal of the registry, according to the act, is to develop and maintain a unified system for the collection and compilation of statewide information on cancer incidence, adverse pregnancy outcomes, occupational diseases and injuries, and

hazardous exposures; for correlation and analysis of information on public health outcomes and hazardous substances; and for use of this information in decision making and public health policy development.

1.2 Fiscal Year 2006 Main Accomplishments

- Received \$2,324,757 from federal funds and \$20,795 from other non-general revenue sources to support activities of the Department's Division of Epidemiologic Studies. All components of IHHSR receive federal funding.
- Responded to 104 inquiries about perceived cancer excesses in local communities. Twenty-eight of the inquiries were responded to with previously conducted reports for the areas in question. A total of 60 inquiries were answered with published cancer rates by county or epidemiologic reports; and seven in-depth evaluations were completed.
- Collected reports on Illinois residents with 60,129 newly diagnosed cancer cases (2003), 11,163 adverse pregnancy outcomes (2004), 182 adult lead poisoning cases (2005), 67,480 representative non-fatal occupational disease and injury sample records (2004), 198 fatal occupational injuries (2005) and 992 fatal occupational illnesses (2005).
- Responded to 171 requests for general information about the registry, 190 requests for epidemiologic reports and registry data, and 38 special data requests or collaboration from outside researchers.
- Prepared and submitted seven grant proposals to support the registry's operations and research.
- Released 12 reports in the Epidemiologic Report Series and prepared seven written reports for quality control studies of registry data.
- Participated in statewide health programs, provided data and information support as needed.
- Delivered 14 presentations at professional meetings and 77 training workshops at medical facilities and IDPH offices.
- Achieved national "best in class" or "above average" status for all registry components that can be externally evaluated.

1.3 IHHSR Coordinating Council

The IHHSR Act created the Health and Hazardous Substances Coordinating Council comprising the following persons ex officio or their designees: dean of the School of Public Health of the University of Illinois at Chicago, the directors

of the Illinois departments of Agriculture, Labor, Natural Resources, Nuclear Safety (now part of the Illinois Emergency Management Agency), Public Health, and of the Illinois Environmental Protection Agency. Since 2005, a Department of Human Services representative has been invited to the annual meeting because of the Council's recommendation in 2004. The council met on August 24, 2006, to hear division accomplishments, to discuss current issues, and to approve the fiscal year 2006 annual report.

1.4 Goals for Fiscal Year 2007

1. Continue to collect complete and quality data to monitor disease trends among Illinois residents.
2. Engage partners, stakeholders and communities in data dissemination and utilization to reduce health disparities.
3. Respond to public concerns about disease clusters in various geographic areas in Illinois through increased geocoding.
4. Conduct activities stipulated or required by federal cooperative or research grants.
5. Pursue grants and other funding opportunities in order to sustain and enhance the division's programs.
6. Conduct epidemiologic studies with registry data to provide information to the public health community and policy makers.
7. Provide epidemiological data and information to federal, state, and local health education and intervention programs.
8. Work with the Department's Data Release and Research Committee to provide researchers with high-quality and timely registry data to support research advancing scientific knowledge and improving public health.
9. Provide enforcement agencies with health surveillance information to enhance their intervention and regulatory programs and to improve public health and safety.
10. Participate in national registry certification and data submission activities. Maintain registry's best in class status and data usefulness.

2. PROGRAM DATA

Table 2.1 and 2.2 summarize the registry's data collection and dissemination activities for last year compared with data from the previous four years. In order to be consistent with the common reporting schedule, numbers in Table 2.1 are expressed in calendar years during which cases were diagnosed or defined. There is normally a two-year time delay for cases being reported to IHHSR. Projections for the future year also are included.

Table 2.1 Registry Data Collection						
	Calendar 2000	Calendar 2001	Calendar 2002	Calendar 2003	Calendar 2004	Estimated 2005
ISCR Invasive Neoplasms (including bladder <i>in situ</i>)	58,491	59,420	60,633	58,233	58,940 ¹	59,860 ¹
Breast <i>in situ</i>	1,965	2,012	1,919	1,896	1,900 ¹	1,950 ¹
APORS Cases	16,939	18,505	13,922	12,556	11,163	12,000
Occupational Disease Cases ABLR lead poisoning						
New cases	578	332	252	266	150	182 ²
Prevalent reports	2,224	2,236	1,462	1,016	725	847 ²
Occupational Fatality Cases						
Injuries	1,519	1,462	929	1,195	1,470	1,190 ²
Illnesses	206	231	190	200	208	198 ²
Illnesses	1,313	1,231	793	994	1,270	992 ²
Occupational Safety and Health Survey						
Estimated Cases³	72,929	65,888	63,000	66,110	67,480	66,000
Sprains, strains	30,701	28,048	27,751	29,550	27,800	28,000
Bruises, contusions	5,456	4,898	4,300	5,820	6,430	5,400
Cuts, lacerations	5,689	4,849	5,700	5,060	3,860	5,300
Fractures	5,096	5,113	5,132	4,400	4,800	4,200
Multiple injuries	1,838	1,810	1,608	2,190	3,080	2,000
Carpal tunnel syndrome	1,500	1,884	1,480	1,850	1,360	1,500
Heat burns	769	871	1,345	950	800	900
Tendinitis	671	422	165	410	450	450
Amputations	696	658	453	540	280	500
Chemical burns	379	275	276	570	280	300
Hazardous Substances (GIS)⁴						
Geocoding registry cases	All	All	All	All	All	All

¹Reporting is not complete for the calendar year indicated. The numbers are estimated based on the current projected incidence.
²Actual counts for 2005
³Estimated numbers based on Occupational Safety and Health sample survey.
⁴For specific results of geocoding of APORS and cancer cases for the Health and Hazardous Substance Registry, see section 6.

Table 2.2 Registry Data Dissemination and Translation						
	FY 02	FY 03	FY04	FY 05	FY06	Estimated FY07
Data Request						
General information	91	89	114	106	171	150
Data and reports	115	112	113	128	190	175
Cluster evaluations	8	4	1	1	7	0
Confidential data for research	15	8	9	16	13	12
Quality Assurance Studies¹						
Casefinding visits						
APORS				417	464	450
ISCR				395	252	118
Cases added from casefinding visits						
APORS				7,166 ²	8,243 ²	7,700
ISCR				1,781 ³	2,289 ³	1,071
Internal quality control						
APORS				5	5	5
ISCR				17	16	15
Public Use Files	3	3	4	3	3	3
Publications						
Epi Report Series	9	5	5	5	12	10
Surveillance reports	1	1	0	0	0	0
Peer-reviewed publications	0	2	2	2	2	1
Brief reports						
Newsletter articles	4	0	0	0	0	0
Reports using registry data	8	9	19	13	25	20
Oral/Poster presentations	46	31	63	52	91	75
Grant Proposals Funded	9	9	9	11	7	6
¹ At the recommendation of the IHHSR Coordinating Council, quality assurance study counts are adjusted for FY05 and FY06 to more accurately reflect the quantity of work performed and the outcome of that effort.						
² Represents additional birth defects identified and confirmed through the active case verification process where the medical records of previously submitted cases were reviewed.						
³ Represents cases missed during hospital reporting and identified during casefinding visits.						

3. ILLINOIS STATE CANCER REGISTRY

The Illinois State Cancer Registry (ISCR) is the only population-based source for cancer incidence information in Illinois. Cancer cases are collected through mandated reporting by hospitals, ambulatory surgical treatment centers, non-hospital affiliated radiation therapy treatment centers, independent pathology labs, dermatologists and through the voluntary exchange of cancer patient data with 12 other (mostly nearby) states. Currently four of the five Veteran's Administration (VA) facilities in Illinois are reporting cases to ISCR.

Of the 193 reporting hospitals, only six continue to report manually, while the remaining 187 hospitals report electronically. Of the 71,335 individual abstracts submitted for the 2003 report year, only 1,317 (1.9%) were submitted manually. The majority of abstracts (98.1%) were submitted electronically.

3.1 Review and Evaluation of Fiscal Year 2006 Goals

Maintain/Enhance Completeness of Reporting

- Estimated the completeness of Illinois cancer incidence for the 2003 diagnosis year.
- Implemented monitoring on a monthly basis to ensure completeness by comparing observed-to-expected Illinois cancer incidence cases (diagnosis years 2003-2005).
- Provided quarterly Data Quality Indicator Reports for facility-specific historic-to-current submission comparisons.
- Performed follow-back to physician's offices for all non-reported cases identified through hospital affiliated pathology labs casefinding for the 2003 diagnosis year. This activity added 460 abstracts to the ISCR database.
- Completed death clearance for the 2003 diagnosis year with a *death certificate only* rate of 1.6 percent. The gold standard is to have a rate of less than 3 percent.
- Maintained interstate data exchange with 12 other states. A total of 3,600 previously unreported cases were added to the cancer database for the 2003 diagnosis year.
- Casefinding visits were not completed for all (n=400) reporting facilities for the 2004 diagnosis year. During the summer of 2005, ISCR lost one field staff person and it was not possible to complete case finding at all

reporting facilities in Illinois with the three remaining field staff. There were 252 actual casefinding visits completed in FY06 for the 2004 diagnosis year, which identified 2,289 missed cases.

Maintain Timeliness of Reporting

- More than 95 percent of the unduplicated cases of cancer for the 2003 diagnosis year were available to be counted as incident ISCR cases by December 2005. There were 58,233 cases on the database with a diagnosis year of 2003. The expected number is 59,080.
- Electronic files from Dianon Labs were added to an ACCESS database, coded and matched with our cancer database. Unmatched records were followed back to the physician offices for diagnosis and treatment information. For the 2004 diagnosis year, 406 previously unreported cases were added.
- ISCR staff investigated out of state labs that process specimens from Illinois. A total of 13 labs were contacted from June 30, 2005 to February 28, 2006. Only one of these facilities processed malignant specimens that should be reported to ISCR.
- Less than 90 percent (n=53,784) of the expected, unduplicated, invasive cases of cancer for the 2004 diagnosis year (n=59,760) were available to be counted as incident cases by December 31, 2005. As of that date, 84 percent (n=50,362) of the 2004 diagnosis year cases were on the ISCR database.

Maintain Quality Control and Audit Activities

- Quality control review, utilizing the NPCR-CSS inter-record edits, was performed for the entire database on a quarterly basis.
- The NAACCR duplicate methodology was used in November 2005 to access duplicate cases on the database. Since the monthly use of the NAACCR protocol did not prove to be operationally effective, a different method is being used for monthly review of potential duplicates.
- In November 2005, utilizing the NAACCR methodology for evaluating duplicates, a review of potential duplicates for all 1995-2003 cases, was also performed.

