Abell Salutes:  
*The Community-Based Asthma Program; It Manages Children to Manage Their Asthma — And Lead Normal Lives Again...*

"Mommie, am I going to die?"...

More than 200 young people from ages two to 12 in four Baltimore elementary schools who couldn’t function because at times they couldn’t breathe, now can do both. They are the victims of the malady known as asthma, but they are the beneficiaries of a small miracle known as the Oliver Community School-Based Asthma program. Let them tell you how, for them, the program has let them live more normal lives.

Davon (eight): “I would be running, and then I couldn’t breathe. I got scared. They took me to the emergency room of Hopkins. I said to my Mom, ‘Mommie am I going to die?’”

Tavon: (six): “It was so bad I couldn’t catch my breath. It happened often in very cold weather. My mother would have to keep me home from school...”

Angelesia (ten): “When asthma acts up, it’s frightening. You walk around scared. You never know when your breathing is going to stop. But the program has changed all of that for us.”

Davon: “When my asthma acts up, when I can’t breathe, I just go inside somewhere, I take my medicine...”

(continued on page 7)

Warehouses: For Baltimore City, Ugly Ducklings With Beautiful Potential

*At Stake Are Income and Jobs; What’s Needed to Make it All Happen Are Land, Financing, and Creative Marketing*

Warehouses, historically, have not enjoyed a high place in the nomenclature of industry; always space monsters and considered an inefficient use of scarce and valuable urban land, they have been thought of as necessary but ugly ducklings of commerce. But warehousing and distribution have gone high-tech; new techniques have moved the functions into the 21st century. The ugly ducklings have become swans.

In the economy of the 90’s and beyond, large discount retailers (such as Walmart) are driving dramatic changes within the industry. These inventive leaders are using creative warehousing as an instrument to keep prices down—by doing away with back room warehousing, by reducing store inventory, and by selling larger quantities of products, making them available in pre-packaged configurations.

These strategies make it necessary for goods to arrive at the stores ready to sell at precisely the right time. The distribution center has taken on the function of packaging, pricing, and assembling. The store can postpone how it wants a product packaged, configured, or priced until the very last minute. The practice has allowed the company to more accurately match product supply to consumer demand, which in time allows a reduction in inventory.

Although as little as fifteen years ago the warehouse was a simple storage operation, today many manufacturers as well as retailers are seeing the benefits of outsourcing assembly, bundling, packaging, couponing and pricing to the warehouse/distribution center.

As a consequence, a new industry has been born—or reborn—which shifts functions from the manufacturing plant to the distribution center—blurring the lines between the two.

With the opportunity to exploit the concept for revenue, the Maryland Port Administration and Department of Employment and Economic Development have been toning up marketing muscle and going after the warehousing and distribution business. The effort is calculated to benefit the region—which is strategically located to capture a share of the dollar potential.

Unfortunately, Baltimore City has been a limited beneficiary of this regional growth. But it should be and it can be a larger beneficiary. Given the city’s need for additional jobs and revenues, perhaps it must be.

The Regional Demand Is There...

In 1991, the Baltimore region had nearly 13,000 individuals employed in warehouse/distribution ac-
tivities in 900 firms. These firms had an annual payroll of more than $300,000,000, with individuals paid on average, $24,000 per year. According to the Maryland Distribution Council, the warehousing/distribution sector has been the largest single creator of jobs in Maryland over the last three years, with over 2,500 new jobs added during this period.

In the short run, the pace of growth is almost certain to continue, since, according to Colliers Pinkard, real estate brokers, there are prospects currently in the market looking for 1,800,000 square feet of bulk distribution space in the region.

The long-run prospect for additional warehouse/distribution activity looks very favorable as well—for the region. Developers have begun to purchase warehouse land and facilities on a speculative basis in the suburbs, a sign that the market is improving.

Consolidation and centralization of distribution is likely to continue and the Baltimore area is strategically located for centralized distribution in the Eastern United States. In addition, the region has overnight truck access to 80 million people, a population that represents 32 percent of all U.S. households; 35 percent of the country’s effective buying income; 33 percent of all retail sales; 34 percent of the nation’s manufacturers.

