Please provide a detailed description of your **successful dental public health project/activity** by fully completing this form. Expand the submission form as needed but within any limitations noted. Please return completed form to: lcofano@astdd.org

**NOTE:** Please use Arial 10 pt. font.

### CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Stephen Beetstra, DDS MHSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Director</td>
</tr>
<tr>
<td>Agency/Organization</td>
<td>The Nisonger Center Dental Program, The Nisonger Center</td>
</tr>
<tr>
<td>Address</td>
<td>Ohio State University, 1581 Dodd Drive, Columbus OH 43210</td>
</tr>
<tr>
<td>Phone</td>
<td>Phone: 614-685-3197</td>
</tr>
<tr>
<td></td>
<td>Fax: 614-685-3212</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:stephen.beetstra@osumc.edu">stephen.beetstra@osumc.edu</a></td>
</tr>
</tbody>
</table>

### PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM

<table>
<thead>
<tr>
<th>Name</th>
<th>Diego Solis, DDS MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Dental Director of Johnstown Road Clinic, Nisonger Dental Program</td>
</tr>
<tr>
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<tr>
<td>Email Address</td>
<td><a href="mailto:Diego.solis@osumc.edu">Diego.solis@osumc.edu</a></td>
</tr>
</tbody>
</table>
**SECTION I: ACTIVITY OVERVIEW**

**Title of the dental public health activity:**

*The Nisonger Center Dental Program – Training of Dental Professional Students to Serve Persons with Disabilities*

**Public Health Functions* and the 10 Essential Public Health Services to Promote Oral Health:**

Check one or more categories related to the activity.

<table>
<thead>
<tr>
<th>“X”</th>
<th>Assessment</th>
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<tbody>
<tr>
<td></td>
<td>1. Assess oral health status and implement an oral health surveillance system.</td>
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<td>2. Analyze determinants of oral health and respond to health hazards in the community</td>
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<td></td>
<td>3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health</td>
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<tr>
<th>Policy Development</th>
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<tr>
<td>x 4. Mobilize community partners to leverage resources and advocate for/act on oral health issues</td>
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<td>x 5. Develop and implement policies and systematic plans that support state and community oral health efforts</td>
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<td>6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices</td>
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<tr>
<td>x 7. Reduce barriers to care and assure utilization of personal and population-based oral health services</td>
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<tr>
<td>x 8. Assure an adequate and competent public and private oral health workforce</td>
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<tr>
<td>x 9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services</td>
</tr>
<tr>
<td>10. Conduct and review research for new insights and innovative solutions to oral health problems</td>
</tr>
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</table>

*ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health*

**Healthy People 2030 Objectives:** Please list HP 2030 objectives related to the activity described in this submission. If there are any state-level objectives, the activity addresses please include those as well.

**Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:**

Dental student training, persons with disabilities, access to care: adults and older adults services, access to care: individuals with special health care need, prevention: adults and older adults oral health, prevention: individual with special health care needs

**Executive Summary:** Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.
The Nisonger Center Dental Program, located on the health sciences campus of the Ohio State University (OSU) but separate from the College of Dentistry, has been in existence since 1972. The Nisonger Center is a University Center of Excellence on Developmental Disabilities (UCEDD), part of a network of programs linked through the Association of University Centers on Disabilities (www.AUCD.org). The Center utilizes an interdisciplinary approach to training and providing services to children and adults with disabilities and their families. The annual budget is approximately $600,000 (the majority is for staff salaries). The support of the OSU College of Dentistry and Nationwide Children’s Hospital Dental Clinic makes it possible for the students/residents to receive training at the Nisonger Center in an interdisciplinary service delivery setting.

The focus of the Program is training through service. Each year approximately 110 fourth year dental students, 40 dental hygiene students, 8 second year pediatric dental residents, and 9 General Practice Residency/Advanced Education in General Dentistry (GPR/AEGD) residents rotate through the program. During their rotations, the students/residents receive clinical experience/training and didactic education regarding various aspects of intellectual and developmental disabilities (IDD) related to children and adults. Most patients treated at the Nisonger Center Dental Program are healthy medically and are at the moderate level to severe level of intellectual or developmental disability. Students provide dental care in a dental office setting with a focus on behavioral management techniques. Students do not get experience treating patients in a hospital setting with general anesthesia, but residents do. Dental and hygiene students are given minimal sedation experience (anxiolytics) provided through this rotation.