- The NAACCR duplicate protocol guidelines were applied to the file created for the call for data and included 1999 through 2003. There was one duplicate found among 4,628 incidence cases and the result was .02 percent. This falls within the gold standard range of no more than one duplicate per 1,000 records.
- An EDITS check was performed on cases diagnosed between 1995 and 2003 in preparation for the NAACCR call for data using the NAACCR EDITS metafile. This record review was completed in November 2005 and the data were submitted within the timeframe without any outstanding edits.
- A linkage between ISCR and the 2003 vital records tape was completed in December 2005 in order to enhance the completeness of selected variables (place of birth, race, maiden name and Spanish/Hispanic origin).
- A quality control (QC) review was performed in November 2005 to verify sex and name for all cases added to the database since July 2004 and to correct gender as needed.
- Using the NPCR CSS, inter-record edits, ISCR staff performed a quality control review of the 1995 through 2003 diagnosis years in preparation for the NPCR call for data. This review was done on a quarterly basis, with one final run on the final NPCR Call for Data file only.
- An item-specific review for cases diagnosed in 2003 was completed by the audit manager. The overall item-specific completeness was 96.3 percent.
- A quality control review was performed for cases with diagnosis years 1986-2003. The 1986-2003 research and public data set files were created and the data on the IDPH Web site were updated.
- Since treatment information has been requested for both the NAACCR and NPCR calls for data, the objective related to completing an analysis of staging schemes was changed and treatment information is being reviewed. Cases (n=64,102) for the 2002 diagnosis year are being reviewed for validity of treatment codes.

Maintain Basic and Advanced Training

- Six basic training sessions were held throughout Illinois during the last fiscal year. The basic sessions are offered on an ongoing basis due to continual changes in reporting facility staff.
- Twelve advanced staging workshops were held during the last fiscal year.

- The ISCR trainer and the QC field staff provided individual training at 25 reporting facilities.
- Eighty-three abstractors have completed the new abstractors program since the program started in June 2002. There are 47 new abstractors currently enrolled in the program. Six abstractors have completed the six-month re-review. Thirty-five completed the program in FY06.
- The Illinois Cancer Registrars Education Coalition (ICREC) conducted two, one-day certification prep workshops and a two-day basic training workshop for new registrars at American College of Surgeon's approved cancer programs.
- Staff continues to maintain phone and e-mail support for all questions concerning abstracting, edits, software updates, move-it and Web portal. During the last year, the trainer has taken 272 calls.
- Fifteen ISCR staff attended the annual Cancer Registrar's of Illinois educational conference held in Peoria, Illinois, in September 2005, where they participated in a Process Improvement Program (PIP) workshop (see 3.2.3.) ISCR staff also participated in the National Program of Cancer Registries Education & Training Series: *How to Collect High Quality Prostate Cancer Surveillance Data* on January 24, 2006, via webex. Larry Hebert of the ISCR staff attended the annual conference of the Rocky Mountain Cancer Data System in Arlington, Virginia, on September 21-23, 2005. Jim Hofferkamp attended the *SEER/NPCR Histology and Multiple Primary Rules Train the Trainers* workshop (Part I) held August 2005 in Potomac, Maryland. Cathy Buchanan of the ISCR operations staff attended the annual conference of the National Cancer Registrar's Association in May 2006 in Arlington, Virginia, where she made a presentation on *Enhancing Casefinding at the central cancer registry through Pathology and Reference Lab Reporting*. Jim Hofferkamp, ISCR trainer, attended the annual North American Association of Central Cancer Registries meeting in Regina, Saskatchewan, in June 2006.
- The ISCR trainer provided quarterly continuing education (CE) approved in-service programs for the ISCR staff: September 2005, *Software Updates and Staging of Ovarian Cancer*; December 2005, *Collaborative Staging for Lung and Radiation Overview*; February 2006, *Systemic Treatment and Collaborative Staging of Melanoma*; and May 2006, *2006 Standards Update and Collaborative Staging of Lymphoma*.

Submit Cancer Data to U.S. Centers for Disease Control and Prevention (CDC)

- All edits and case reviews were completed on the NPCR call for data file by early January and the file was submitted on January 27, 2006, with a total of 550,521 tumor records.

Maintain Current Data Utilization Activities

- Thirty-one requests were received and completed for individual hospital reports.
- ISCR provided information to the staff of the Illinois Comprehensive Cancer Control Program during the preparation of the Illinois Cancer Control Plan and on an ongoing basis as requested.
- The annual Illinois cancer statistics report for 1986-2003 was released in June 2006 (ERS 06:03).
- The county-specific report for Illinois (1999-2003) was released in May 2006 (ERS 06:02).
- In August 2005, administrative staff prepared and released the 12th edition of the ISCR public data set files for 1986-2002. In April 2006, administrative staff prepared and released the 13th edition of the ISCR public data set files for 1986-2003. Separate files are available for the state, county, and ZIP code areas. With these editions, pediatric cancer incidence was added to the state file, the 1993 and 2003 rural/urban codes were added to the county files, and stage of disease and a latitude/longitude code for the centroid of the ZIP were added to the ZIP code file.
- Data were prepared for the state and county for 14 indicators by five-year rolling groups for all years from 1986-2002 in September 2005. This was for use with the Illinois Project for Local Assessment of Needs (IPLAN).
- Staff continued to respond to all inquiries about perceived cancer clusters by providing information and educational materials regarding the diseases of cancer. Seven evaluations of perceived clusters (from one request in January 2005) were completed in June 2006. (See Section 7 for details.)
- Data for the 1986-2003 Web-based cancer inquiry system was updated on the IDPH Web site in April and May 2006.

- ISCR staff re-geocoded the entire ISCR database for 1986-2003 data (n=977,610) in October 2005. An address-level (best) geocode was assigned to 89 percent (n=840,549) of the cases. An additional 10.1 percent (n=98,459) of these cases were assigned a less-specific geocode.
- Staff continued to coordinate all activities related to applications for access to confidential cancer data from researchers. In the last year, three applications were received.
- Coordinated ISCR participation in 12 special studies requiring patient consent/contact and collaborative projects requiring linkage with outside data sets.
- The annual Report on the Status of Cancer in Illinois for 1998-2003 was not completed due to the departure of the Division's cancer epidemiologist in November 2005. Other tasks assigned to the epidemiologist were completed by staff in the division.

3.2 Fiscal Year 2006 Major Accomplishments

3.2.1 Death Certificate Coding

ISCR worked with the Division of Vital Records to develop a plan for more timely access to death certificate records. This included data entry of additional fields by a contracted vendor and coding of cause of death by trained ISCR staff using Super-MICAR software. A coded file was completed and submitted to the CDC National Center for Health Statistics (who had previously coded the death certificates) and was approved. ISCR staff coded causes of death for deaths that occurred in late fall 2005.

3.2.2 ISCR Web Home Page

ISCR staff worked with Department Information Technology (IT) staff to develop an ISCR home page on the IDPH intranet. The Web site contains information for the New Abstractor program, access to Abstract Plus and the current EDITS software, instructions for submitting cases electronically, copies of QC reports, downloadable versions of the ISCR data manual, links to other cancer related sites and a link to the ISCR community bulletin board. Cancer reporters are able to submit changes and deletes electronically, update their facility information electronically and find contact information for ISCR staff. Training information, including electronic presentations, training calendar, and interactive electronic registration forms that can be e-mailed to the trainer are also available on the Web page. The creation of this Web page greatly reduced the number of manual (paper) submissions of information, reduced the printing of manuals and other forms and has provided an immediate and extensive resource for all cancer reporters. Staff is working with CDC NPCR to develop an online data entry program.

3.2.3 Process Improvement Program (PIP) Workshop

During September 2005, the ISCR staff participated in a NAACCR Process Improvement Program (PIP) Workshop at the annual Cancer Registrars of Illinois meeting. The purpose of the PIP Workshop is to enhance data quality through improved collaboration, more effective communication and strengthened relations between central cancer registry staff and local cancer registrars/reporters. The feedback from the workshop was positive and the staff of the central registry is working with the NAACCR workshop coordinator to respond to suggestions from conference participants related to the death certificate process, more access to data and ongoing training issues.

3.2.4 North American Association of Central Cancer Registries Gold Certification

At the annual meeting of NAACCR, held June 12-15, 2006, in Regina, Saskatchewan, Canada, ISCR was recognized as having met the *gold standard* – the highest standard for registry certification. To be awarded this honor, a registry must have 95 percent or better completeness of case ascertainment; 98 percent validity of information recorded for selected data variables (age, sex, race and state/county); death-certificate only cases less than 3 percent; duplicate primary cases less than one per 1,000; and 99 percent of the records passing the NAACCR EDITS without error and data submissions within 24 months of the close of the accession year. This is the eighth consecutive year that ISCR has received this highest quality certification.

3.2.5 Collaboration with State and National Organizations

3.2.5.1 Illinois Comprehensive Cancer Control Program - Illinois Department of Public Health. The Illinois Department of Public Health has finalized the Comprehensive Cancer Control State Plan, which identified cancer prevention and control priorities for Illinois. The Department will begin implementation of the plan during the coming year. Several division staff were involved in the development of the plan. The ISCR manager is also serving as chair of the Data and Surveillance Workgroup.

3.2.5.2 Vital Records – Illinois Department of Public Health. Death certificate data from the Division of Vital Records (VR) are matched with the registry database on an ongoing basis. Follow-back is performed on non-matched cancer cases and death information is added to matched cases. Death information available from the VR death tape is also used to populate an Internet-based death query system that is accessible through password and ID. This system is used by hospital-based cancer

registrars to obtain follow-up information on cancer patients from their facilities.

The VR death tape also contributes to the data quality and item-specific completeness of the ISCR database through a matching protocol. Known information from the VR death tape are imported into the ISCR database (when unknown on the ISCR database) for the following variables: race, birthplace, Hispanic origin and maiden name.

3.2.5.3 American Cancer Society (ACS) – Illinois Division. ISCR provided customized cancer incidence data for the publication *Illinois Cancer Facts & Figures, 2006*. The publication will be widely distributed in Illinois to cancer control programs and health professionals. ISCR staff also serves on the cancer registry subcommittee of the Cancer Incidence and End Results (CIER) Committee and of the Data Collection and Reporting Task Force. This subcommittee is responsible for organizing and presenting an annual cancer registrar educational workshop, a basic training session and a certified tumor registrar preparation course.

3.2.5.4 University of Illinois at Chicago. ISCR continues to collaborate with the University of Illinois to build a core capacity to conduct rapid case ascertainment (RCA) activities to facilitate early identification and recruitment of breast cancer patients to an epidemiologic study funded by the National Cancer Institute (NCI). The study, “Breast Cancer Care in Chicago,” is exploring how women are diagnosed with breast cancer at the various stages of disease and why women receive different kinds of treatment for their cancer. Patient accrual for this study began in May 2005 and 1,100 patients have been identified.

3.2.5.5 North American Association of Central Cancer Registries. ISCR provided data to NAACCR in response to the call for data and registry certification process. The data were used to generate cancer descriptions in North America publications. Staff also participated in various NAACCR committees and workgroups, contributing knowledge and expertise to this volunteer organization.

3.2.5.6 CDC National Program of Cancer Registries (NPCR). ISCR submitted data to the CDC National Program of Cancer Registries call for data. All malignant tumors, whether *in situ* or invasive, were included. The annual submission satisfies the program requirements for reporting registry progress to CDC and contributes information to the national cancer surveillance effort.

3.2.5.7 Illinois Breast and Cervical Cancer Program (IBCCP). ISCR provided ongoing data support for this federally-funded program, which focuses on developing comprehensive education, outreach and screening for breast and cervical cancer.

Additionally, a linkage between the ISCR database and the Illinois Breast and Cervical Cancer database was completed with the identification of 722 matches. Staging and treatment information was returned to the program for distribution to local health departments as per standing agreement. Further analysis of the breast and cervical cancer file has been assigned to the data use coordinator who will evaluate the data, discuss with the manager, and possibly determine a data project of interest to the division and agency.