And the region has even more going for it as a magnet for warehouse/distribution activity. Its transportation access is considered excellent, and congestion in the area is minimal compared to more northern jurisdictions. Route I-95, the primary artery of East Coast distribution, is close to Baltimore’s port terminals. Conrail and CSX offer excellent intermodal service.

The port, now operating in the black, has in Seagirt one of the most modern and efficient container handling facilities in the world, and the adjacent Intermodal Transfer facility is considered state of the art. Shipping through the port has increased steadily over the last two years, rising 16 percent in the first three quarters of 1994. NAFTA and GATT promise further increases.

As manufacturing moves further south in the Pacific rim, it is becoming more attractive for shippers to reach East Coast U.S. markets by shipping through the Suez Canal to mid-Atlantic ports such as Baltimore.

Growth in the Baltimore/Washington area will continue to attract distributors to serve one of the richest markets in the United States—6.8 million people with $87 billion in consumer spending. It is a prediction made all the more promising when one takes into account that costs in the Baltimore area for warehousing building, land and labor are less than the more densely-urbanized areas to the north.

But What About Baltimore City? How Does It Get Its Piece of the Pie?

Baltimore City already has a large base of warehouses that was built over a long period of time relating to the city’s industrial base, the port and the railroads. But the base contains many buildings that are less than ideal for current practices.

Some of these older buildings have been built nearly to the property line, forcing extremely awkward truck loading and maneuvering. They have relatively low ceiling heights, tight-column spacing, and are often not well-located in terms of interstate interchanges. These buildings are "B" buildings at best and command lower lease rates than modern structures. But for now, however, they do serve a market. Over time, their vacancy rate will rise, and older areas of the city will decline as more and more buildings become obsolete, reflecting the availability of more modern facilities in the suburbs, and even in the city.

For Baltimore City to capture a fair share of the region’s warehouse/distribution prospects, land for new construction of build-to-suit facilities must be identified. Although there are scattered sites of eight to ten acres in the city, many of these smaller parcels are in older areas and are not very competitive with a suburban alternative. Some of these sites might appeal to a single use private owner if a program were in place to target these properties and assist companies with renovation and development to make the economics competitive.

However, for the typical build-to-suit with only a five to ten year lease, financing sources look to investment-grade land and potential reuse past the initial lease—read “preference for an industrial park.” “Investment grade” land is often defined as parcels well-located in industrial parks that have amenities such as landscaping, signage, and identity in the market. These properties are abundant in the suburbs and relatively lacking in the city. Baltimore’s existing industrial parks are either filled-up or are targeted to specific industrial uses which preclude their use for warehousing.

For Baltimore City to compete with the suburbs, its best chance is to create an industrial park geared to this “investment grade” land market. While there are companies that cannot be dissuaded from suburban sites,
there are others that would consider a site in Baltimore City if it were otherwise competitive. According to David Baird, vice-president of The Belt’s Corporation and past president of the Maryland Distribution Council in Fells Point, “If land and/or buildings were available in the city for warehouse activities, there is little doubt that companies would grab them up, especially if the location had easy access to major transportation routes and port facilities.” He adds, “In fact, the resurgence of the Port of Baltimore has created strong demand for space near the marine terminals—all of which are within the city limits.”

The issues that generally inhibit city development—crime, congestion, labor force, higher taxes—are considerations, but less so with warehouse, and developers than is the case of a labor-intensive office, or manufacturing uses, or a corporate headquarters.

Despite Problems, There Are Opportunities In Baltimore City For Warehousing/Distribution. The Key Is Creative Financing Linked to Marketing.

In 1994, the Baltimore City Planning Department made a survey of vacant industrial land and vacant space in the city in preparation for an industrial strategy study. The results of their survey illustrate the difficulty facing Baltimore City.

Only six potential sites of over thirty-five acres were identified. There were eight sites of 20 to 30 acres in size, and many more sites in the 10- to 20-acre size. Of these, many are not well located for warehouse distribution development and many are suspected of having environmental problems.