The intention of the training is to demonstrate that the vast majority of patients with IDD can successfully be cared for in a routine manner and require no special equipment or techniques. This training experience provides future dental health practitioners with first-hand exposure to a special segment of the population and helps to form their perceptions regarding their capability to provide dental health care for people with disabilities and shape their future clinical practices.

**SECTION II: DETAILED ACTIVITY DESCRIPTION**

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it’s being done. References and links to information may be included.

**Complete using Arial 10 pt.**

**Rationale and History of the Activity:**

1. What were the key issues that led to the initiation of this activity?

The Nisonger Center, located on the health sciences campus of the Ohio State University (OSU), is a University Center of Excellence on Developmental Disabilities (UCEDD). Individual UCEDDs collaborate through the Association of University Centers on Disabilities (AUCD). (Information about UCEDDs and the AUCD is available at the AUCD website: http://www.aucd.org/template/page.cfm?id=24)

Since 1963, UCEDDs have been working to accomplish a shared vision that foresees a nation in which all Americans, including those with disabilities, participate fully in their communities. Sixty-one Centers in every state and territory are located in a university setting. Centers are in a unique position to facilitate the flow of disability-related information between community and university. Centers work with people with disabilities, their families, state and local government agencies, and community providers in projects that provide training, technical assistance, service, research and
information sharing, all with a focus on building the capacity of communities to sustain all their citizens.

Fortunately, the dental program has received tremendous support from the local county board of Intellectual and Developmental Disabilities (IDD) that has allowed the program to expand and meet the needs of the community. What began as $30,000/year in support has grown to almost $350,000/year. In 2003, a satellite pediatric public health clinic opened to care for individuals with IDD and limited access to care. This clinic serves a high population of Hispanic and Somali patients and is located in East Columbus. The county board recognizes the need for dental services, especially for children and adults enrolled in their programs. This kind of support is unique in the U.S.

The training rotations for dental hygiene students began shortly after the opening of the Nisonger Center. Two years later, the dental student rotations began. The resident rotations came later. The training component of the Dental Program has undergone changes and expanded over the years. Prior to the opening of the Nisonger Center Dental Program, pre-doctoral and hygiene students at OSU received no training or experience providing care for individuals with IDD in an "office like" setting. Reducing barriers to care and improving access have been the primary goals of the dental program since its inception. If access to care is to improve for children and adults with developmental disabilities, the general practitioner, as well as the various dental specialists, needs to be actively involved. The general practitioner, by sheer numbers, would/should be the primary resource for care, but this has not been the case since so few dental schools offer organized experiences for their students. The OSU has made a commitment to improving access to care and has increased that commitment over time. OSU is one of the only dental schools in the US where ALL dental, dental hygiene, GPR/AEGD residents and pediatric dental residents receive clinical training and experience with children and adults with developmental disabilities while rotating through the two facilities.

What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

The Nisonger Center Dental Program is a safety net program for people with IDD in Ohio, who have difficulty finding other sources of dental care. Although the state’s Medicaid Program covers adult dental services, Medicaid has placed additional restrictions and reduced the already inadequate reimbursement to dentists. The current reimbursement does not cover the actual costs to provide care. As a result, referrals from private dentists to Nisonger have increased sharply.

The Nisonger program prepares dental professional students to serve people with IDD. The program provides rotations for the dental students with the intent to reduce the fear factor and increase the confidence level of these future dental health practitioners. The program wants to have the students experience first-hand that the majority of people with disabilities require no special techniques or modifications to provide appropriate dental care in an office setting.

Social justice is another reason for the Nisonger program. All people, including people with IDD, deserve adequate and appropriate health care including dental care. Too many people seek treatment in hospital emergency rooms suffering from their dental problems. The seeking of care in ERs is common for all experiencing lack of access to dental care in a dental home. Individuals with IDD have an increased burden in that many dental practitioners do not have a level of comfort and expertise in treating those with IDD. There is a subtle difference here, which OSU understands and is trying to alleviate. Our program wants to reduce disparities in access to dental care for people with IDD and to assure that people with disabilities are able to obtain care in a dignified manner.

There are 61 University Centers for Excellence in Developmental Disabilities (UCEDDs) located in every state and territory in the U.S. However, only a small proportion of UCEDDs have a dental program, and of the ones that do, it is unlikely that any have as strong a training component for dental/dental hygiene students and general practice/pediatric residents as does the Nisonger Center. What sets the Nisonger program apart from many other training programs at the undergraduate and residency level is the true interdisciplinary nature of the training environment.
The Dental Program also supports Ohio’s statewide strategy to build a dental workforce infrastructure that can respond to the needs of the most vulnerable residents of Ohio. The trainees represent the future dental health providers in various communities.

2. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

The Nisonger Center Dental Program began in September 1972 to provide service and training. The Center received initial funding from the Maternal and Child Health Bureau (MCHB) and later from the Agency on Developmental Disabilities (ADD). The funding from MCHB built the fixed facility that houses the Nisonger Center, purchased the initial dental equipment and supplies, and supported the hiring of a pediatric dentist on staff. The ability of these funds to support the Dental Program has eroded as program costs increased and the funds have not increased over time.

The sections below follow a logic model format. For more information on logic models go to: W.K. Kellogg Foundation: Logic Model Development Guide

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>PROGRAM ACTIVITIES</th>
<th>OUTPUTS</th>
<th>OUTCOMES</th>
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1. What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)

**Dental Staff:**

The Nisonger Center Dental staff consists of the following:

- One 0.8 FTE General practitioner- Dental Program Director
- One 1.0 FTE Pediatric practitioner
- One 0.6 FTE General practitioner
- One 1.0 FTE Dental hygienist
- Six 1.0 FTE Dental assistant
- One 1.0 FTE Office manager

The Dental Program Director is a consultant for the Association of University Centers on Disabilities (AUCD). In addition, the Director is currently the President of the Special Care Dentistry Association, which represents providers who care for medically complex, geriatric, and patients with IDD.

The professional staff provides all basic dental services, plus prosthetic, complex oral surgery, periodontal and orthodontic care. In addition to the providing direct services to patients, the dental program staff trains the dental/dental hygiene students and residents, provides in-service training for community caregivers, conducts screenings, and conducts the oral health screenings and data collection at the Ohio Special Olympics Summer Games.

**Dental Facility and Patients:**

The Nisonger Center Dental Program operates two clinics. A six-chair dental facility, located in Wexner Medical Center, is located on the main campus of the Ohio State University. The pediatric facility, a three-chair clinic and affiliated with a county run Head Start program that cares for students with IDD, is located in the Franklin County Board of Intellectual and Developmental Disabilities in East Columbus. Although the dental program serves children and adults with disabilities that run the gamut of developmental disabilities, many patients are essentially healthy medically and have mild to severe intellectual disabilities. The Dental Program Director does have operating room privileges and takes patients if needed for care under anesthesia though currently access to operating room time is difficult. The Program does not deny care to any patient based on his/her ability to pay. Due to ongoing support of the Franklin County Board of Developmental Disabilities, the Program has a sliding fee program for residents of Franklin County.
The Nisonger Center Dental Program has developed collaborations with numerous organizations that serve people with disabilities. A principal collaborator is the Franklin County Board of Developmental Disabilities, the major financial supporter of the Program. Other collaborative relationships include the Federal Agency on Developmental Disabilities, the MCHB, Special Olympics, and the Grottoes of North America Humanitarian Foundation that pay for services families cannot afford. Due to the program's longevity and reputation for high quality care, it has long-standing relationships with many IDD agencies throughout central Ohio, to provide a source of care for their clients who face barriers to care in their own communities.

Collaborations with dental educational institutions in Columbus (the OSU School of Dentistry and Nationwide Children’s Hospital that sponsors the pediatric residency program) are essential to the success of Nisonger Dental Program. Both Nisonger and these institutions derive mutual benefit from their collaborative relationship.

At the Nisonger Center, the dental program (Dentistry/Pediatric Dentistry) is just one of many programs. Others include Audiology, Health Administration, Nursing, Nutrition, Occupational Therapy, Parent/Family Resources, Pediatrics, Psychiatry, Child Psychology, Social Work, Special Education, and Speech-Language Pathology. Coordination of patient care among these departments is critical to create a truly integrated service delivery system and improve outcomes.

### Training:

The focus of the Nisonger Center Dental Program is primarily training through service. The intent of the training is to demonstrate that the vast majority of patients with intellectual developmental disabilities can receive care in a routine manner and require no special equipment or techniques. All fourth-year dental students, senior dental hygiene students, second year pediatric dental residents, and General Practice Residency/Advance Education in General Dentistry (GPR/AEGD) residents, rotate through the program. The support of the OSU College of Dentistry and Nationwide Children’s Hospital Dental Clinic make it possible for their students/residents to receive training at the Nisonger Center.