3.2.5.8 Illinois Cervical Cancer Elimination Task Force. As a member of this statewide task force appointed by the IDPH director, ISCR provided data as well as analytical support to the group's Cervical Cancer Task Force Annual Report in April 2006. Cervical cancer burden risk factors, and prevention and control plans were discussed and reviewed in the report. Some specific recommendations of the task force were generated based on ISCR's focused analysis of trends and distribution by race, ethnicity, and geographical areas.

3.2.6 Quality Control Reports

- 3.2.6.1** Koch L. *Re-abstracting Study for Non-Registry Hospitals and Ambulatory Surgery Treatment Centers, Diagnosis Year 2002*, Quality Control Report Series 05:10, Illinois Department of Public Health, October 2005.
- 3.2.6.2** Snodgrass J. *Abstract Submission Completeness by Reporting Facilities for the 2003 Diagnosis Year*, Quality Control Report Series 05:07, November 2005.
- 3.2.6.3** Parrish P. *Assessment of Duplicate Records for 1999-2003 Diagnosis Years*: Quality Control Report Series 05:08, November 2005.
- 3.2.6.4** Koch L. *Quality Control On the Accuracy of Coded Gender According to First Name*, Quality Control Report Series 05:11, Illinois Department of Public Health, November 2005.

- 3.2.6.5** Parrish P. *Item-specific Completeness Report for 2003 Diagnosis Year*, Quality Control Report Series 05:09, Illinois Department of Public Health, December 2005.
- 3.2.6.6** Koch L. *Linking Illinois State Cancer Registry Records with Vital Records Death Match File to Enhance Data Completeness*, Quality Control Report Series 05:12, Illinois Department of Public Health, December 2005.

3.3 Goals for Fiscal Year 2007

Maintain/Enhance Completeness of Reporting

- Estimate the completeness of Illinois cancer incidence reporting for 1995-2004 diagnosis years using the revised NAACCR methodology.
- Provide quarterly facility-specific Data Quality Indicator Reports comparing facility-specific observed to expected case submissions and comparing information on facility-specific historical to current submissions for the 2004-2007 diagnosis years.
- Complete case finding visits at selected reporting facilities in Illinois for the 2005 diagnosis year.
- Complete follow-back to physician's offices for all non-reported cases identified through hospital affiliated pathology case finding for the 2004 diagnosis year and add a complete abstract to the ISCR database.
- Develop a plan for collection of pathology reports through the NEDSS reporting system in conjunction with the Illinois NEDSS staff.
- Complete all follow-up for the 2004 cancer deaths not matched to ISCR and determine the Death Certificate Only (DCO) rate for 2004.
- Complete the match between the ISCR file and 2005 death tape and begin passive follow up of non-matched 2005 cancer death cases.
- Complete processing of inter-state data exchange files including application of Illinois specific edits metafile and the inter-record edits prior to adding cases to the database for the 2004 diagnosis year.

Maintain Timeliness of Reporting

- Make available 90 percent (n=53,712) of the estimated, unduplicated, invasive cases of cancer for the 2005 diagnosis year (n=58,680) and 95 percent (n=55,993) of the estimated, unduplicated, invasive cases of

cancer for the 2004 diagnosis year (n=58,940) within the NPCR guidelines.

- Prepare individual 2005 close out reports and request documentation from facilities that have failed to meet the six-month reporting guideline.
- Implement access to Web-based abstracting software for those facilities who currently report less than five abstracts per month.

Maintain Quality Control and Audit Activities

- Utilize NPCR-CSS inter-record edits to perform quarterly quality control review of all data received during the previous quarter.
- Continue monthly review of all new submissions against the current ISCR database to identify potential duplicate abstracts and merge abstracts as necessary to insure a duplicate rate of less than 0.1 percent.
- Complete the NAACCR protocol for identifying unresolved duplicate records for the 2007 call for data files.
- Perform EDITS checks on cases diagnosed between 1995 and 2004 in preparation for the NAACCR and NPCR call for data.
- Complete a linkage of the 2004 vital records tape to the ISCR database to enhance the completeness of selected variables (place of birth, race, maiden name and Spanish/Hispanic origin).
- Complete a comparison of sex and name for all cases added to the database since July 2005.
- Complete an item-specific review for cases diagnosed in 2004.
- Perform quality control review of data pulled for the ISCR research and the public data set for diagnosis years 1986-2004.

Maintain Basic and Advanced Training

- Present six basic training sessions for reporting facilities.
- Present six advanced training sessions for reporting facilities.
- Provide individual training for all new incidence reporters in Illinois through the ISCR new abstractor training program.

- Collaborate with state registry associations and the Illinois Division of the American Cancer Society (ACS) to provide educational opportunities to the Illinois registrars and the cancer incidence reporters.

Submit Cancer Data to U.S. Centers for Disease Control and Prevention (CDC)

- Submit a non-confidential analytic data file of cancer incidence records to CDC per recommended guidelines.

Maintain Current Data Utilization Activities

- Prepare individual hospital reports as requested by submitting facilities.
- Provide collaborative support for the Illinois Comprehensive Cancer Control Program (ICCCP), the Illinois Breast and Cervical Cancer Program (IBCCP) and the Illinois Division of the American Cancer Society through continued participation in the Surveillance and End Results Committee.
- Promote the use of cancer incidence data to the University of Illinois at Chicago (UIC) School of Public Health.
- Produce the annual Illinois cancer statistics report for the 1986-2004 diagnosis years, a county-specific report for Illinois (2000-2004), and one ad hoc report.
- Prepare three electronic public use data sets (state, county and ZIP code) (1986-2004) and provide access through the Department Web site.
- Provide an electronic data file (1986-2004) for use by the Department in local health planning (IPLAN).
- Provide general information to the public concerning perceived cancer clusters and conduct in-depth cancer cluster evaluations as staff time permits.
- Update Web-based cancer inquiry system with data from 1986-2004.
- Geocode data received since October 2005 using the most recent version of MapInfo Professional© and MapMarker Plus© software and add geocoded information to the ISCR database.
- Coordinate all activities related to applications for access to confidential cancer data from researchers including those special studies requiring patient consent/contact and collaborative projects requiring linkage with outside data sets.

- Coordinate ISCR participation in special studies requiring patient consent/contact and collaborative projects requiring linkage with outside data sets.
- Update cancer death query system when final 2005 death file is available.

4. ADVERSE PREGNANCY OUTCOMES REPORTING SYSTEM

The Adverse Pregnancy Outcomes Reporting System (APORS) collects information on Illinois infants born with birth defects or other abnormal conditions. The purpose of APORS is to conduct surveillance on birth defects, to guide public health policy in the reduction of adverse pregnancy outcomes, and to identify and refer children who require special services to correct and prevent developmental problems and other disabling conditions.

Mandated statewide data collection began in August 1988. All licensed Illinois hospitals are required to report adverse pregnancy outcomes to APORS. In addition, APORS receives reports from four hospitals in St. Louis, Missouri, that are part of the southern Illinois perinatal network. A few Indiana and Iowa hospitals also report Illinois children.

APORS cases meet one or more of the following criteria.

- The infant is diagnosed prior to hospital discharge as having a positive drug toxicity for any drug or shows signs and symptoms of drug toxicity or withdrawal;
- the infant is diagnosed with a congenital anomaly; a congenital infection; endocrine, metabolic or immune disorder; or blood disorder;
- the infant has a birth weight of less than 1,500 grams; or
- a neonatal or fetal death has occurred.

4.1 Review and Evaluation of Fiscal Year 2006 Goals

Improve Casefinding

- Conducted training at 46 hospitals regarding case identification.
- Matched APORS newborn cases with hospital discharge data from 25 hospitals and identified 350 missed newborn cases.
- Matched APORS 2003 newborn cases with vital records (VR) birth data and identified 230 missed newborn cases.

- Tested matching APORS newborn cases with VR death data to identify major birth defects cases.
- Performed active case verification with new casefinding by performing hospital chart review.

Improve Quality of APORS Data

- Evaluated the accuracy of hospital reporting in terms of timeliness and accuracy; provided hospital-specific feedback and used results to identify hospital training needs.
- Evaluated the quality of the active case verification process in terms of timeliness and accuracy; provided individual-specific feedback and used results to identify staff training needs.
- Initiated weekly processing of APORS cases to geocode the infant's address as cases were submitted. As a result, 98.5 percent of the addresses are geocoded to a ZIP code level or higher.

Improve Program Effectiveness

- Completed an assessment of follow-up services provided to 2002 and 2003 APORS cases by local health department nursing staff. Sixty-one percent of families received at least one home visit and 28 percent completed the two-year program. No other state's program can demonstrate such high level of participation.
- Referred 51 women to local health departments for neural tube defect recurrence prevention counseling.
- Evaluated the timeliness of APORS reporting and reported processing to identify areas for improvement through training and automation.
- Produced birth defect prevention materials for distribution at conferences, colleges, the Illinois State Fair and local health departments.
- Maintained linkages with key organizations such as the Illinois perinatal networks, the Illinois Perinatal Statewide Quality Council, the Greater Illinois Chapter of the March of Dimes, the Illinois Folic Acid Campaign and the National Birth Defects Prevention Network, and provided data to these organizations for use in their efforts to promote birth defect prevention.

- Began development of a new data system for hospital-reported cases. The new system is expected to be completed in 2007 and will connect with the APORS birth defects surveillance data system.

4.2 Fiscal Year 2006 Major Accomplishments

4.2.1 Cooperative Agreement with the U.S. Centers for Disease Control and Prevention

APORS completed its third year of a five-year cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC) to enhance Illinois birth defects surveillance and service referral.

4.2.2 Hospital Training

In-service training for medical staff was conducted at 46 hospitals throughout the state. The purpose of the training was to promote the reporting of infants exposed to or diagnosed with hepatitis B and to review APORS reporting. Case identification and timeliness of reporting were emphasized.

4.2.3 Improved Birth Defects Surveillance

APORS continued its hybrid of passive case reporting as a starting point to identify potential birth defect cases. Cases within the APORS Birth Defects Surveillance (ABDS) system were electronically sent to regional field staff, who then performed reviews of the infants' medical charts, verified the presence of birth defects, eliminated false positives and collected additional diagnoses. In FY06, the abstractors reviewed 11,680 birth defects reported by hospitals. Many of these diagnoses are conditions associated with prematurity; APORS has created stringent rules that do not consider these birth defects. Abstractors, therefore, eliminated 3,284 diagnoses associated with prematurity and an additional 1,662 false positive diagnoses. This resulted in 6,734 verified, passively reported diagnoses. Abstractors clarified 541 diagnoses and added 7,193 diagnoses. As a result, 13,927 birth defects were verified, an increase of 66 percent over passive hospital reporting of diagnoses not associated with prematurity.

4.2.4 Birth Defects Prevention Activities

APORS staff began distributing birth defect prevention materials: bookmark, poster, and brochure. APORS staff distributed these and other prevention information to local health departments and at health conferences. An information booth was staffed at the Women's Health conference held in suburban Chicago. County neural tube defects surveillance data and risk factor information was provided to 10 high risk local health departments (Chicago and Cook, DeKalb, DuPage, Kane, Lake, Madison, McHenry, Peoria and Winnebago counties).