According to Hammer, Siler, George Associates, which recently analyzed Baltimore’s industrial strategy, “At current absorption rates, Baltimore will run out of available land zoned for industrial users (which includes warehouse uses) in less than ten years, assuming that all vacant land is suitable for development, which it is not.” Considering the fact that it may take two or three years to develop a new industrial park in the city, the time for action is now.

Finding sources of funding for environmental remediation is the key to any kind of public industrial park development. Many of the undeveloped and under-utilized industrial sites in urban areas require remediation, placing an impossible burden on the economics of urban-versus-suburban sites, if these clean-up costs must be included in the urban projects.

The dilemma facing cities regarding these “urban brownfields” is not unique to Baltimore. The U.S. Environmental Protection Agency recently awarded grants to several cities to develop strategies for improving the process of redeveloping environmentally troubled properties. In some cases, states have stepped in to remove regulations or provide funds to mitigate the risk to financiers and developers of the purchasing and improving of the land. Baltimore has recently established a Brownfields Task Force to develop its own solutions. A resolution of the brownfields dilemma will be important to further industrial park development in the city.

Job Density Concerns

Aggressive marketing and development of land and facilities for warehousing activity has often been discouraged by cities because warehousing has always yielded fewer jobs per square foot of building or land used than other forms of industrial activity. The chart shows typical job yields from various uses.

<table>
<thead>
<tr>
<th>Use</th>
<th>Employees per 1,000 square feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>5.08</td>
</tr>
<tr>
<td>Office</td>
<td>2.88</td>
</tr>
<tr>
<td>Restaurant</td>
<td>2.58</td>
</tr>
<tr>
<td>Research and</td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>2.06</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>1.61</td>
</tr>
<tr>
<td>Training/Schools</td>
<td>1.43</td>
</tr>
<tr>
<td>Industrial Service</td>
<td>1.38</td>
</tr>
<tr>
<td>Commercial Service</td>
<td>.61</td>
</tr>
<tr>
<td>Warehouse</td>
<td>.36</td>
</tr>
</tbody>
</table>


Despite the low job density, warehouse development should still be considered an important activity to the city for the following reasons:

1) The growth in non-manufacturing industrial sector jobs and the loss in manufacturing jobs indicates that the demand for warehouse space will outpace the demand for industrial space in the city. According to the Hammer, Siler, George study, between 1980 and 1991, within the industrial sector, the nation’s manufacturing industries lost jobs (13.9 percent) while the non-manufacturing area gained jobs. The biggest job gains were found in transportation and trucking and warehousing.

Within Maryland, the manufacturing loss was more severe than the national average (19 percent), with the state losing 47,500 manufacturing jobs. Gains in the non-manufacturing industrial sector outpaced national growth with trucking and warehousing posting gains of 32 percent.

But Baltimore did not share in the state’s growth although it contributed disproportionately to the state’s losses. For example, of the 21,255 jobs gains by the state in the non-manufacturing industrial sector, Baltimore City
picked up only 938 of these jobs (less than five percent) while the suburbs picked up 2,958 (14 percent). At the same time, Baltimore City lost 32,665 manufacturing jobs, or nearly 70 percent of those lost within the state.

Because some manufacturing industries did show modest gains within the nation and state (printing, publishing, instruments, and related products) and within Baltimore (rubber & plastic products, furniture and fixtures, instruments and related products, and textiles), the City should be prepared to respond to any manufacturing growth as it occurs. However, if trends continue through the 1990's as they did through the 1980's, it will be more likely that Baltimore will gain more jobs in the non-manufacturing industrial sector than in the manufacturing area.

2) The supply of developable land is large enough to accommodate both manufacturing and warehouse uses. If planned properly, the City has enough land to develop and market to both uses.

3) In some communities, warehouse activity may be preferable to manufacturing. Warehouse activity is among the cleanest of the industrial sectors and may be more desirable to some communities with industrial zoned land. At the same time, the extensive trucking that warehouses require may make its activity incompatible in some urban areas.

4) The job density per square foot is increasing within the warehouse sector and decreasing in other industrial sectors. As warehouses increasingly take on light assembly and packaging responsibilities, the job density per-square-foot will increase. At the same time, as global pressures and advanced automation prompt the traditional manufacturing industries to downsize, the job density per square foot will decrease.