During their rotations, the students/residents receive clinical experience/training and didactic material regarding various aspects of developmental disabilities in children and adults. Prior to the pandemic, a dental student rotation was 40 hours (1 day per week for five weeks). A dental hygiene student rotation was also 40 hours (1/2 day per week for 10 weeks). A pediatric dental resident rotation was 3 days per week for a month and a GPR/AGD resident rotation is 1 day per week for a month. During these rotations, students and residents provide dental care in a dental office-like setting. The rotations do not provide experience in general anesthesia and only offer minimal sedation experience. The training focuses on patient management using behavioral techniques.

Since the COVID-19 pandemic started in spring 2020, all students and residents rotate through on a limited basis to gain experience caring for this population. We hope to resume normal rotations in the fall of 2021. Time is set aside during the rotations for didactic education. A seminar course and hands-on training covering subjects such as transfer from a wheelchair to a dental chair, seizure disorders, Down syndrome, physical assessment, informed consent, and recommendations on working with people with disabilities in a respectful manner occur during the rotation.

### Patient care:

#### Revised January 2021
The Nisonger Center utilizes an interdisciplinary approach to train students and to deliver services for children and adults with disabilities. Beside the dental team, our interdisciplinary team consists of psychiatrists, psychologists, developmental pediatricians, speech pathologists, occupational therapists, social workers, physical therapists, and special educators. The underlying principle is that developmental disabilities are not solely an educational, medical, psychological or social problem. Serving people with IDD requires the interdisciplinary team to address the various issues that arise, and these issues change as the child grows into adulthood. The dental program receives numerous referrals from the other departments at Nisonger, and the dental students and residents are encouraged to interact with professionals from these other departments to obtain a comprehensive understanding of patient’s conditions and disabilities.

3. What outputs or direct products resulted from program activities? (e.g., number of clients served, number of services units delivered, products developed, accomplishments, etc.)

**Students/residents trained:**

Number of dental students trained per year = 110*  
Number of dental hygiene students trained per year = 40  
Number of Pediatric dental residents trained per year = 8  
Number of GPR/AEGD residents trained per year = 9  
*Note: Pre-doctoral class will increase to 120 in 2021

**Patients treated:**

Number of patients treated per year = 5,000

4. What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.) Please include the following aspects:
   a. How outcomes are measured  
   b. How often they are/were measured  
   c. Data sources used  
   d. Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years)

**Practitioners who are more competent to serve people with IDD:**

To demonstrate this competency, each student must treat a patient with an IDD without the assistance of the faculty. This includes understanding medical and consent issues that often make treatment of this population difficult. This experience provides future dental health practitioners with first-hand exposure to a segment of the population that they do not routinely treat in the course of their dental education. The students/residents will be the future dental health practitioners in communities. To improve the access to care for this population, the experiences the students/residents while in training can help shape their future practices and perceptions regarding dental health care for people with disabilities. These students/residents, having provided direct services to children and adults with disabilities will feel confident to care for this population upon graduation.

**Strengthening the infrastructure of care for people with MR/DD:**
The Nisonger Center Dental Program contributes to the infrastructure and is a safety net provider of dental care to people with IDD in Ohio. The program has operated for almost 50 years and expanded its capacity in service delivery and in training students and residents. To date over 4,500 dental students, 1,200 dental hygiene students, and 450 residents received training in our facilities to care for this population since the inception of the program.

Although not all students who obtain training in the program eventually practice dentistry in Ohio, great majorities of them do, and they represent a critical element of the oral health care infrastructure for people with IDD in Ohio.

**Budgetary Information:**
NOTE: Charts and tables may be used to provide clarity.

1. **What is the annual budget for this activity?**

   The major factor enabling the Nisonger Center Dental Program to achieve its current capacity is the ongoing financial support of the Franklin County Board of Intellectual and Developmental Disabilities. The support has grown from $30,000 in the 1970s, to almost $350,000 per year currently, which is the primary funding source for the Dental Program. Franklin County is fortunate that a millage on property taxes supports the Board of Developmental Disabilities. As the county has increased in population, so has the millage and revenue. This symbiotic relationship between the Board and Nisonger ensures patients with developmental disabilities have access to care as the population has increased. Medicaid revenue, both from fee-for-service and managed care contracts, provides approximately $250,000 annually. Additional revenue comes from grants from the MCHB and the Agency on Developmental Disabilities (ADD).