4.2.5 Linkages with Other Programs and Activities

- 4.2.5.1 Perinatal Programs.** APORS continued to identify infants for the Illinois Department of Human Services' perinatal management and high-risk infant tracking program. Approximately 10,000 infants were referred from local health department nurse visits. Physical and psychological development monitoring and counseling for parents are provided through the nurse visits. APORS also identified infants for the IDPH Division of Infectious Diseases' congenital syphilis and perinatal hepatitis B programs, which ensure that all infants with congenital syphilis and infants prenatally exposed to or diagnosed with a hepatitis B infection are offered services. Data on all infants born with cleft lip and/or palate were supplied to the Department's Division of Oral Health's craniofacial anomaly program to ensure these infants receive appropriate services.
- 4.2.5.2 Perinatal Health System of Illinois.** The Perinatal Health Statewide Quality Council serves in an advisory capacity to APORS. Neonatologists, perinatal center administrators and other professionals assist the program regarding medical aspects of adverse pregnancy outcome surveillance. The APORS manager serves on the council.
- 4.2.5.3 March of Dimes.** The March of Dimes is coordinating the Illinois Folic Acid Campaign to increase awareness that consumption of folic acid will prevent neural tube defects (NTDs). APORS is providing quarterly surveillance data on NTDs and other data reports to assist the March of Dimes in targeting its activities.
- 4.2.5.4 National Birth Defects Prevention Network (NBDPN).** APORS submitted data for the National Birth Defects Prevention Network's annual report. The registry manager served on the state data and annual conference committees, and was a speaker at the network's annual conference. The APORS epidemiologist served on the state data committee and presented a poster at the annual conference.
- 4.2.5.5 Perinatal Networks.** APORS maintained communications with the perinatal network administrators to facilitate hospital reporting of APORS cases. APORS staff sought guidance from the perinatal administrators in matters related to hospital training.

4.2.5.6 U.S. Centers for Disease Control and Prevention (CDC). APORS submitted quarterly reports on neural tube defects as part of CDC's and the National Birth Defects Prevention Network's efforts to monitor trends in the disease. APORS hosted a successful site visit in April. CDC highlighted Illinois' methods of enhancing passive case ascertainment at its regional birth defects meeting in May.

4.2.6 Quality Control Reports

4.2.6.1 Fornoff J. *Timeliness Study – Hospital Reports of Adverse Pregnancy Outcomes Reported in 2003 and 2004*. Quality Control Report Series 05:06, Illinois Department of Public Health, June 2006.

4.3 Goals for Fiscal Year 2007

Improve Casefinding

- Conduct training for hospital staff regarding case identification.
- Match APORS newborn cases with hospital discharge data to identify missed newborn cases.
- Match APORS newborn cases with Vital Records (VR) birth data to identify missed newborn cases.
- Match APORS cases with VR infant death data to identify birth defect cases.
- Perform active case verification with new casefinding by performing hospital chart review.

Improve Quality of APORS Data

- Evaluate the accuracy of hospital reporting in terms of timeliness and accuracy, provide hospital-specific feedback and use results to identify hospital training needs.
- Evaluate the quality of the active case verification process in terms of timeliness and accuracy, provide individual-specific feedback and use results to identify staff training needs.
- Geocode new APORS cases and increase the percentage of cases geocoded to the exact street level to 97 percent from the current 93 percent.

- Provide ongoing in-service training to hospitals that have been identified as problem reporters in terms of timeliness, accuracy or case completeness.

Improve Program Effectiveness

- Use APORS surveillance data for birth defects prevention.
- Use the University of Illinois at Chicago School of Public Health's assessment and action plan to make program improvements and to make regulatory changes that enhance birth defect surveillance.
- Produce statewide and county surveillance reports.
- Maintain linkages with key organizations, such as the Illinois perinatal networks, the Illinois Perinatal Statewide Quality Council, the Greater Illinois Chapter of the March of Dimes, the Illinois Folic Acid Campaign and the National Birth Defects Prevention Network.
- Implement a new data system for hospital-reported cases. The new system will connect with the APORS birth defects surveillance data system.

5. OCCUPATIONAL DISEASE REGISTRY

The Occupational Disease Registry (ODR) has three components: the Adult Blood Lead Registry (ABLR), the Census of Fatal Occupational Injuries (CFOI) and the Occupational Safety and Health Survey (OSH).

5.1 Adult Blood Lead Registry

ABLR collects data on cases of elevated blood lead levels of 25 micrograms per deciliter (mcg/dl) and above for adults 16 years of age and older and notifies federal enforcement agencies to trigger inspections and/or interventions. Currently, this program is funded through a purchase order for data with the U.S. Centers for Disease Control and Prevention (CDC). Due to funding limitations, no in-depth verification or quality checks are conducted.

5.1.1 Fiscal Year 2006 Accomplishments

- Received 67 percent of the ABLR laboratory reports electronically.
- Notified federal Occupational Safety and Health Administration (OSHA) within 10 days of any company found to have employees with blood lead levels above 60 micrograms per deciliter of blood.

- Notified OSHA quarterly of any company that had employees with elevated blood lead levels above 40 micrograms per deciliter of blood.
- ABLR data were sent to the CDC's National Institute for Occupational Safety and Health (NIOSH) on a quarterly basis.

5.1.2 Interventions Resulting from ABLR Notifications of Elevated Lead Results

ABLR reported to OSHA the names of 21 companies with employees who had blood lead levels greater than 40 micrograms per deciliter of blood. OSHA did not report a site evaluation in Illinois during FY06 because of ABLR referrals.

5.1.3 Goals for Fiscal Year 2007

- Receive more than two-thirds of the ABLR laboratory reports electronically.
- Notify OSHA within 10 days of any company found to have employees with blood levels above 60 micrograms per deciliter of blood.
- Notify OSHA quarterly of any company that has employees with elevated blood lead levels above 40 micrograms per deciliter of blood.
- Notify CDC's NIOSH on a quarterly basis of those cases that were entered into the registry.

5.2 Census of Fatal Occupational Injuries (CFOI)

The U.S. Bureau of Labor Statistics (BLS) developed the Census of Fatal Occupational Injuries (CFOI) as a cooperative venture between the states and the federal government to gather data about these events. The Illinois Department of Public Health has participated in CFOI since 1993. The data compiled by the CFOI program are published each year and contain information on the workers involved and the events surrounding each fatality.

5.2.1 Review and Evaluation of Fiscal Year 2006 Goals

- Published a summary report of the 2004 fatal occupational injury data in November 2005 (ERS 05:07).
- Provided information on fatal occupational injuries to the BLS, the funding source, no later than four months after the death.

5.2.2 Goals for Fiscal Year 2007

- Publish a summary report of the 2005 fatal occupational injury data by November 2005.
- Provide information on fatal occupational injuries to the BLS, no later than four months after the death.
- Meet the new deadlines for data completion set out by the BLS.

5.3 Occupational Safety and Health Survey (OSH)

The Occupational Safety and Health Survey (OSH) focuses on surveillance of non-fatal workplace injuries and illnesses. The Illinois OSH is supported through a cooperative agreement between the states and the U. S. Bureau of Labor Statistics. The Illinois data are pooled with that from other states to provide the total injury and illness rate for each industrial group at the national level. Because of Illinois' participation, the data are also published annually at the state level to give information on incidence rates for the type of injury, body part of the injury, the source of the injury and the event causing the injury.

5.3.1 Review and Evaluation of Fiscal Year 2006 Goals

- Submitted data files on all reported occupational injuries and illnesses of the surveyed companies to the U.S. Bureau of Labor Statistics (BLS).
- Published a summary report of the occupational injuries and illnesses data to enable safety organizations and companies to identify causes and to produce training programs aimed at preventing them (ERS 05:06 and ERS 06:04); and made summarized, but industry-specific, data available to companies and industrial groups.
- Collected, coded, and entered all 2004 data prior to BLS deadlines.

5.3.2 OSH Survey Process and Achievements for Fiscal Year 2006

In January 2005, BLS and ODR sent survey forms to 6,425 companies for 2004 data. OSH staff began receiving completed forms the following week with the highest volume arriving in mid-January. Six weeks after the initial mailing, receipt of reports had dropped off to approximately eight per day. A second request for data was sent to 3,352 non-responding companies on March 3, 2005. A third request, on April 24, 2005, went to 2,115 non-responding companies. In May 2005, non-responding companies were contacted by telephone to solicit data. Through staff

diligence, the overall response rate was 94 percent, significantly surpassing the BLS standard of 85 percent.

5.3.3 Goals for Fiscal Year 2007

- Continue all activities in FY06 and maintain the high standards achieved by the program.
- Meet the new deadlines assigned by BLS.

6. ENVIRONMENTAL PUBLIC HEALTH TRACKING

Environmental Public Health Tracking (EPHT) is the ongoing collection, integration, analysis and interpretation of data about environmental hazards, exposure to environmental hazards, and human health effects potentially related to exposure to environmental hazards. It includes dissemination of information learned from these data to federal, state and local agencies as well as to the public. The Illinois EPHT program was created in 2003 with federal funds; it is part of CDC's efforts to develop a national public health network that will 1) be standards-based; 2) allow direct electronic data reporting and linkage within and across health effect, exposure and hazard data; and 3) interoperate with other public health systems. Because of the program's focus on environmental hazards, exposure and their relationships with health outcomes, Illinois' EPHT is a natural extension of the IHHSR's original unfunded Hazardous Substances Registry.

6.1 Review and Evaluation of Fiscal Year 2006 Goals

- Staff examined and characterized available statewide data for asthma exacerbations.
- Staff identified and characterized sources of air-monitoring data for ozone and particulate matter.
- A report describing the compatibility of asthma exacerbation data with ozone and particulate matter measures was sent to CDC.
- The State Implementation Plan was sent to CDC in January 2006.

6.2 EPHT Progress and Achievements for Fiscal Year 2006

6.2.1 Geocoding Cancer and Birth Defects Data.

Population-based data for the Illinois State Cancer Registry and the Adverse Pregnancy Outcomes Reporting System were geocoded using an in-house software program (Map Marker 10© and Map Info Professional© Version 7.0).

The records were assigned geocodes using the North American Datum (NAD) 83 standard, which is the most recent available. NAD is the base set of coordinate readings used to assign latitude and longitude coordinates in the United States. The new standard reflects emerging knowledge about the shape of the earth and corrects for large numbers of surveying errors accumulated in the old datum (NAD27).

The process includes: address standardization; verification of ZIP code based on city; assignment of ZIP +4 based on address; assignment of census tract; assignment of block group; and assignment of latitude and longitude codes, including specificity level of the code or reason the record could not be coded.

The level of completeness for each geocode element varied little by year of diagnosis (see range in Table 6.2.1.1). A detailed quality assessment of the geocoding results for cancer data has been completed and will serve as a reference document for researchers using geocoded registry data.