Cost-Benefit Proves Positive

In a study for The Abell Foundation, Jeff Middlebrooks of CityWorks, Inc. examined four hypothetical sites for a warehouse park in Baltimore City:

1) City of Baltimore Abandoned Vehicle Lot: this 48-acre site at 6300 Pulaski Highway lies between I-895 and I-95. Although it is currently utilized as an abandoned vehicle lot, it would be an ideal location for warehouse facilities.

2) Canton Exxon Apex: This is one of the best undeveloped areas for warehouse distribution uses (as well as for other industrial uses) in the city. It has first class access to I-95, excellent rail access and switching capabilities, and waterfront access as well.

3) Carroll Industrial Area: The Carroll Industrial Area essentially occupies the area from Russell Street on the east to Carroll Park on the west to Ostend on the north to the Gwynns Falls on the south. This area is completely within the Empowerment Zone.

4) Durrett Sheppard property: This area is located at 1201/1301 Wicomico Street. It is bound by the B&O railroad, Bayard Street, Wicomico Street and Ostend Street.

In his study, Middlebrooks examined the costs and benefits to the City of developing each of these properties and found that the financial benefits to the City far outweighed the costs. As an example, consider the Exxon/Apex property. This 108 acre site could yield 2,000,000 square feet of warehouse/distribution space (the equivalent of two Time Warner facilities and two Frito Lay facilities) and contribute 1,100 jobs to the city.

It would cost the City an estimated $48,000,000 to develop the property (including interest payments and land purchase but not including environmental clean-up). Over a 30 year period (the time allocated to pay the bonds on the $48,000,000), the City would realize $86,472,000 in revenues from land sales, real estate taxes and payroll taxes alone, yielding a net profit to the City of $38,472,000 over the thirty-year period. Middlebrooks' analysis is intended only to illustrate potential impact and is not intended to be a definitive financial scenario. The following chart summarizes the findings:

---

**PROPOSED DEVELOPMENT OF EXXON/APEX SITE**

<table>
<thead>
<tr>
<th>108 acres/2,000,000 square feet/1,100 employees</th>
</tr>
</thead>
</table>

**Expenses**

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land purchase ($115,000/acre)</td>
<td>$12,420,000</td>
</tr>
<tr>
<td>Off-Site Improvements</td>
<td>$2,600,000</td>
</tr>
<tr>
<td>Demolition</td>
<td>$3,600,000</td>
</tr>
<tr>
<td>Site Preparation ($30,000/acre)</td>
<td>$3,240,000</td>
</tr>
<tr>
<td>Interest on bonds over 30 years</td>
<td>$26,140,000</td>
</tr>
</tbody>
</table>

**TOTAL COSTS TO CITY**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$48,000,000</td>
</tr>
</tbody>
</table>

**Revenues**

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land sales ($100,000/acre x 100)</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Real Estate Taxes</td>
<td>$49,985,100</td>
</tr>
<tr>
<td>Payroll Taxes</td>
<td>$26,486,900</td>
</tr>
</tbody>
</table>

**TOTAL REVENUE TO CITY**

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$86,472,000</td>
</tr>
</tbody>
</table>

**NET PROFIT TO CITY OVER 30 YEARS**

<table>
<thead>
<tr>
<th>Profit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$38,472,000</td>
</tr>
</tbody>
</table>
The calculation assumes no inflation at all for real estate taxes and a two percent per year compounded growth in real estate value, which works out to a 135.6 percent increase for 30 years—far below the consumer price index of 452 percent from 1962 to 1992. The calculation also assumes that land sales would occur over five years, reducing debt service by $10 million within the first five years. * Expenses do not include the cost of remediating troubled land. ** Revenues do not assume any growth in property values or induced payroll.

IMPLEMENTATION: Making It Happen In Baltimore City:

Although Baltimore City is a competitive location for new warehouse distribution uses, the realities of private market economics and a lack of very many suitable sites argue persuasively that the private market will continue to develop in the suburbs. With public interest and support in a warehouse/distribution parks program the overall long-term economics and job creation can be very favorable.

A recommendation in the report by CityWorks argues that to create the most effective program a financing method and a dedicated development and marketing entity should be combined into one program, solely focusing on the development of warehouse and distribution parks.