2. **What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)**

   Annual program expenses are approximately $800,000. Staff salaries are 90% of the budgeted amount. Overhead is low. Wexner Medical Center covers all facility expenses and philanthropy covers new equipment purchases. This arrangement insures sustainability of the program. Any excess revenue supports the mission of the Nisonger Center. The Dental Program does not separately track educational expenses related to students and residents since the training occurs through services delivered to the patients.

   Maximization of cost and resource efficiencies occur through the utilization of unpaid dental and dental hygiene students, and residents to provide a significant amount of clinical services to Nisonger patients. The services provided by these students and residents augment the services provided by the paid clinical staff at Nisonger.

   The OSU School of Dentistry and Nationwide Children’s Hospital also realize cost and resource efficiencies by utilizing the Nisonger dental clinic as a training site for their students. Capital expenses for clinical space and equipment is unnecessary to fulfill educational standards required for students and residents.

3. **How is the activity funded?**

   See #1.

4. **What is the plan for sustainability?**
The Nisonger Center Dental Program has expanded and evolved for almost 50 years, longer than other UCEDD-sponsored dental programs. Most did not survive after the initial funding in the 1970s. The Nisonger Dental Program’s long-term sustainability is due in large part to the substantial financial support of the Franklin County Board of Developmental Disabilities. This financial support has grown from $30,000 in the 1970’s to almost $350,000 per year currently. Other sources of support include philanthropy, grants (community and Federal), and Medicaid reimbursement.

However, future sustainability for safety net programs such as the Nisonger Dental Program is a challenge. As academic institutions, local, state and national governments face deficits, the elimination or restriction of program support funds and Medicaid dental benefits threaten program operation. Unfortunately, budgetary decisions made by the Board of Regents, government officials, state legislatures, or Medicaid programs threaten the safety net provider system. To offset this potential risk, the Nisonger Dental program is branching out to create partnerships with not-for-profit community providers. Currently, we are assisting a FQHC with development of an oral health program that will focus on individuals with IDD. Through teledentistry, we will be able to expand preventive dental services at a new location and increase revenue. In addition, as an interdisciplinary research center, we have included as a five-year goal to include dentistry in our interdisciplinary research. We believe research and associated funding is vital to the overall financial security of the Nisonger Center. Movement has occurred already on this initiative. The first step is changing the electronic dental record to an electronic health record to allow for interdisciplinary research across all disciplines. The

Lessons Learned and/or Plans for Addressing Challenges:

1. What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?

   - Safety net programs like Nisonger need a secure an outside funding base in addition to clinical revenue to continue to provide services to the unserved and underserved. The key to success for the Nisonger Center Dental Program is the support of the local IDD program.

   - The support of the OSU College of Dentistry and Nationwide Children’s Hospital is critical to the success of the Nisonger Center Dental Program. The strong support of these institutions to provide this experience to their students/residents is crucial to the Nisonger Center mission.

   - It is vital to create community advocates for the program. The dental program who focuses on the IDD population will never become a large profit center for an organization. It is important to cultivate outside stakeholders who have an interest in success of the program. These individuals are vital in securing additional funding to maintain the viability of the program.

   - Organized dentistry is critical to the success of the program. In order to make significant policy and reimbursement advances for this population at the state level, you must gain the support of your state dental association. Through our interactions and support of the Ohio Dental Association, we were able to gain the approval of a behavior management fee from Medicaid for adult patients needing medical stabilization.

   - If starting a program similar to Nisonger, it would be wise to start small and be proactive when the opportunities for expansion arise. Student and Resident curricula have changed over the past few years. With the added CODA standards, dental student and hygiene rotations will increase, while resident rotations may decrease due to the increased pressure on postgraduate dental programs to become a revenue center.

2. What challenges did the activity encounter and how were those addressed?

   - We do not have enough assistant support staff for each student to work independently at the McCampbell Hall location. Though not ideal, the students assist each other. To improve clinical
performance, each student is required to participate in a behavioral management and a patient/staff safety in-service prior to caring for patients. This strategy alleviates the support staff shortage needed to train the students.

- COVID restrictions placed upon us by the Governor has limited the number of patients in the clinic at one time. The McCampbell Hall and Johnstown Road locations are an open bay design that allow one patient in the clinic at a time with the current guidelines. To alleviate this problem, we had Plexiglas walls created and external vacuums added to each chair. By doing these engineering modifications, we are able to run at 75% of our pre-COVID volume.

Available Information Resources:

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.