Table 6.2.1.1 Percentage of IHHSR Reports with Complete Geocoding as of November 2005			
Range of Percentage Complete by Diagnosis Year			
	Average all years	Lowest	Highest
Cancer Reports (n=977,610 cases for diagnosis years 1986-2003)			
ZIP code	100.0	100.0	100.0
ZIP +4 code	92.6	91.8	93.0
Census Tract	97.3	96.4	98.1
Lat/Lon code ¹	99.1	98.5	99.4
address specific	89.0	86.9	90.1
centroid ZIP +4	0.7	0.6	0.9
centroid ZIP +2	2.1	1.9	2.9
centroid ZIP	7.2	5.4	9.5
APORS Reports (n= 261,274 cases for birth years 1989-2005)			
ZIP code	99.8	99.0	100.0
ZIP +4 code	94.3	92.5	96.0
Census Tract	98.7	97.2	99.4
Lat/Lon code ¹	98.7	97.2	99.4
address specific	93.0	91.5	94.4
centroid ZIP +4	1.3	0.7	1.7
centroid ZIP +2	1.8	1.3	3.8
centroid ZIP	2.7	1.5	4.4
¹ Latitude and longitude			

6.2.2 GPSI Intern

EPHT continued their use of a Graduate Public Service Intern (GPSI) through the University of Illinois at Springfield. The initial intern left to join the workforce after the first year but the program secured a qualified replacement. Projects completed this year included upgrading the data inventory, consolidating and providing documentation for non-community wells databases, and creating metadata for select public health datasets.

6.2.3 National Workgroups

Division staff continued participation in two national EPHT workgroups: Program Marketing and Outreach, and their Advocacy subgroup and the Systems and Network Development and their Geography and Locational Referencing subgroup.

The EPHT Project Coordinator is active in the Asthma workgroup of the State Environmental Health Indicators Collaborative, co-sponsored by CDC and the Council of State and Territorial Epidemiologists.

6.2.4 Cost Extension Application

EPHT submitted a five-year continuation application to CDC, which, if approved, would provide a new funding cycle from August 1, 2006, until July 31, 2011.

6.2.5 Collaborative Efforts

Building upon previous collaboration with the Indiana neonatologist, EPHT was able to provide projects for two medical/MPH students from the University of Illinois, College of Medicine at Peoria. They examined atrazine in Illinois water sources and possible associations with adverse pregnancy outcomes and possible associations between neural tube defects in nitrates in Illinois water sources.

EPHT staff worked with the Waste Management and Research Center to develop their funding proposal to investigate possible associations of agrochemicals and reproductive outcomes in Illinois. This in turn led to collaborative efforts with Dr. Mohanty, Southern Illinois University at Carbondale, and Dr. Wartenberg, University of Medicine and Dentistry of New Jersey, to aid them with project proposals. If either of them is funded, EPHT and the Division of Epidemiology will be involved.

6.3 Goals for Fiscal Year 2007

- We have applied for the next cycle of federal funding in order to continue with the implementation of the Environmental Public Health Tracking program. Specific goals and objectives will be determined after the new funding is secured.

7. CLUSTER INQUIRIES AND EVALUATIONS

7.1 Review and Evaluation of Fiscal Year 2006 Goals

- Responded to all inquiries with information and educational materials regarding cancer diseases.
- Completed all cluster evaluations within six months of the written request.

7.2 Fiscal Year 2006 Accomplishments

In FY06, the Department received 104 calls concerning perceived cancer excesses. The response protocol requires staff to first discuss general epidemiologic information about cancer with the caller, explain the cluster protocol and expected outcomes, and send educational materials when appropriate. For 28 of these calls, previous cancer cluster evaluations were already available to answer the concerns. Staff used published cancer rates by county, epidemiologic reports and data from the public data files (n=60) or general information about the frequency of cancer or causes of cancer to help address the callers' concerns.

Work that was in progress at the end of FY05 included seven ZIP code areas around Blue Island because of one request. Evaluations were scheduled to be completed by September 2006 but were completed ahead of time in June 2006.

In a cluster evaluation, the study areas are defined by geography, usually a county or ZIP code area. The number of cancer cases observed in the study area is compared with the number of cancer cases expected for the population of that area. The expected numbers are derived from the age-, sex- and race-specific incidence rates in an area of Illinois with a similar population density as the study area. Applying appropriate statistical methods, the data are compared to see whether the observed incidence is higher than the expected. All reports are public documents and are available on request. The seven completed evaluations are summarized in the table below.

Table 7.2.1 Cancer Cluster Evaluations Completed in Fiscal Year 2006

Name (ZIP)	Cancer Type	Obs.^a	Exp.^b	Years of Study	Comment
Blue Island (60406)	Total races/sexes white males white females black males black females all other races M-F	473 211 183 30 40 9 ^c	499 183 192 44 46 34	1998-2002	For other races, the observed number of cases was significantly less than the expected number of cases.
Midlothian/Crestwood (60445)	Total races/sexes white males white females black males black females all other races M-F	660 304 322 13 13 8	656 271 342 15 17 10	1998-2002	
Palos Height (60463)	Total races/sexes white males white females all other races M-F (numbers for blacks included in total)	525 272 245 6	527 258 263 6	1998-2002	
Posen (60469)	Total races/sexes white males kidney white females (numbers for blacks and other races included in total)	112 61 6 ^c 48	103 46 2 47	1998-2002	Observed numbers of kidney cancers were not different from the expected numbers for any other race/sex group. For kidney in white males 5/6 cases had a known tobacco status with 3/5 (60%) having a positive history of tobacco use.
Chicago-Beverly area (60620)	Total races/sexes white males colorectal lung and bronchus all other sites white females breast – inv. uterus black males black females breast- <i>in situ</i> all other races M-F	2,452 82 ^c 13 ^c 16 ^c 13 ^c 89 ^c 29 ^c 9 ^c 1,127 1,147 78 ^c 7	2,350 41 5 6 4 45 13 3 1,143 1,108 54 13	1998-2002	Among white males, the tobacco status was known for 10/13, colorectal with 5/10 (50%) having a positive history of tobacco use and known for 10/16, lung with 10/10 (100%) having a positive history of tobacco use. Among black females, 19.1% of the breast cancer cases were diagnosed in the earliest stage (<i>in situ</i>) as compared with Cook County with only 14.8%. This is a positive indicator of good screening practice.

Table 7.2.1 Cancer Cluster Evaluations Completed in Fiscal Year 2006

Table 7.2.1 Cancer Cluster Evaluations Completed in Fiscal Year 2006					
Chicago-Mt. Greenwood area (60655)	Total races/sexes white males white females black males black females (numbers for other races included in total)	769 346 392 12 15	736 331 375 11 12	1998-2002	
Calumet Park (60827)	Total races/sexes white males colorectal white females colorectal black males prostate black females (numbers for other races included in total)	629 ^c 94 21 ^c 103 ^c 21 ^c 208 77 ^c 221	534 73 10 73 10 177 54 202	1998-2002	For colorectal cancers in white males 14/21 had known tobacco status with 10/14 (71%) having a positive history of tobacco use and in white females, 16/21 had, a known tobacco status with 1/16 (6%) having a positive history of tobacco use. Among black males, 72.7% of the prostate cancer cases were diagnosed in an early stage (local) as compared with Cook County with only 70.3%. This is a positive indicator of good screening practice.
All areas combined (60406, 60445, 60463, 60469, 60620, 60655, 60827)	All Childhood (aged 0-14) Leukemias Lymphomas Hodgkin's Brain tumor Wilms' tumor Rhabdomyosarcoma Neuroblastoma	37 12 4 1 7 4 1 2	38 12 4 2 7 2 1 2	1998-2002	All ZIP code areas were combined for childhood cancers. Numbers too small to calculate meaningful expected numbers for individual ZIP code areas.
^a Observed number of cases. ^b Expected numbers are based on the age-, sex- and race-specific incidence rates in an area of Illinois with a similar population density as the study area. ^c Observed number is statistically different from the expected number at p<.01					

7.3 Fiscal Year 2007 Objectives

- Respond to all inquiries with information and educational materials regarding cancer diseases.
- Complete cluster evaluations within 12 months of the written request.

8. RESEARCH PROGRAM

The research section of the Illinois Health and Hazardous Substance Registry represents a crucial link between data collection and data dissemination and between raw data and

information. Through various formats, registry data were summarized, tabulated, analyzed, and presented to policy makers, health professionals and the public.

8.1 Fiscal Year 2006 Major Accomplishments

8.1.1 Provision of Epidemiologic Support to Department-wide Activities

Division staff continued to participate in the Department's Data Release and Research Committee, the Reduction of Health Disparity team, the Committee on Data Standards, the Committee on Public Use Files, the Cervical Cancer Task Force, Reform and Renewal Public Health Team 7: Using Data for Public Health Decision making, Illinois Violent Death Reporting System Advisory Committee. Five staff have served on these committees in various capacities.

8.1.2 Technical Assistance

Technical assistance in the areas of creating a PSA-6C option for hiring epidemiologists/statisticians, data confidentiality review, FOIA requests, SAS programming, data analysis and interpretation, data de-duplication, surveillance system evaluation, quality control, and research data request have been provided by Division researchers to various IDPH offices and divisions. Division researchers were frequently called upon by the Director's office and other IDPH programs for expertise on different technical and research issues.

8.1.3 Special Projects

Since 2004, Division staffs have participated in the CDC-led Cancer Patterns of Care (POC) study, which involved eight other states in the United States. A number of manuscripts were being drafted during FY06 by the POC group to publish the study finding. Some publications are expected during FY07.

8.2 Scientific Publications in Fiscal Year 2006

The following articles reported in the previous annual reports as being prepared or submitted, have been published or accepted for publication.

8.2.1 Leonard DR, Rairden RL, Beccue B, Shen T. Attempts to Minimize Manual Review During Registry Duplication. *J Reg Management* 33(1): 17-23. 2006

8.2.2 Howe HL, Lake A, Shen T. Method to Access Identifiability in Electronic Data Files. *Am J. Epidemiology* (accepted for publication)

8.3 Other Reports or Publications That Used Registry Data

- 8.3.1** Birth Defects Surveillance Data from Selected States, 1998-2002. *Birth Defects Research Part A: Clinical and molecular*. *Teratology*; 73(10):758-853.
- 8.3.2** Maternal and Infant Health Data available through an online interactive query on the March of Dimes Perinatal Statistics Web site at <http://www.marchofdimes.com/peristats/>.
- 8.3.3** Canfield MA, Collins JS, Botto LD, Williams LJ, Mai CT, Kirby RS, Pearson K, Devine O, Mulinare J. Changes in the Birth Prevalence of Selected Birth Defects after Grain Fortification with Folic Acid in the United States: Finding from a Multi-State Population-Based Study. *Birth Defects Research Part A: Clinical and Molecular Teratology*. 73(10):679-689.
- 8.3.4** Williams LJ, Rasmussen SA, Flores A, Kirby RS, Edmonds LD. Decline in the Prevalence of Spina Bifida and Anencephaly by Race/Ethnicity: 1995-2002. *Pediatrics*. 2005; 116; 580-586.
- 8.3.5** Bol K, Collins JS, Kirby RS. Survival of Infants with Neural Tube Defects in the Presence of Folic Acid Fortification. *Pediatrics* 2006; 117; 803-813.
- 8.3.6** Hecht M. Atrazine in Illinois water sources and adverse pregnancy outcomes. Master's Paper for Public Health Degree in Community Health Sciences at the School of Public Health, University of Illinois at Chicago.
- 8.3.7** Wang R. Neural Tube Defects and Water Nitrate Levels in Illinois: An Association Explored. Master's Paper for Public Health Degree in Community Health Sciences at the School of Public Health, University of Illinois at Chicago.
- 8.3.8** U.S. Cancer Statistics Working Group. *United States Cancer Statistics, 2002 Incidence and Mortality*, Atlanta Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2004.
- 8.3.9** Ellison JR, Wu XC, McLaughlin CC, Lake A, Firth R, Cormier M, Leonfellner S, Carozza S, Roney D, Howe HL, Kosary C (eds). *Cancer in North America, 1999-2003. Volume One: Incidence*. Springfield, Ill.: North American Association of Central Cancer Registries, Inc. May 2006.