Part I: The Marketing Entity and Invigorating the Effort

According to the CityWorks report, “The Baltimore Development Corporation (BDC) is the logical choice to continue the role that the Baltimore Economic Development Corporation (BEDCO) once played as developers of industrial parks.”

Another possibility, the report points out, is to contract with another entity to carry out the program. It suggests that the Maryland Port Administration has the resources and “could be a very good choice since there is a mutual interest in industrial park development. (The legalities would probably require some new entity be created by the City and the State to actually make it work.)

“The City could also contract with a private development firm. Private sector development firms have the expertise, but there is potential for conflict of interest if the firm is directly in the industrial park business.

“Another alternative is for Baltimore City to create a dedicated Industrial Development Authority tailored to the task. Its finances would be separate from any other agency and its tasks would be limited to industrial park development and land sales. It would take title to land combining stronger and weaker projects so as to maximize development and job creation.

“The Authority would funnel land sale proceeds back into the program to continue to acquire and develop land for sale. It would have the ability to mortgage property and to issue debt. Its debt and activities would be the sole beneficiary of the financing efforts.”

Part II: Financing the Program

Baltimore City has chosen over many years to treat its indebtedness very conservatively, so that it has a very large debt capacity that it has not used. If it chooses to use its own resources to begin a major industrial park development program, it could use traditional general obligation bonds (subject to voter approval), or it could use so-called Certificates of Participation (COPS), which make up a kind of installment financing, retired subject to annual appropriation, CDBG funds, Section 108 loans, and revenue bonds in some cases.

The City could also use its financial strength in the form of guarantees to the development entity to enable it to get conventional financing.

The city’s decision a few years ago to require any guarantees to be fully funded has eliminated that once widely used tool. A fully-funded guarantee means that a direct loan might as well be made, and that the guarantee must compete with all other City capital funding requirements.

When used with appropriate underwriting and a quality understanding of risk, the City’s ability to guarantee loans could be a powerful tool, and it was used very effectively for many years. Some very poor loans and the consequent City’s losses eliminated this tool from the City’s economic development portfolio.

In the days when federal urban renewal aid has disappeared, and CDBG (Community Development Block Grant) has dwindled, the lack of the guarantee has hurt the ability of the city to respond to real economic development needs. Well analyzed, calculated risk is a major tool the City could be using if it chose to develop a sound underwriting system.

Financing Approach

In addition to conventional public financing tools, tax increment financing (TIF) is another approach that is available in Maryland that Baltimore City has not used.

This device, used in many parts of the country, allows a jurisdiction to sell bonds which are used for infrastructure in a defined physical area. The original taxes from that area at the establishment of the district are not counted, but growth, or the increment, in the tax revenues are pledged to repay the bonds. The theory is simply that without investment in infrastructure, the particular area will not grow, therefore the City is willing to give up “x” years of the growth in
taxes to develop an area, to create jobs, and to receive taxes permanently after the bonds are repaid.

This device is available to all jurisdictions in the state with the exception of Baltimore City. The City has chosen to leave the prohibition in place for fear that there would be pressure to use it in ways that take away future property tax growth. For example, there is concern that wealthy neighborhoods would demand new swimming pools or other community facilities whose debt service would "use up" the natural growth in the assessable base that would otherwise be available for general purposes.

However, TIF's used only in industrial areas that are to be redeveloped side steps any worries about civic self discipline. If the law is modified to say that TIFs can only be established in defined industrial urban renewal areas, and that the bonds sold are used only for land acquisition and development of industrial property, there should be no further concern for misuse.

The TIF device works very well in the situation described in this paper, because the future property taxes pay off the original investment over a long period of time. TIFs work best when the districts created have a low assessable base which clearly can be put to industrial use in the predictable future. Obviously if there is public land that pays no taxes in the district, so much the better. Since the basic parameters of different areas will be more or less suitable for a TIF, districts might be combined, so as to even out the costs and revenue growth.

The interest cost and salability of the bonds will be affected by the credibility of the effort, the collateral supplied and may require the guarantee of the City. Detailed feasibility studies would of course have to be made to discover precise development costs, project absorption, model cash flows, etc. The TIF approach might have to be supplemented with some other form of financing but should be able to serve as the backbone of a well conceived and researched project.