- 8.3.10** Ellison JH, Wu XC, McLaughlin CC, Lake A, Firth R, Cormier M, Leonfellner S, Carozza S, Roney D, Howe HL, Kosary C (eds). *Cancer in North America, 1999-2003. Volume Two: Mortality*. Springfield, Ill.: North American Association of Central Cancer Registries, Inc. May 2006.
- 8.3.11** Ellison JH, Wu XC, McLaughlin CC, Lake A, Firth R, Cormier M, Leonfellner S, Carozza S, Roney D, Howe HL, Kosary C (eds). *Cancer in North America, 1999-2003 Volume Three: NAACCR Combined Incidence*. Springfield, Ill.: North American Association of Central Cancer Registries, Inc. May 2006.
- 8.3.12** Ellison JH, Wu XC, McLaughlin CC, Lake A, Firth R, Cormier M, Leonfellner S, Carozza S, Roney D, Howe HL, Kosary C (eds). *Cancer in North America, 1999-2003. Volume Four: Cancer Incidence in U.S. Hispanic/Latino Populations*. Springfield, Ill.: North American Association of Central Cancer Registries, Inc. May 2006.
- 8.3.13** Howe HL, Jamison M, Havener L, Chen VS, Ries L, et al. Site-specific Comparison of Summary Stage 1977 and Summary Stage 2000 Coding. Springfield, Ill.: North American Association of Central Cancer Registries, Inc. November 2005.
- 8.3.14** Howe HL, Weinstein R, Alvi R, Kohler B, Hotes J. Women with multiple primary breast cancers diagnosed within a five year period, 1994-1998. *Breast Cancer Research and Treatment* 2005;90(3):223-232.
- 8.3.15** Wu XC, Groves FD, McLaughlin CC, Jemal A, Martin JH, Chen VW. Cancer Incidence patterns among adolescents and young adults in selected U.S. areas. *Cancer Causes and Control* 2005;16(3):309-320.
- 8.3.16** McLaughlin CC, Wu XC, Jemal A, Martin JH, Roche LM, Chen VS. Incidence of noncutaneous melanomas in the United States. *Cancer* 2005;103:1000-7.
- 8.3.17** Joslyn SA, Foote ML, Nasser K, Coughlin SS, Howe HL. Racial and ethnic disparities in breast cancer rates by age: NAACCR breast cancer project. *Breast Cancer Research and Treatment* 2005;001:1-9.
- 8.3.18** Jemal A, Ware E, Wu XC, Martin JH, McLaughlin CC, Thun MJ. Geographic patterns of prostate cancer mortality and variations in access to medical care in the United States. *Cancer Epidemiol Biomarkers Prev* 2005;14:590-5.
- 8.3.19** Adelman AS, McLaughlin CC, Wu XC, Chen VW, Groves FD. Urbanizations and incidence of acute lymphocytic leukemia (ALL) among United States children ages 0-4. *Br J Cancer* 2005;92:2084-2088.

- 8.3.20** Wingo PA, Howe HL, Thun MJ, Ballard-Barbash R, Ward E, Brown ML, Sylvester J, Friedell GH, Alley L, Rowland JH, Edwards BK. A national framework for cancer surveillances in the United States. *Cancer Causes and Control* 2005;16:151-170.
- 8.3.21** Edwards BK, Brown ML, Wingo PA, Howe HL, Ward E, Ries LA, Schrag D, Jamison PM, Jemal A, Wu XC, Friedman C, Harlan L, Warren J, Anderson RN, Pickle LW. Annual report to the nation on the status of cancer, 1975-2002, featuring population-based trends in cancer treatment. *J Natl Cancer Inst* Oct 2005;97(1):1407-27.
- 8.3.22** Centers for Disease Control and Prevention State Cancer Profiles. Interactive query available at <http://statecancerprofiles.cancer.gov/>.
- 8.3.23** U.S. Department of Labor, Bureau of Labor Statistics. Workplace Injury and Illness Summary, 2004. Online reports and interactive query available at www.bls.gov/iif/home.htm. November 2005.
- 8.3.24** U.S. Department of Labor, Bureau of Labor Statistics. Lost-Worktime Injuries and Illnesses Characteristics and Resulting Time Away from Work, 2004. Online reports and interactive query available at www.bls.gov/iif/home.htm. December 2005.
- 8.3.25** U.S. Department of Labor, Bureau of Labor Statistics. Census of Fatal Occupational Injuries Summary, 2004. Online reports and interactive query available at www.bls.gov/iif/oshcfoi1.htm. August 2005.

8.4 Epidemiologic Report Series

The following reports were released in the Department's Epidemiologic Report Series; all reports are available to the public upon request.

- 8.4.1** Qiao B, Evans L, Shen T. Examining Potential Relationships between Cancer Incidence and Ground Water Contamination with Trichloroethylene (TCE) and Tetrachloroethylene (PCE) in Lisle and Downers Grove, DuPage County, Illinois. Epidemiologic Report Series 05:02. Springfield, Ill.: Illinois Department of Public Health, September 2005.
- 8.4.2** Qiao B, Shen T, Snodgrass JL. Illinois Cancer Statistics Review, 1986-2002. Epidemiologic Report Series 05:03 Springfield, Ill.: Illinois Department of Public Health, July 2005.

- 8.4.3** Qiao B, Shen T, Snodgrass JL. Illinois County Cancer Statistics Review, Incidence, 1998-2002. Epidemiologic Report Series 05:04 Springfield, Ill.: Illinois Department of Public Health, July 2005.
- 8.4.4** Fornoff JE, Easton K, Egler T, Shen T. Trends in the Prevalence of Birth Defects in Illinois and Chicago 1989-2003. Epidemiologic Report Series 05:05 Springfield, Ill.: Illinois Department of Public Health, September 2005.
- 8.4.5** Maxfield R, Shen T. Survey of Nonfatal Workplace Injuries and Illnesses, Illinois, 2003. Epidemiologic Report Series 05:06 Springfield, Ill.: Illinois Department of Public Health, July 2005.
- 8.4.6** Wamack J, Maxfield R, Shen T. Census of Fatal Occupational Injuries, Illinois, 2004. Epidemiologic Report Series 05:07 Springfield, Ill.: Illinois Department of Public Health, November 2005.
- 8.4.7** Fornoff JE, Egler T, Shen T. Birth Defects and Other Adverse Pregnancy Outcomes in Illinois 1999-2003. Epidemiologic Report Series 05:08 Springfield, Ill.: Illinois Department of Public Health, September 2005.
- 8.4.8** Qiao B, Lehnherr M, Shen T. Pediatric Cancer Incidence in the Vicinity of Nuclear Power Plant in Illinois. Epidemiologic Report Series 06:01 Springfield, Ill.: Illinois Department of Public Health, January 2006.
- 8.4.9** Lehnherr ML, Shen T. Illinois County cancer Statistics Review Incidence, 199-2003. Epidemiologic Report Series 06:02. Springfield, Ill.: Illinois Department of Public Health, May 2006.
- 8.4.10** Lehnherr ML, Shen T. Illinois Cancer Statistics Review 1986-2003. Epidemiologic Report Series 06:03. Springfield, Ill.: Illinois Department of Public Health, June 2006.
- 8.4.11** Maxfield R, Scott B. Survey of Nonfatal Workplace injuries and Illnesses, Illinois, 2004. Epidemiologic Report Series 06:04. Springfield, Ill.: Illinois Department of Public Health, July 2006.
- 8.4.12** Maxfield R, Shen T. Survey of Occupations with Higher Risk of Work-related Injuries, Illinois, 2003. Epidemiologic Report Series 06:05. Springfield, Ill.: Illinois Department of Public Health, February 2006.

8.5 Fiscal Year 2006 Presentations by Division Staff

Title	Event	Date
<i>Generating Public Use Microdata Files</i>	IDPH Data Release and Research Committee (DRRC) (Springfield)	July 2005
<i>Data Re-identification Issues</i>	IDPH DRRC (Springfield)	July 2005
<i>ISCR-CTR Prep Workshop</i> (in collaboration with ACS, CRI and CACRA)	American Cancer Society Building (Chicago)	July 2005
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	University of Chicago Hospitals (Chicago)	July 2005
<i>ISCR Certified Tumor Registrar exam preparation course</i>	American Cancer Society Building (Chicago)	July 2005
<i>ISCR Complex Morphologies and Collaborative Staging</i>	Central Office (Springfield)	August 2005
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	St. James Hospital and Health Centers (Olympia Fields), Rush North Shore Medical Center (Skokie), Christ Hospital and Medical Center (Oak Lawn), University of Chicago Hospitals (Chicago)	August 2005
<i>ISCR-Cancer Surveillance and Registration</i>	University of Illinois at Chicago School of Public Health Students (Chicago)	August 2005
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	Alton Memorial Hospital and St. Anthony's Health Center (Alton); St. Elizabeth Hospital and Memorial Hospital(Belleville); Touchette Regional Hospital (Centerville)	September 2005
<i>ISCR - Intranet Portal Website</i>	Cancer Registrars of Illinois (CRI) Annual Meeting (Peoria)	September 2005
<i>EPHT - Findings of the DuPage Demonstration Project</i>	Environmental Public Health Tracking – Planning Consortium, WebEx Meeting (Springfield)	September 2005
<i>ISCR-Software Update and Staging</i>	Central Office (Springfield)	September 2005

Title	Event	Date
<i>ISCR-Software Updates and Staging of Ovarian Cancer</i>	Central Office (Springfield)	September 2005
<i>Reporting of Race/Ethnicity by IDPH Programs</i>	Central Office (Springfield)	September 2005
<i>ISCR-Cancer Registry 101 (in collaboration with CRI, ACS and CACRA)</i>	American Cancer Society Building (Chicago)	October 2005
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	Evanston Hospital (Evanston)	October 2005
<i>ISCR-Basic Training Workshop</i>	LaSalle Building (Chicago)	October 2005
<i>ISCR-Advanced Staging Workshop</i>	Methodist Medical Center (Peoria), Memorial Hospital (Alton)	October 2005
<i>ISCR-Advanced Staging Workshop</i>	LaSalle Building (Chicago)	October 2005
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	Good Samaritan Hospital (Downers Grove)	October 2005
<i>ISCR-Basic Cancer Data Reporting: Abstracting and Editing</i>	LaSalle Building (Chicago), Gottlieb Memorial Hospital (Melrose Park), Good Samaritan Regional Health Center (Mt. Vernon), Penta Building (Springfield)	November 2005
<i>ISCR-Advanced Staging Workshop</i>	Delnor Community Hospital (Geneva)	November 2005
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	Alexian Brothers Medical Center (Elk Grove Village), BroMenn Regional Center (Normal), OSF St. Francis Medical Center (Peoria), Swedish American Hospital (Rockford), Victory Memorial Hospital (Waukegan), Decatur Memorial (Decatur)	November 2005