A new, dedicated Industrial Development Authority, with appropriate skills and resources would add to the credibility of the effort, and thus assist in the acquisition of TIF financing.

Urban Renewal Powers

Each of the proposed parks should be included in a specific, industrial urban renewal plan. The City's ability to acquire land by eminent domain, or as importantly, to assert its authority to do so, is essential to success where private land is involved. The plan also provides a framework for planning, zoning, and community input.

The plan also ties to the TIF district enhancing the credibility of the program, and therefore helps selling and pricing the bonds.

CONCLUSIONS AND RECOMMENDATIONS

All of the above suggests that there is sufficient merit in a public program of industrial park development for warehouse/distribution uses. The prototypical sites described are only illustrative. It is likely that a very detailed area analysis could discover adjacent sites that could be combined into larger parcels that might prove more practical than those analyzed here. There are also other sites in the City that could be developed beyond the examples listed in this report.

It is not likely that the private sector will develop new warehouse/industrial parks in Baltimore City. However, public development allows site assembly through eminent domain if necessary, financing of land and improvements by programs not available to the private sector, and provides returns through property taxes.

The next step in a city sponsored program is a detailed feasibility study which would include a detailed area study to identify the best sites, along with:

- The investigation of the privatization/relocation of the abandoned vehicle function if that site is decided to be developable after the environmental studies have been completed.
- Appraisals of all the property involved.
- A detailed land use study of the sites and adjacent areas to delineate boundaries for new or modified urban renewal boundaries and possible TIF zones.
- Review of the legal and pragmatic advantages/disadvantages of a new industrial development authority. Analysis and recommendations concerning the best and most appropriate organizational framework for undertaking the proposed project development.
- Financial analysis of costs and benefits of the program.
- Review of financing alternatives.
- A phased implementation plan with detailed sources and uses of funds view of financing alternatives/combinations with TIF phased development plan, with detailed sources and uses of funds.

IN SUMMARY:

1) Warehouse/Distribution activity is growing in this region.

2) While the job density per-square-foot for warehouse activity is lower than most other possible uses (industrial, research, office, commercial), it is growing as modern warehousing has begun to include packaging and light assembly functions.
3) Baltimore is already home to 261 warehouse/distribution establishments employing 4,830 people; this is more than any of the suburban locations.

4) Despite this presence, new warehouse facilities are by-passing the City for suburban locations because the City has not prepared itself to compete for these new facilities (which have different needs than warehouse facilities of the past.) The city stands to lose its existing base of jobs in this area (not to mention the potential for growth in jobs in this area) if it does not respond.

5) The City has limited, available opportunities. Existing parks are filling up quickly; there are scattered sites throughout the city that need to be assembled; large tracts of land need environmental remediation. The City needs to embark on an effort to develop more industrial/warehouse parks to attract warehouse and other users.

6) The economics of a warehouse park strategy will make sense for the City. Even with the public financing required, the Exxon/Apex example proved that the city could gain or at least break even through taxes earned on the property after development expenses are deducted (assuming no growth in property value). The multiplier benefits were not calculated.

7) The City needs to move forward with an industrial/warehouse strategy and in doing so it should consider the following:

- Organizational Issues: Either BDC needs authority and resources to do it or the function should be turned over to the Port. Another possibility is private contracting or creating an Industrial Development Authority.

- Financing: Better financing techniques need to be explored. The City no longer issues guarantees; bond financing must be tied to dedicated revenue streams (the City will no longer tie it to the general revenue stream); Tax Increment Financing is prohibited only in the city.

- Urban Renewal Powers: Does it make sense for the City to get more aggressive on using its powers to create more space for these activities?

Overall, if Baltimore City could find 100 acres to develop for warehouse space, and link the availability with creative marketing and financing, its ugly-duckling warehouse and distribution business of the 1950's could, by 2000, turn into an economic development swan: 2-million sq. ft. of warehouse facilities, increased income for the City, and 1,100 jobs for city residents.