Title	Event	Date
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	Children's Hospital of Milwaukee (Milwaukee, WI); St. Mary's Health Care Services (Evansville, IN); Terra Haute Regional Hospital and Union Hospital (Terra Haute, IN), Women's Hospital (Newburgh, IN)	November 2005
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	University of Illinois at Chicago Medical Center and Saint Mary of Nazareth (Chicago)	December 2005
<i>ISCR-Basic Cancer Data Reporting: Abstracting and Editing</i>	Community Hospital (Ottawa)	December 2005
<i>ISCR-Collaborative Stage Lung and Radiation Overview</i>	ISCR staff in-service (Springfield)	December 2005
<i>ISCR-Basic Cancer Data Reporting: Abstracting and Editing</i>	Penta Building (Springfield)	December 2005
<i>ISCR-Advanced Staging Workshop</i>	LaSalle Building (Chicago)	December 2005
<i>ISCR-Basic Cancer Data Reporting: Abstracting and Editing</i>	Belleville Memorial Hospital (Belleville)	January 2006
<i>ISCR-Certified Tumor Registrars exam preparation course</i>	American Cancer Society (Chicago)	January 2006
<i>ISCR-Cancer Registry Lecture to Health Information Management class</i>	University of Illinois (Chicago)	January 2006
<i>ISCR-Systemic Treatment and Collaborative Staging of Melanoma</i>	ISCR staff in-service (Springfield)	February 2006
<i>APORS-Exploring Analyses Available Using Newly Geocoded Birth Defect Data</i>	National Birth Defects Prevention Network (Arlington, VA)	February 2006
<i>ISCR-ACS Annual Cancer Registry Workshop</i>	Decatur Memorial Hospital (Decatur)	March 2006
<i>ISCR-Cancer Registry Lecture to Health Information Management class</i>	Southern Illinois Collegiate Cooperative (Herrin)	March 2006
<i>ISCR-Advanced Staging Workshop</i>	Swedish Covenant Hospital (Chicago)	March 2006

Title	Event	Date
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	Northwestern Community Hospital (Arlington Heights), GlenOaks Hospital (Glendale Heights)	March 2006
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	Provena Mercy Center and Rush-Copley Medical Center (Aurora); Resurrection Medical Center, Rush University Medical Center, St. Mary of Nazareth, Trinity Hospital and University of Chicago (Chicago); Evanston Hospital (Evanston); Highland Park Hospital (Highland Park); Provena St. Mary's Hospital (Kankakee)	April 2006
<i>APORS-Targeting areas with increased prevalence of neural tube defects</i>	Illinois GIS Association meeting (Springfield)	April 2006
<i>APORS-Case Identification and Completion of Reporting Forms</i> (in-service training)	Good Samaritan Regional Center (Mt. Vernon), Heartland Regional (Marion), St. Mary's Hospital (Centralia), Memorial Hospital (Carbondale), Illinois Masonic Medical Center and University of Chicago (Chicago)	May 2006
<i>ISCR-Enhancing Casefinding at the Central Cancer Registry through Pathology and Reference Lab Reporting</i>	National Cancer Registrars Association Annual Meeting (Arlington, VA)	May 2006
<i>ISCR-2006 Standards Update and Collaborative Staging of Lymphoma</i>	ISCR staff in-service (Springfield)	May 2006
<i>ISCR-2006 Collaborative Staging and ISCR Updates Advanced Workshop</i>	Peoria Regional Office (Peoria), Trinity Hospital (Moline), Lake Forest Hospital (Lake Forest); Fairfield Memorial Hospital (Fairfield)	May 2006
<i>APORS-Trends in Spina Bifida Prevalence</i>	Spina Bifida Symposium – Northwestern University School of Medicine (Chicago)	May 2006
<i>ISCR-Multiple Primary/Multiple Histology Rules</i>	Chicago Area Cancer Registries (CACRA) meeting, Morton Arboretum (Lisle)	June 2006

Title	Event	Date
<i>ISCR-2006 Collaborative Staging and ISCR Updates Advanced Workshop</i>	Thompson Center (Chicago)-two sessions, Anderson Hospital (Maryville)	June 2006
<i>APORS-Case Identification and Completion of Reporting Forms (in-service training)</i>	Provena St. Joseph Medical Center (Joliet), Silver Cross Hospital (Joliet), South Suburban Hospital (Hazel Crest)	June 2006
<i>ISCR-2006 Collaborative Staging and ISCR Updates Advanced Workshop</i>	JR Thompson Center (Chicago)	June 2006

8.6 Research Data and Collaborations

Principal Investigator (Affiliation)	Title	Date	Funding Source
Suzan Charmichael March of Dimes/CA Birth Defects Monitoring Program	Neural Tube Defect (NTD) prevalence before versus after folic acid fortification	6/23/06	
Kyle Garner Bureau of Performance Support Services, Illinois Department of Human Services	African-American women delivering very low birth weight infants in selected areas of Chicago	5/18/06	
Susan Helm Department of Surgery SIU School of Medicine	Number of cleft lip, cleft palate, and limb anomalies in 2003 and 2004; for Illinois, DuPage County, Cook County, and the rest of Illinois	5/10/06	
Laura Williams, CDC Lisa Dye M.Ed, March of Dimes, Illinois Chapter	CDC Rapid Ascertainment of Neural Tube Defects by quarter (three only because dates were shifted)	8/23/05 1/10/06 3/28/06	CDC March of Dimes
Veronica Arboleda Coordinator of Program Services and Illinois Folic Acid Council	Neural Tube Defect numbers and rates by county	3/28/06	March of Dimes
Veronica Arboleda Coordinator of Program Services and Illinois Folic Acid Council	How to target an Neural Tube Defect-folic acid education campaign to get most impact	8/26/05	March of Dimes

Principal Investigator (Affiliation)	Title	Date	Funding Source
Gladys Nash, R.N. Case Manager, High Risk OB University of Chicago Hospitals	Number of infant deaths before discharge and number of fetal deaths reported by University of Chicago hospitals	3/28/06	
Beverly English Interim Bureau Chief, Maternal-Infant Health Illinois Department of Human Services	Number of APORS cases referred to the High-Risk Infant Follow-up Program in 2003-2005	3/6/06	
Beverly English Interim Bureau Chief, Maternal-Infant Health Illinois Department of Human Services	Information about full-term infants with various conditions; number of births; term births, very low birth weight births, low birth weight births; for Illinois and four community areas	11/8/05	
Craig Conover Division of Infectious Diseases, Illinois Department of Public Health	Match Group B Streptococcus infections in Division of Infectious Diseases and APORS, 2000-2004 births.	2/6/06	
Mary Marcano, PHN III Chicago Department of Public Health	Rates of NTDs by community area. 1998-2002	12/20/05	
Francelle Wax Campaign Assistant, Physicians Committee for Responsible Medicine	Prevalence data for 1989-2002 for major birth defects for their advocacy program	11/29/05	
Jan Weber Supervisor, Maternal Child Health Services McLean County Health Department	Demographics of children of McLean County with transposed great arteries born between 2000 and 2003	10/5/05	
Jan Weber Supervisor, Maternal Child Health Services McLean County Health Department	Maternal and Paternal age (mean, median, mode) for Patent Ductus Arteriosus cases	10/18/05	
Martha McDermott, Director Planning & Business Development Provena Saint Joseph Medical Center	Rates of births with birth-weight <1000g for 2003, for the hospital service area (defined by ZIP codes).	7/26/05	
Kathy Ritger Division of Infectious Diseases, IDPH	Chlamydia cases in Illinois by year	7/18/05	

Principal Investigator (Affiliation)	Title	Date	Funding Source
Dr. Paul Winchester Director of Neonatology Indiana University School of Medicine	Deliveries and NTDs by month and year of conception	11/16/05	
Alice Studinski IDPH Division of Infectious Diseases	Timeliness and completeness of congenital syphilis reporting	3/29/06	
Katrina Armstrong, M.D., M.S.C.E., University of Pennsylvania	Segregation and Racial Disparities in Prostate Cancer	Ongoing 10/29/04	NCI
Lillian Pezzin, Ph.D., J.D., Medical College of Wisconsin	Incident Breast Cancer	Ongoing 02/18/05)	NIH/NCI
Monica Peek, M.D., M.P.H., Rush University Medical Center	County Sponsored Mobile Mammography Van Services for Low-Income Women	Ongoing 03/03/05	
Luc Anselin, Ph.D., University of Illinois at Urbana-Champaign	Cancer Exploratory Spatial Data Analysis and Spatial Statistics	Ongoing 05/24/05	ATPM/CDC
Laura Rogers, M.D., M.P.H., Southern Illinois University School of Medicine	Exercise and Rural Breast Cancer Survivors (State-Wide)	Ongoing 05/31/05	NCI
Dick Warnecke, Ph.D., University of Illinois at Chicago	Neighborhood and Individual Effects on Stage at Diagnosis	Ongoing RCA 11/04	NCI
Frank Groves, M.D., M.P.H., University of Louisville	Birth Characteristics and Risk of Childhood Acute Lymphoblastic Leukemia in Illinois	Ongoing 06/05	University of Louisville Departmental Research Funds
Robert Biggar, M.D., National Cancer Institute	National AIDS/Cancer Match Registry Project	Pending 01/06	NCI/NIH
Sally Urwin, Chicago Women's Interagency HIV Study (WIHS)	Women's Interagency HIV Study	Ongoing 03/06	NIH/NIAID
Juliana Mendes, M.P.H., University of Illinois at Chicago	A Surveillance of Brain Cancer and Leukemia in Chicago	Pending Application 3/06	

Principal Investigator (Affiliation)	Title	Date	Funding Source
Fahui Wang, Ph.,D., Northern Illinois University	Spatial Clusters of Late-Stage Cancers in Illinois and Association with Healthcare Access	Pending Application 5/06	NIH
Robert Greenlee Marshfield Clinic	Quality and Correction of Time Trend Estimates in the Presence of Missing Data in Cancer in North America (CINA) Deluxe	March 2006	
Robert Greenlee Marshfield Clinic	Descriptive Epidemiology of Invasive Primary Cardiac Tumors	January 2006	
Jeannette Jackson-Thompson Missouri Cancer Registry	Geography of Second Primary Breast Cancer	January 2006	
Lisa Paddock New Jersey Cancer Registry	Cutaneous malignant melanoma: Differences in epidemiology between U.S. adults and children, 1995-2002	January 2006	
Bin Huang, Ph.D. National Cancer Institute	Cancer Incidence Disparities in Appalachia and within Appalachian sub-Regions	December 2005	
Linda Pickle, Ph.D. National Cancer Institute	Spatio-temporal estimation of cancer incidence in all U.S. states for 1995-2006	December 2005	
Dr. Francis Boscoe	Solar Radiation and Cancer Incidence and Mortality in North America	November 2005	
Jack Finch Colorado Cancer Registry	Age-adjusted cancer incidence of liver and intrahepatic bile duct cancer by race and ethnicity	August 2005	
Carol Smigal and Ahmedin Jemal American Cancer Society	Geographic variations in breast cancer incidence in the United States	July 2005	
NOTE: Following are definitions of acronyms used in the above table: American Cancer Society (ACS), U.S. Centers for Disease Control and Prevention (CDC), National Cancer Institute (NCI), National Institutes of Health (NIH), and Association of Teachers of Preventive Medicine (ATPM)			

9. GRANTS

The table below summarizes the division grant awards for FY2006:

Grant	Agency	Status
Occupational and Health Survey in Illinois (continuation)	BLS	Funded 08/05
Census of Fatal Occupational Injuries in Illinois (continuation)	BLS	Funded 08/05
Adult Blood Lead Epidemiology and Surveillance (continuation)	CDC	Funded 07/05
Cooperative Agreements for the Development of State-Based Birth Defects Surveillance Programs and the Use of Surveillance Data for Public Health Programs (continuation)	CDC	Funded 07/05
Perinatal Hepatitis B Program (submitted by IDPH, Division of Infectious Disease) (continuation)	CDC	Funded 01/06
National Cancer Prevention and Control Program-National Program of Cancer Care (continuation)	CDC	Funded 07/05
National Environmental Public Health Tracking Program (extension of year three for additional 10 months)	CDC	Funded 09/05
NOTE: Full titles of acronyms used in the above table are U.S. Centers for Disease Control and Prevention (CDC), Bureau of Labor Statistics (BLS), and Illinois Department of Public Health (IDPH).		

9.1 Funded Grants

The Division of Epidemiologic Studies received a total of \$2,324,757 in grant awards in fiscal year 2006. This is a 15 percent decrease from FY05 and is representative of federal budget cuts.

9.1.1 Occupational and Health Survey in Illinois

The Department received \$124,500 in August 2005 from the U.S. Bureau of Labor Statistics to support the eighth year of the Occupational and Health Survey (OSH) in Illinois. This project is described in Section 5.

9.1.2 Census of Fatal Occupational Injuries in Illinois

The Department received \$75,500 in August 2005 from the U.S. Bureau of Labor Statistics to support the 14th year of the Census of Fatal Occupational Injuries (CFOI) in Illinois. This project is described in Section 5.

9.1.3 Adult Blood Lead Epidemiology and Surveillance

In July 2005, CDC contracted with the Department to provide quarterly data to the CDC, Adult Blood Lead Epidemiology, and Surveillance program. The Department received \$21,440 to provide the data for the fifth year of this agreement. The progress for this project is described in Section 5.

9.1.4 Improvement of Birth Defects Surveillance Programs.

In July 2005, the Department was awarded \$180,000 from CDC for year three of a new five-year project period to evaluate, improve and expand the state birth defects surveillance program (APORS). The progress for this project is described in Section 4.

9.1.5 Perinatal Hepatitis B Program

The division received \$6,630 in January 2006 to continue expansion of APORS surveillance and data collection to include perinatal hepatitis B and to develop a tracking system to identify newborn infants requiring follow-up immunization services. The progress for this project is described in Section 4.

9.1.6 National Cancer Prevention and Control Program

In July 2005, CDC awarded the Department \$6.9 million in funding for the fourth year of the National Cancer Prevention and Control Program. This grant combines three previous separate grants: the National Breast and Cervical Cancer Early Detection Program, the National Comprehensive Cancer Control Program and the National Program of Cancer Registries (NPCR). The division received \$1,465,456 for the NPCR component, which is in its 11th year. NPCR continues to focus on four aspects of the existing program: achieve 95 percent completeness of reporting; expand the quality control program; redesign the database in a PC environment; and collect, code and computerize treatment data and occupation and industry information. The program for this project is described in Section 3.

9.1.7 National Environmental Public Health Tracking Program

In September 2005, the Department was awarded \$514,962 of additional funds by CDC for a 10-month extension of year three to establish an enhanced environmental public health tracking system in Illinois. The division's share was \$448,231 with the remainder going to the Department's Division of Environmental Health. Details about the expanded activities are in Section 6

10. CANCER REPORTING FACILITIES THAT HAVE NOT COMPLETED REPORTING FOR THE 2005 YEAR BY JULY 25, 2006.

FACILITY NAME	CITY
25 East Same Day Surgery	Chicago
Abraham Lincoln Memorial Hospital	Lincoln
Advocate Illinois Masonic Medical Center	Chicago
Altman Dermatology Associates	Arlington Heights
Anderson Hospital	Maryville
C G H Medical Center	Sterling
Carlinville Area Hospital	Carlinville
Center for Dermatology/Skin Cancer Ltd.	Downers Grove
Center for Reconstructive Surgery	Oak Lawn
Chicago Institute of Neurosurgery/Neuroscience	Chicago
Chicago Prostate Cancer Center	Westmont
Children's Memorial Hospital	Chicago
Community Memorial Hospital	Monmouth
Community Memorial Hospital	Staunton
Crawford-Memorial Hospital	Robinson
Crossroads Community Hospital	Mount Vernon
Danville Health Care Surgery Center, LLC	Danville
Decatur Health Care	Decatur
Decatur Memorial Hospital	Decatur
Deerfield Dermatology	Deerfield
Delnor Community Hospital	Geneva
Dermatology Associates of Hinsdale	Hinsdale
Dermatology Care Center	Maryville
Dimensions Medical Center	Des Plaines
Edwardsville Ambulatory Surgery Center, LLC	Glen Carbon
Fairfield Memorial Hospital	Fairfield
Fayette County Hospital	Vandalia
Ferrell Hospital	Eldorado
Franklin Hospital	Benton
Galesburg Dermatology Center	Galesburg
Gateway Regional Medical Center	Granite City
Gehlmann, Kalis & O'Donoghue	Oak Brook

FACILITY NAME	CITY
Genesis Cancer Center	Silvis
Gibson Area Hospital and Health Services	Gibson City
Golf Surgical Center	Des Plaines
Good Samaritan Regional Health Center	Mount Vernon
Graham Hospital	Canton
Hamilton Memorial Hospital	McLeansboro
Harrisburg Medical Center	Harrisburg
Healthsouth Sugery Center of Southern Illinois	Marion
Healthsouth Surgery Center of Belleville	Belleville
Heartland Regional Medical Center	Marion
Herrin Hospital	Herrin
Hillsboro Hospital	Hillsboro
Holy Cross Hospital	Chicago
Holy Family Medical Center	Des Plaines
Illini Community Hospital	Pittsfield
Ingalls Same Day Surgery	Tinley Park
Jackson Park Hospital	Chicago
Jersey Community Hospital	Jerseyville
John H. Stroger, Jr. Hospital of Cook County	Chicago
Katherine Shaw Bethea Hospital	Dixon
Kenneth Hall Regional Hospital	East St. Louis
Kiswaukee Community Hospital	DeKalb
Lake Forest Hospital	Lake Forest
Lawrence County Memorial Hospital	Lawrenceville
Lincoln Park Hospital	Chicago
Little Company of Mary Hospital	Evergreen Park
Magna Surgical Center	Chicago
Marion Health Care, LLC	Marion
Marshall Browning Hospital	DuQuoin
Medical Arts Association	Moline
Memorial Hospital	Belleville
Memorial Hospital	Carbondale
Memorial Hospital	Carthage
Memorial Hospital	Chester
Memorial Medical Center	Springfield
Mendota Community Hospital	Mendota
Mercy Harvard Hospital Inc.	Harvard
Mercy Hospital & Medical Center	Chicago
Methodist Hospital of Chicago	Chicago
Methodist Medical Center of Illinois	Peoria
Michael Reese Hospital and Medical Center	Chicago
Midwestern Regional Medical Center	Zion
North Shore Same Day Surgery, LLC	Evanston
Northwestern Memorial Hospital	Chicago
Northwestern University Dermatology Laboratory	Chicago

FACILITY NAME	CITY
Norwegian American Hospital	Chicago
Oak Brook Surgical Center Inc.	Oak Brook
Orland Park Surgical Center	Orland Park
OSF St. Mary Medical Center	Galesburg
Pana Community Hospital	Pana
Paris Community Hospital	Paris
Passavant Area Hospital	Jacksonville
Pekin Memorial Hospital	Pekin
Peoria Ambulatory Surgery Center/Soderstrom Dermatology Center	Peoria
Perry Memorial Hospital	Princeton
Physician's Surgical Center, Ltd.	Belleville
Pinckneyville Community Hospital	Pinckneyville
Poplar Creek Surgical Center	Hoffman Estates
Proctor Community Hospital	Peoria
Provena Covenant Medical Center	Urbana
Provena Mercy Center Health Care	Aurora
Provena United Samaritan Medical Center	Danville
Provident Hospital of Cook County	Chicago
Regional Surgicenter, Ltd.	Moline
Richland Memorial Hospital	Olney
Riverside Healthcare	Kankakee
Rochelle Community Hospital	Rochelle
Rockford Endoscopy Center	Rockford
Rush Oak Park Hospital	Oak Park
Rush Surgicenter	Chicago
Sacred Heart Hospital	Chicago
Sarah Culbertson Memorial Hospital	Rushville
Shelby Memorial Hospital	Shelbyville
Southwest Dermatology	Chicago
Sparta Community Hospital	Sparta
St. Anthony Hospital	Chicago
St. Anthony's Health Center	Alton
St. Anthony's Memorial Hospital	Effingham
St. Bernard Hospital	Chicago
St. Elizabeth's Hospital	Belleville
St. Francis Hospital	Evanston
St. Francis Hospital	Litchfield
St. Francis Hospital and Health Center	Blue Island
St. James Hospital and Health Centers	Olympia Fields
St. Joseph Hospital	Chicago
St. Joseph Memorial Hospital	Murphysboro
St. Joseph's Hospital	Breese
St. Joseph's Hospital	Highland
St. Margaret's Hospital	Spring Valley
St. Mary's Hospital	Streator

FACILITY NAME	CITY
St. Vincent Memorial Hospital	Taylorville
Swedish Covenant Hospital	Chicago
Thorek Hospital and Medical Center	Chicago
Touchette Regional Hospital	Centreville
Trinity Hospital	Chicago
Trinity Regional Health System	Moline
University of Chicago Hospital and Clinics	Chicago
University of Illinois Hosp	Chicago
Valley West Community Hospital	Sandwich
Vista Health Medical Center - East	Waukegan
Vista Health Medical Center - West	Waukegan
Wabash General Hospital	Mount Carmel

11. ACRONYMS

Acronyms used in the Illinois Health and Hazardous Substances Registry Annual Report

ABLR	Adult Blood Lead Registry
ACS	American Cancer Society
APORS	Adverse Pregnancy Outcomes Reporting System
ATPM	Association of Teachers of Preventive Medicine
BLS	Bureau of Labor Statistics
CDC	Centers for Disease Control and Prevention
CFOI	Census of Fatal Occupational Injuries
CINA	Cancer in North America
CRI	Cancer Registrars of Illinois
CTR	Certified Tumor Registrar
DCO	Death Certificate Only
DOD	Department of Defense
DRRC	Data Release and Research Committee
EPHT	Environmental Public Health Tracking
FY	Fiscal Year
GPSI	Graduate Public Service Intern
ICCCP	Illinois Comprehensive Cancer Control Program
IDHS	Illinois Department of Human Services
IDPH	Illinois Department of Public Health
IHHSR	Illinois Health and Hazardous Substance Registry
ISCR	Illinois State Cancer Registry
NAACCR	North American Association of Central Cancer Registries
NAD	North American Datum
NBDPN	National Birth Defects Prevention Network
NCI	National Cancer Institute
NIH	National Institutes of Health
NIOSH	National Institute for Occupational Safety and Health
NPCR	National Program of Cancer Registries
NTD	Neural Tube Defects
ODR	Occupational Disease Registry
OSH	Occupational Safety and Health Survey
OSHA	Occupational Safety and Health Administration
POC	Patterns of Care
PY	Project Year
RCA	Rapid Case Ascertainment
UIC	University of Illinois at Chicago
VA	Veteran's Administration
VR	Division of Vital Records