Abell Salutes: Asthma Program

(Continued from page 1)

cine and I stay calm. But it doesn’t happen to us much any more. Used to be, a lot of us missed school often. We don’t miss school because of our asthma.”

Angelesia: The program provides us with medicine—it’s important to take it, and with certain breathing devices, and it’s important to use them. We carry all of it with us, or we’re never far from them.”

Davon: Our whole house has changed. The program got my parents to stop smoking. We threw out all our stuffed animals. We even had to get rid of Spike—our dog. But now we can breathe...we run and play with the other kids, and we go out in most any kind of weather.”

Angelesia: “The program has changed our lives...”

The Oliver Community School-Based Asthma program was initiated in 1993 with an Abell grant to Johns Hopkins University. It is a pilot project designed to demonstrate the effectiveness of a working partnership between neighborhood schools and outreach efforts of Johns Hopkins. The project’s objectives are to reduce the incidence of childhood asthma in Baltimore’s inner city; to reduce absenteeism and hospital emergency room usage; and to increase the community based support available to parents dealing with asthma-related problems.

In Baltimore, 12 percent of Baltimore City’s first graders and 11.2 percent of eleventh graders have asthma, reflective of national trends of asthma among innercity youth. Asthma is the cause of 6.1 percent of pediatric admissions at Johns Hopkins, making it the most common admitting diagnosis for children. Sixty-seven percent of the children receiving homebound teaching in Baltimore City through the Chronically Health Impaired Program are enrolled for asthma related problems.

The costs of asthma related hospitalization and emergency room visits are great. If asthma can be better managed by children and their parents with minimum use of emergency hospital services, public costs to support the asthma population and the number of difficult episodes experienced by children would be decreased. It would follow that school attendance and attention in class would likely improve.

The more than 200 students, identified through teachers, school nurses and health department records,
attend educational sessions in schools. Their pulmonary function is monitored by a nurse. Parents attend the last session and receive separate adult-oriented education. Community health workers, recruited from among the parents conduct home visits and assist families with environmental problems.

The two-year-old program serves students in four Baltimore City elementary schools who have been identified as in need of the program: Harford Heights, Dr. Bernard Harris, Sr., Johnson Square, and Madison Square. Dr. Peyton Eggleston, Professor of Pediatrics at Johns Hopkins University Hospital, is the director; the initiative is sponsored by the hospital and The Abell Foundation, and costs $180,000 annually.

According to Daphne Morgan, a nurse in the program working at Harford Heights, “Experts say asthma is the number one reason children miss school, show up in emergency rooms, and are admitted to hospitals.

“Although a minor problem in the suburbs, physicians describe asthma as out of control in cities like Baltimore, because of problems such as deteriorating housing and pollution.”

Among the first group of children evaluated after participation in the program, 63 percent had missed school because of asthma before entering the program, and only five percent the semester after the intervention. The follow-up evaluation of over 150 children showed that almost half of the children had visited the emergency room for acute asthma at least once before the program and 16 percent reported a hospitalization; after enrollment in the program, only 12 percent had visited an emergency room and five percent were hospitalized.

In addition to the classroom session and home visiting program, families are served by a hotline in the Johns Hopkins Pediatric Emergency Room and a pharmacy safety net, a program designed to ensure the availability of necessary medications that has been created working through local pharmacists.

Not inconsequentially, the program has resulted in meaningful savings to hospitals participating in the program. In the fall of 1994, 114 children had adequate follow-up data. Before the program they reported a total of 56 emergency room visits and 29 hospitalizations for asthma in the previous six months. When evaluated six months after the program, this same group reported 13 emergency room visits and six hospitalizations. Hospital costs to serve this group before the operation of the program were $136,750; afterwards, $29,000. The savings ($107,750) are over the annual cost of the program.

Continuation of the program has been underwritten by a grant through Johns Hopkins from the Health Services Cost Review Commission of Maryland.

* * *

Perhaps little Davon, an eight year old first grader at Harford Heights Elementary School, speaks the gratitude of all of the children in the program: “I learned how and when to take my medicine. I learned how to relax and stay calm. I learned how to live a normal life.”

These children, once frightened, are now confident. They can breathe easier.

And because they can, we can, too.